AS and TS Approved

## **Abstract 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)

1	100.98.119		
	Supply of DI K9 Pipe Conforming	g to IS 8329/2000, 300mm Dia.	
	( )	Net Total Quantity 1	870.000 metre
	Say 1	870.000 metre @ Rs 4520.63 / metre	Rs 8453578.10
2	100.98.120		
	Supply of DI K9 Pipe Conforming	g to IS 8329/2000, 350mm Dia.	
	***	Net Total Quantity 5	353.000 metre
	Say 5	353.000 metre @ Rs 5506.95 / metre	Rs 29478703.35
3	100.98.461 Supply of Cl Double Flanged Sli	uice Valve Conforming to IS 14846 - 20	00 Stuice Valve with Can PN
	Size 200mm.	and valve commitming to lot 10 to 125	oo, Sidice valve will cap Fiv
		Net Total Quantity 5	*
			,
4	Size 200mm. 100.98.463	Net Total Quantity 5	5.000 No Rs 118618.25
4	Size 200mm.  100.98.463 Supply of CI Double Flanged Sla	Net Total Quantity 5 Say 5.000 No @ Rs 23723.65 / No	5.000 No  Rs 118618.25  00, Sluice Valve with Cap PN
4	Size 200mm.  100.98.463 Supply of CI Double Flanged Sla	Net Total Quantity 5 Say 5.000 No @ Rs 23723.65 / No uice Valve Conforming to IS 14846 - 200	5.000 No  Rs 118618.25  00, Sluice Valve with Cap PN
4 5	Size 200mm.  100.98.463 Supply of CI Double Flanged Slasize 300mm.	Net Total Quantity 5 Say 5.000 No @ Rs 23723.65 / No uice Valve Conforming to IS 14846 - 200 Net Total Quantity 1	.000 No  Rs 118618.25  00, Sluice Valve with Cap PN  .000 No  Rs 43312.35
	Size 200mm.  100.98.463 Supply of CI Double Flanged Sla Size 300mm.  100.98.464 Supply of CI Double Flanged Sla	Net Total Quantity 5 Say 5.000 No @ Rs 23723.65 / No uice Valve Conforming to IS 14846 - 200  Net Total Quantity 1 Say 1.000 No @ Rs 43312.35 / No	.000 No  Rs 118618.25  00, Sluice Valve with Cap PN  .000 No  Rs 43312.35  00, Sluice Valve with Cap PN

6	od41949/2020_2021 Supply DI specials,Tees,Bends,Collars,Tapers etc.				
	Net Total Quantity	59.982 quintal			
	Say 59.982 quintal @ Rs 20384.00 / quintal	Rs 1222673.09			
7	100.98.436				
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Kinetic Air Valve Type DK, Size 80				
	Net Total Quantity	4.000 No			
	Say 4.000 No @ Rs 11748.55 / No	Rs 46994.20			
8	100.98.437				
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Kinetic Air Valve	ve Type DK, Size 100mm.			
	Net Total Quantity	6.000 No			
	Say 6.000 No @ Rs 17963.75 / No	Rs 107782.50			
1	GLSR to Kalthotty sump (Re-arranging)-(b) Working charges  100.1.1  Excavating trenches of required width for pipes, cables, etc includeressing of sides, ramming of bottoms, depth up to 1.5 m, including				
	then returning the soil as required, in layers not exceeding 20 cm in deposited layer by ramming, watering, etc. and disposing of surplus lead of 50 m:  All kinds of soil  Kerala Water Authority	depth, including consolidatingeach			
	(Ref. Item No. 2.10.1 of DSR)				
	Net Total Quantity	7346.919 cum			
	Say 7346.919 cum @ Rs 579.85 / cum	Rs 4260110.98			
2	100.1.5 Excavating trenches of required width for pipes, cables, etc includressing of sides, ramming of bottoms, depth up to 1.5 m, including then returning the soil as required, in layers not exceeding 20 cm in deposited layer by ramming, watering, etc. and disposing of surplus lead of 50 m:" Ordinary Rock.	iding excavation for sockets, and getting out the excavated soil, and depth, including consolidatingeach			
	(Ref. Item No. 2.13.1 of DSR)				
	Net Total Quantity	1763.261 cum			

	100.00		
3	100.2.2	al magne in foundation transhes or	
	Excavation work by mechanical means (Hydraulic excavator) / manuadrains (not exceeding 1.5 m in width or 10 m2 on plan), including		
	bottoms, lift up to 1.5 m, including getting out the excavated soil and	•	
	as directed, within a lead of 50 m.	disposar of surplus executated sells	
	Medium Rock (blasting prohibited)		
	New Data derived from Item No.2.9.3		
	Net Total Quantity	293.878 cum	
	Say 293.878 cum @ Rs 1106.34 / cum	Rs 325128.99	
4	2.7.3		
	Earth work in excavation by mechanical means (Hydraulic excava	ator )/ manual means over areas	
	(exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on pla	•	
	earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be level	elled and neatly dressed.Hard rock	
	(blasting prohibited		
	Net Total Quantity	195.918 cum	
	Say 195.918 cum @ Rs 1248.58 / cum	Rs 244619.30	
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	e intial lead of 50m and lift upto	
	1.50m(intial depth 0 m to 1.50m) and providing protection by earth fil	led cement bags during blasting to	
	avoid damages to nearby structures(200 Nos. of earth filled cement by	pags for 10m3 blasting)	
	(Ref. Item No. 1004 A of T C) Water Authority		
	Net Total Quantity	195.918 cum	
	Say 195.918 cum @ Rs 4093.40 / cum	Rs 801970.74	
6	100.8.1		
Ü	Fencing one side of trenches, 1.50 m height with two rows of 10 c	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)		
	Net Total Quantity	2900.000 metre	
	Say 2900.000 metre @ Rs 28.82 / metre	Rs 83578.00	
7	100.8.2		
	Fencing 1.50m high with two rows of casuarina poles (girth 15cm to 24cm) tied with coir yarn on vertica		
	casuarina pole (girth 15cm to 24cm) fixed at 1.5m intervals.		
	NEW DATA (Prepared based on PWD SDB - Item No.1009		
	Net Total Quantity	4000.000 metre	
	Say 4000.000 metre @ Rs 99.36 / metre	Rs 397440.00	
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	•	
	50 m and lift up to 1.5 m as per direction of site Engineer-in-charge		

	Net Total Quantity	350.000 cum
	Say 350.000 cum @ Rs 548.85 / cum	Rs 192097.50
9	100.14.5 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iro excluding cost of pipes and specials: 300 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.19 in DAR	on Pipes conforming to IS: 83:
	Net Total Quantity	1833.000 metre
	Say 1833.000 metre @ Rs 214.13 / metre	Rs 392500.29
10	100.14.6 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iro excluding cost of pipes and specials: 350 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.20 in DAR	on Pipes conforming to IS: 83
	Net Total Quantity	5248.000 metre
	Say 5248.000 metre @ Rs 283.70 / metre	Rs 1488857.60
11	100.31.1.5 "Conveying and fixing C.I. sluice valves (with cap) by providing of	complete with bolts, nuts, rubb
	insertions etc. excluding the cost of valve (the tail pieces if requies 200 mm diameter. Class I"  Data derived from item no.18.31.4.1 of DAR  Net Total Quantity	
	200 mm diameter. Class I"  Data derived from item no.18.31.4.1 of DAR  Kerala Water Authority	5.000 Nos
12	200 mm diameter. Class I"  Data derived from item no.18.31.4.1 of DAR  Net Total Quantity	5.000 Nos  Rs 8129.50  complete with bolts, nuts, rubb
12	200 mm diameter. Class I"  Data derived from item no.18.31.4.1 of DAR  Net Total Quantity  Say 5.000 Nos @ Rs 1625.90 / Nos  100.31.1.7  "Conveying and fixing C.I. sluice valves (with cap) by providing of insertions etc. excluding the cost of valve (the tail pieces if requi 300 mm diameter. Class I"	5.000 Nos  Rs 8129.50  complete with bolts, nuts, ruble red will be paid separately):
12	200 mm diameter. Class I" Data derived from item no.18.31.4.1 of DAR  Net Total Quantity  Say 5.000 Nos @ Rs 1625.90 / Nos  100.31.1.7  "Conveying and fixing C.I. sluice valves (with cap) by providing of insertions etc. excluding the cost of valve (the tail pieces if requi 300 mm diameter. Class I"  Data derived from item no.18.31.6.1 of DAR	5.000 Nos  Rs 8129.50  complete with bolts, nuts, ruble red will be paid separately):
12	200 mm diameter. Class I" Data derived from item no.18.31.4.1 of DAR  Net Total Quantity  Say 5.000 Nos @ Rs 1625.90 / Nos  100.31.1.7  "Conveying and fixing C.I. sluice valves (with cap) by providing of insertions etc. excluding the cost of valve (the tail pieces if requi 300 mm diameter. Class I"  Data derived from item no.18.31.6.1 of DAR  Net Total Quantity	5.000 Nos  Rs 8129.50  complete with bolts, nuts, rubbared will be paid separately):  1.000 Nos  Rs 2708.11  complete with bolts, nuts, rubbared with bolts,
	200 mm diameter. Class I"  Data derived from item no.18.31.4.1 of DAR  Net Total Quantity  Say 5.000 Nos @ Rs 1625.90 / Nos  100.31.1.7  "Conveying and fixing C.I. sluice valves (with cap) by providing of insertions etc. excluding the cost of valve (the tail pieces if requi 300 mm diameter. Class I"  Data derived from item no.18.31.6.1 of DAR  Net Total Quantity  Say 1.000 Nos @ Rs 2708.11 / Nos  100.31.1.8  "Conveying and fixing C.I. sluice valves (with cap) by providing of insertions etc. excluding the cost of valve (the tail pieces if requi 350 mm diameter. Class I"	5.000 Nos  Rs 8129.50  complete with bolts, nuts, rubble red will be paid separately):  1.000 Nos  Rs 2708.11  complete with bolts, nuts, rubble red will be paid separately):

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14	100.32.4 Conveying and fixing C I Single acting Air Valve of approved quality w excluding the cost of air valve(the tail pieces if required will be paid se	
	80 mm Double acting Air Valve	
	Data derived from item no.18.59.2 of DAR	
	Net Total Quantity	
	Say 4.000 Nos @ Rs 229.21 / Nos	Rs 916.84
15	100.32.5  Conveying and fixing C I Single acting Air Valve of approved quality we excluding the cost of air valve(the tail pieces if required will be paid see 100 mm Double acting Air Valve	
	Net Total Quantity	6.000 Nos
	Say 6.000 Nos @ Rs 351.21 / Nos	Rs 2107.26
16	18.30.7 Providing flanged joints to double flanged C.I./ D.I pipes and specials diameter pipe	, including testing of joints:300 mn
	Net Total Quantity	70.000 Nos
	Say 70.000 Nos @ Rs 603.77 / Nos	Rs 42263.90
17	18.30.8 Providing flanged joints to double flanged C.I./ D.I pipes and specials diameter pipe  Kerala Water Authority	, including testing of joints:350 mn
	Net Total Quantity	100.000 Nos
	Say 100.000 Nos @ Rs 811.46 / Nos	Rs 81146.00
18	18.70.5  Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Dijoints and including the cost of rubber gasket:300 mm dia pipe	uctile Iron Pipes including testing o
	Net Total Quantity	300.000 joint
	Say 300.000 joint @ Rs 430.68 / joint	Rs 129204.00
19	18.70.6 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Dijoints and including the cost of rubber gasket:350 mm dia pipes	uctile Iron Pipes including testing o
	Net Total Quantity	1000.000 joint
	Say 1000.000 joint @ Rs 456.93 / joint	
20	18.24	ı
	Laying in position S & S or flanged C.I. special such as tees, bend excluding cost of specials).	ds, collars, tapers and caps etc.
	Net Total Quantity	59.982 quintal
	Say 59.982 quintal @ Rs 603.91 / quintal	Rs 36223.73
	, i i	l

21	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechang 300 mm dia	nical jointing as per IS 13382:Upto
	Net Total Quantity	2.400 quintal
	Say 2.400 quintal @ Rs 14708.65 / quintal	Rs 35300.76
22	18.67.2 Providing and laying S & S C.I. Standard specials suitable for mechan 300 mm dia	ical jointing as per IS 13382:Above
	Net Total Quantity	6.200 quintal
	Say 6.200 quintal @ Rs 15492.79 / quintal	Rs 96055.30
23	18.83.7 Labour for cutting C.I. pipe with steel saw.300 mm diameter C.I. pipe	
	Net Total Quantity	10 000 Each Cut
	4.7 80 2.7	Rs 6716.30
	Say 10.000 Each Cut @ Rs 671.63 / Each Cut	KS 07 10.30
24	18.83.8  Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe	
	Net Total Quantity	25 000 Fach Cut
	Say 25.000 Each Cut @ Rs 781.10 / Each Cut	Rs 19527.50
25	100.35.5	13 13321.30
25	Testing 300mm DI/CI pipeline with potable water to the required test pr	essure.
	300 mm dia	
	Observed Data derived from item no.1023 of PHED DATA	<b>\</b>
	Net Total Quantity	1833.000 metre
	Say 1833.000 metre @ Rs 57.81 / metre	Rs 105965.73
26	100.35.6 Testing 350mm DI/CI pipeline with potable water to the required test pr 350 mm dia Observed Data derived from item no.1024 of PHED DATA	essure.
	Net Total Quantity	5248.000 metre
	Say 5248.000 metre @ Rs 70.53 / metre	Rs 370141.44
27	4.1.3  Providing and laying in position cement concrete of specified grade eshuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)	•
	Net Total Quantity	10.000 cum
	Say 10.000 cum @ Rs 8340.93 / cum	Rs 83409.30

28	5.9.1 Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete	for:Foundations, footings, bases
	Net Total Quantity	40.000 sqm
	Say 40.000 sqm @ Rs 350.00 / sqm	Rs 14000.00
29	2.8.1 Earth work in excavation by mechanical means (Hydraulic excava trenches or drains (not exceeding 1.5 m in width or 10 sqm on plar ramming of bottoms, lift up to 1.5 m, including getting out the exca excavated soil as directed, within a lead of 50 m.All kinds of soil	n), including dressing of sides a
	Net Total Quantity	65.341 cum
	Say 65.341 cum @ Rs 309.95 / cum	Rs 20252.44
	Excavation work by mechanical means (Hydraulic excavator) / manual drains (not exceeding 1.5 m in width or 10 sqm on plan), including bottoms, lift up to 1.5 m, including getting out the excavated soil and as directed, within a lead of 50 m.Ordinary rock	dressing of sides and ramming disposal of surplus excavated so
	Net Total Quantity	65.341 cum
	Say 65.341 cum @ Rs 550.62 / cum	Rs 35978.06
31	4.1.6 Providing and laying in position cement concrete of specified grade eshuttering - All work up to plinth level:1:3:6 (1 cement: 3 coarse sand nominal size)  Net Total Quantity	: 6 graded stone aggregate 40 r
	Say 17.425 cum @ Rs 7527.06 / cum	Rs 131159.02
32	5.1.2 Providing and laying in position specified grade of reinforced ceme centering, shuttering, finishing and reinforcement - All work up to plinth sand :3 graded stone aggregate 20 mm nominal size  Net Total Quantity	n level:1:1:5:3 (1 cement 1.5 coa
33	Say 69.409 cum @ Rs 9483.15 / cum  5.22.2  Steel reinforcement for R.C.C work including straightening, cutting binding all complete upto plinth levelHard drawn steel wire	
	Net Total Quantity	7000.000 kilogram
	Say 7000.000 kilogram @ Rs 105.23 / kilogram	Rs 736610.00
34	5.9.2 Centering and shuttering including strutting, etc. and removal of form attached pilasters, butteresses, plinth and string courses etc.	for:Walls (any thickness) includ

	Net Total Quantity	202.500 sqm
	Say 202.500 sqm @ Rs 748.62 / sqm	Rs 151595.55
35	13.1.1	
	12 mm cement plaster of mix:1:4 ( 1 cement : 4 fine sand)	
	Net Total Quantity	170.100 sqm
	Say 170.100 sqm @ Rs 327.85 / sqm	Rs 55767.29
3Appe	ndix A - (2) - Supply and laying 300 mm DI pumping main from Kalth arranging)- (a) cost of matreials (Cost Index:41	
1	100.98.119 Supply of DI K9 Pipe Conforming to IS 8329/2000, 300mm Dia.	
	Net Total Quantity	4927.000 metre
	Say 4927.000 metre @ Rs 4520.63 / metre	Rs 22273144.01
2	100.98.461	2 ==== · · · · · · · ·
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20 Size 200mm.	000, Sluice Valve with Cap PN
	Net Total Quantity	4.000 No
	Say 4.000 No @ Rs 23723.65 / No	Rs 94894.60
3	100 98 463	
3	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20 Size 300mm.  Kerala Water Authority	·
3	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20	·
3	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20 Size 300mm. Kerala Water Authority	·
4	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20 Size 300mm.  Net Total Quantity	2.000 No Rs 86624.70
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20 Size 300mm.  Kerala Water Authority  Net Total Quantity  Say 2.000 No @ Rs 43312.35 / No 100.98.440	2.000 No  Rs 86624.70  Small Orifice Type S1, Size 25m
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20 Size 300mm.  Kerala Water Authority  Net Total Quantity  Say 2.000 No @ Rs 43312.35 / No  100.98.440  Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, S	2.000 No  Rs 86624.70  Small Orifice Type S1, Size 25m
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20 Size 300mm.  Net Total Quantity  Say 2.000 No @ Rs 43312.35 / No  100.98.440  Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Sing	2.000 No  Rs 86624.70  Small Orifice Type S1, Size 25m 3.000 No  Rs 16910.25
4	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20 Size 300mm.  Kerala Water Authority  Net Total Quantity  Say 2.000 No @ Rs 43312.35 / No  100.98.440  Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Single Orifi	2.000 No  Rs 86624.70  Small Orifice Type S1, Size 25m 3.000 No  Rs 16910.25  Large Orifice Type S2, Size 50m
4	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20 Size 300mm.  Kerala Water Authority  Net Total Quantity  Say 2.000 No @ Rs 43312.35 / No  100.98.440  Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Some Net Total Quantity  Say 3.000 No @ Rs 5636.75 / No  100.98.444  Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, IN Net Total Quantity  Net Total Quantity	2.000 No  Rs 86624.70  Small Orifice Type S1, Size 25m 3.000 No  Rs 16910.25  Large Orifice Type S2, Size 50m 5.000 No
4	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20 Size 300mm.  Kerala Water Authority  Net Total Quantity  Say 2.000 No @ Rs 43312.35 / No  100.98.440  Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Sometime of the South State of the So	2.000 No  Rs 86624.70  Small Orifice Type S1, Size 25m 3.000 No  Rs 16910.25  Large Orifice Type S2, Size 50m
5	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 26 Size 300mm.  Kerala Water Authority  Net Total Quantity  Say 2.000 No @ Rs 43312.35 / No  100.98.440  Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Society of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Society of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Long Net Total Quantity  Say 3.000 No @ Rs 5636.75 / No  Net Total Quantity  Say 5.000 No @ Rs 6110.65 / No  od41949/2020_2021  Supply DI specials, Tees, Bends, Collars, Tapers etc.	2.000 No  Rs 86624.70  Small Orifice Type S1, Size 25m 3.000 No  Rs 16910.25  Large Orifice Type S2, Size 50m 5.000 No  Rs 30553.25
5	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20 Size 300mm.  Kerala Water Authority  Net Total Quantity  Say 2.000 No @ Rs 43312.35 / No  100.98.440  Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Sometime of the South State of the So	2.000 No  Rs 86624.70  Small Orifice Type S1, Size 25m 3.000 No  Rs 16910.25  Large Orifice Type S2, Size 50m 5.000 No  Rs 30553.25

1 100.1.1  Excavating trenches of required width for pipes, cables, etc including excavation for socke dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated s then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidati	oil, and
deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, velocities lead of 50 m:  All kinds of soil	-
(Ref. Item No. 2.10.1 of DSR)	
Net Total Quantity 4528.125 cum	
Say 4528.125 cum @ Rs 579.85 / cum Rs 2625633.28	
2 100.1.5  Excavating trenches of required width for pipes, cables, etc including excavation for socked dressing of sides, ramming of bottoms, depth up to 1.5 m, including getting out the excavated so then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, we lead of 50 m:  Ordinary Rock.  (Ref. Item No. 2.13.1 of DSR)	oil, and
Net Total Quantity 905.625 cum	
Say 905.625 cum @ Rs 842.10 / cum Rs 762626.81	
3 100.2.2  Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trendrains (not exceeding 1.5 m in width or 10 m2 on plan), including dressing of sides and rambottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated as directed, within a lead of 50 m.  Medium Rock (blasting prohibited)  New Data derived from Item No.2.9.3	ming of
Net Total Quantity 301.875 cum	
Say 301.875 cum @ Rs 1106.34 / cum Rs 333976.39	
2.7.3  Earth work in excavation by mechanical means (Hydraulic excavator )/ manual means ove (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of exceeding the earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed. Has (blasting prohibited)	avated
Net Total Quantity 181.125 cum	
Say 181.125 cum @ Rs 1248.58 / cum Rs 226149.05	

5	100.4.1 Excavating in hard rock for trenches by blasting for laying pipes measurements and disposing unserviceable materials within the 1.50m(intial depth 0 m to 1.50m) and providing protection by earth fill avoid damages to nearby structures(200 Nos. of earth filled cement by (Ref. Item No. 1004 A of T C)	e intial lead of 50m and lift upto led cement bags during blasting to
	Net Total Quantity	120.750 cum
	Say 120.750 cum @ Rs 4093.40 / cum	Rs 494278.05
6	50.2.25.1 Filling with contractor's own earth (excluding rock) in trenches, plinth not exceeding 20 cm in depth, consolidating each deposited layer by 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	•
	Net Total Quantity	250.000 cum
	Say 250.000 cum @ Rs 548.85 / cum	Rs 137212.50
7	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)	cm plastic caution tape in vertica
	Net Total Quantity	4000.000 metre
	Say 4000.000 metre @ Rs 28.82 / metre	Rs 115280.00
8	100.14.5 Kerala Water Authority Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Irrectly excluding cost of pipes and specials: 300 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.19 in DAR	on Pipes conforming to IS: 8329
	Net Total Quantity	4830.000 metre
	Say 4830.000 metre @ Rs 214.13 / metre	Rs 1034247.90
9	18.70.5  Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Digionts and including the cost of rubber gasket:300 mm dia pipe	uctile Iron Pipes including testing o
	Net Total Quantity	800.000 joint
	Say 800.000 joint @ Rs 430.68 / joint	Rs 344544.00
10	18.30.7 Providing flanged joints to double flanged C.I./ D.I pipes and specials diameter pipe	, including testing of joints:300 mn
	Net Total Quantity	100.000 Nos
	Say 100.000 Nos @ Rs 603.77 / Nos	Rs 60377.00
11	18.83.7 Labour for cutting C.I. pipe with steel saw.300 mm diameter C.I. pipe	

	Net Total Quantity	00:000 Edon Odt
	Say 50.000 Each Cut @ Rs 671.63 / Each Cut	Rs 33581.50
12	100.35.5	
	Testing 300mm DI/CI pipeline with potable water to the required test pro	essure.
	300 mm dia	
	Observed Data derived from item no.1023 of PHED DATA	
	Net Total Quantity	4830.000 metre
	Say 4830.000 metre @ Rs 57.81 / metre	Rs 279222.30
13	100.31.1.5	
	"Conveying and fixing C.I. sluice valves (with cap) by providing c	omplete with bolts, nuts, rub
	insertions etc. excluding the cost of valve (the tail pieces if requi	red will be paid separately)
	200 mm diameter. Class I"	
	Data derived from item no.18.31.4.1 of DAR	
	Net Total Quantity	4.000 Nos
	Say 4.000 Nos @ Rs 1625.90 / Nos	Rs 6503.60
14	100.31.1.7	113 0000.00
	insertions etc. excluding the cost of valve (the tail pieces if require 300 mm diameter. Class I"  Data derived from item no.18.31.6.1 of DAR	red will be paid separately)
	300 mm diameter. Class I"	
	300 mm diameter. Class I"  Data derived from item no.18.31.6.1 of DAR	
15	300 mm diameter. Class I"  Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity	2.000 Nos
15	300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity  Say 2.000 Nos @ Rs 2708.11 / Nos	2.000 Nos Rs 5416.22
15	300 mm diameter. Class I"  Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity  Say 2.000 Nos @ Rs 2708.11 / Nos  100.32.1  Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid segments).	2.000 Nos  Rs 5416.22  th bolts,nuts,rubber insertions
15	300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity  Say 2.000 Nos @ Rs 2708.11 / Nos  100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid seg 25 mm Single acting Air Valve	2.000 Nos  Rs 5416.22  th bolts,nuts,rubber insertions
15	300 mm diameter. Class I"  Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity  Say 2.000 Nos @ Rs 2708.11 / Nos  100.32.1  Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid segments).	2.000 Nos  Rs 5416.22  th bolts,nuts,rubber insertions
15	300 mm diameter. Class I"  Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity  Say 2.000 Nos @ Rs 2708.11 / Nos  100.32.1  Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid seg 25 mm Single acting Air Valve	2.000 Nos  Rs 5416.22  th bolts,nuts,rubber insertions operately):
15	300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity  Say 2.000 Nos @ Rs 2708.11 / Nos  100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid seg 25 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR	2.000 Nos  Rs 5416.22  th bolts,nuts,rubber insertions operately):
15	300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity  Say 2.000 Nos @ Rs 2708.11 / Nos  100.32.1  Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid seg 25 mm Single acting Air Valve  Observed Data derived from item no.18.59.of DAR  Net Total Quantity	2.000 Nos  Rs 5416.22  th bolts,nuts,rubber insertions perately):  3.000 Nos
	300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity  Say 2.000 Nos @ Rs 2708.11 / Nos  100.32.1  Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid seg 25 mm Single acting Air Valve  Observed Data derived from item no.18.59.of DAR  Net Total Quantity  Say 3.000 Nos @ Rs 146.63 / Nos	2.000 Nos  Rs 5416.22  th bolts,nuts,rubber insertions perately):  3.000 Nos  Rs 439.89
	300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR   Kerala Water Net Total Quantity  Say 2.000 Nos @ Rs 2708.11 / Nos  100.32.1  Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid seg 25 mm Single acting Air Valve  Observed Data derived from item no.18.59.of DAR  Net Total Quantity  Say 3.000 Nos @ Rs 146.63 / Nos  100.32.3	2.000 Nos  Rs 5416.22  th bolts,nuts,rubber insertions perately):  3.000 Nos  Rs 439.89  th bolts,nuts,rubber insertions
	300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity  Say 2.000 Nos @ Rs 2708.11 / Nos  100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid seg 25 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR  Net Total Quantity  Say 3.000 Nos @ Rs 146.63 / Nos  100.32.3 Conveying and fixing C I Single acting Air Valve of approved quality wire  Results of the control of the con	2.000 Nos  Rs 5416.22  th bolts,nuts,rubber insertions perately):  3.000 Nos  Rs 439.89  th bolts,nuts,rubber insertions
	300 mm diameter. Class I"  Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity  Say 2.000 Nos @ Rs 2708.11 / Nos  100.32.1  Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid seg 25 mm Single acting Air Valve  Observed Data derived from item no.18.59.of DAR  Net Total Quantity  Say 3.000 Nos @ Rs 146.63 / Nos  100.32.3  Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid seg	2.000 Nos  Rs 5416.22  th bolts,nuts,rubber insertions operately):  3.000 Nos  Rs 439.89  th bolts,nuts,rubber insertions of the bolts
	300 mm diameter. Class I"  Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity  Say 2.000 Nos @ Rs 2708.11 / Nos  100.32.1  Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid seg 25 mm Single acting Air Valve  Observed Data derived from item no.18.59.of DAR  Net Total Quantity  Say 3.000 Nos @ Rs 146.63 / Nos  100.32.3  Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid seg 50 mm Double acting Air Valve	2.000 Nos  Rs 5416.22  th bolts,nuts,rubber insertions operately):  3.000 Nos  Rs 439.89  th bolts,nuts,rubber insertions operately):
	300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity  Say 2.000 Nos @ Rs 2708.11 / Nos  100.32.1  Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid segons of the paid sego	2.000 Nos  Rs 5416.22  th bolts,nuts,rubber insertions operately):  3.000 Nos  Rs 439.89  th bolts,nuts,rubber insertions operately):
16	300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity  Say 2.000 Nos @ Rs 2708.11 / Nos  100.32.1  Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid seg 25 mm Single acting Air Valve  Observed Data derived from item no.18.59.of DAR  Net Total Quantity  Say 3.000 Nos @ Rs 146.63 / Nos  100.32.3  Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid seg 50 mm Double acting Air Valve  Data derived from item no.18.59.1 of DAR  Net Total Quantity  Say 5.000 Nos @ Rs 229.21 / Nos	2.000 Nos  Rs 5416.22  th bolts,nuts,rubber insertions operately):  3.000 Nos  Rs 439.89  th bolts,nuts,rubber insertions operately):  5.000 Nos
	300 mm diameter. Class I" Data derived from item no.18.31.6.1 of DAR  Kerala Water Net Total Quantity Say 2.000 Nos @ Rs 2708.11 / Nos  100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality wire excluding the cost of air valve(the tail pieces if required will be paid segons of the paid segons	2.000 Nos  Rs 5416.22  th bolts,nuts,rubber insertions perately):  3.000 Nos  Rs 439.89  th bolts,nuts,rubber insertions perately):  5.000 Nos  Rs 1146.05

	Net Total Quantity	26.761 quintal
	Say 26.761 quintal @ Rs 603.91 / quintal	Rs 16161.24
18	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mecha 300 mm dia	nical jointing as per IS 13382:Upto
	Net Total Quantity	4.800 quintal
	Say 4.800 quintal @ Rs 14708.65 / quintal	Rs 70601.52
19	2.8.1 Earth work in excavation by mechanical means (Hydraulic excava trenches or drains (not exceeding 1.5 m in width or 10 sqm on plar ramming of bottoms, lift up to 1.5 m, including getting out the exca excavated soil as directed, within a lead of 50 m.All kinds of soil	n), including dressing of sides and
	Net Total Quantity	10.891 cum
	Say 10.891 cum @ Rs 309.95 / cum	Rs 3375.67
20	2.9.1 Excavation work by mechanical means (Hydraulic excavator) / manufolderins (not exceeding 1.5 m in width or 10 sqm on plan), including bottoms, lift up to 1.5 m, including getting out the excavated soil and as directed, within a lead of 50 m.Ordinary rock	dressing of sides and ramming of
	Net Total Quantity	10.891 cum
	Say 10.891 cum @ Rs 550.62 / cum	Rs 5996.80
21	4.1.6 Providing and laying in position cement concrete of specified grade eshuttering - All work up to plinth level:1:3:6 (1 cement: 3 coarse sand nominal size)	, -
	Net Total Quantity	1.453 cum
	Say 1.453 cum @ Rs 7527.06 / cum	Rs 10936.82
22	5.1.2 Providing and laying in position specified grade of reinforced ceme centering, shuttering, finishing and reinforcement - All work up to plinth sand :3 graded stone aggregate 20 mm nominal size	<u>-</u>
	Net Total Quantity	7.832 cum
	Say 7.832 cum @ Rs 9483.15 / cum	Rs 74272.03
23	5.22.2 Steel reinforcement for R.C.C work including straightening, cutting binding all complete upto plinth levelHard drawn steel wire	, bending, placing in position and
	Net Total Quantity	783.200 kilogram
	Say 783.200 kilogram @ Rs 105.23 / kilogram	Rs 82416.14

24	5.9.2 Centering and shuttering including strutting, etc. and removal of form	for:Walls (any thickness) including
	attached pilasters, butteresses, plinth and string courses etc.  Net Total Quantity	33 750 sam
	Say 33.750 sqm @ Rs 748.62 / sqm	Rs 25265.93
25	13.1.1	11.0 20200.30
25	12 mm cement plaster of mix:1:4 ( 1 cement : 4 fine sand)	
	Net Total Quantity	28.350 sam
		Rs 9294.55
26	Say 28.350 sqm @ Rs 327.85 / sqm 4.1.3	RS 9294.55
	Providing and laying in position cement concrete of specified grade eshuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)	•
	Net Total Quantity	10.000 cum
	Say 10.000 cum @ Rs 8340.93 / cum	Rs 83409.30
27	5.9.1 Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete	
	Net Total Quantity	40.000 sqm
	Say 40.000 sqm @ Rs 350.00 / sqm	Rs 14000.00
5 <b>Appe</b> r	dix A - (3) - Supply and Laying 250mm DI pumping main from Nariya	,
		x:41.53 %)
1	100.98.118 Supply of DLK9 Pipe Conforming to IS 9229/2000, 250mm Dia	
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 250mm Dia.	4400 000
	Net Total Quantity	
	Say 1188.000 metre @ Rs 3616.52 / metre	Rs 4296425.76
2	od41949/2020_2021	
	Supply DI specials,Tees,Bends,Collars,Tapers etc.	
	Net Total Quantity	7.450 quintal
	Say 7.450 quintal @ Rs 20384.00 / quintal	Rs 151860.80
3	100.98.461 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2 Size 200mm.	000, Sluice Valve with Cap PN 1.6
	Size zooniin.	
	Net Total Quantity	1.000 No
		4 000 No

4	400 00 400	
4	100.98.462	O Chrisa Valva with Can DN 1.6
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 200 Size 250mm.	o, Sidice valve with Cap Fiv 1.6
	Net Total Quantity 3.	000 No
	Say 3.000 No @ Rs 34361.80 / No	Rs 103085.40
5	100.98.440	
5	Supply of Cl Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Sm	nall Orifice Type S1, Size 25mm
	Net Total Quantity 3.	000 No
	Say 3.000 No @ Rs 5636.75 / No	Rs 16910.25
6 A nnon	ndix A - (3) - Supply and Laying 250mm DI pumping main from Nariyang	
oAppen	work re-arranging)- (b) Working charges (Cost Index:	•
1	100.1.1	
	Excavating trenches of required width for pipes, cables, etc includir	ng excavation for sockets, and
	dressing of sides, ramming of bottoms, depth up to 1.5 m, including get	tting out the excavated soil, an
	then returning the soil as required, in layers not exceeding 20 cm in de	pth, including consolidatingeac
	deposited layer by ramming, watering, etc. and disposing of surplus exc	cavated soil as directed, within
	lead of 50 m:	
	All kinds of soil	
	(Ref. Item No. 2.10.1 of DSR)	
	Net Total Quantity 94	43.651 cum
	Say 943.651 cum @ Rs 579.85 / cum	Rs 547176.03
2	100.1.5	
	Excavating trenches of required width for pipes, cables, etc includir	•
	dressing of sides, ramming of bottoms, depth up to 1.5 m, including ge	=
	then returning the soil as required, in layers not exceeding 20 cm in de	•
	deposited layer by ramming, watering, etc. and disposing of surplus exclead of 50 m:"	cavated soil as directed, within
	Ordinary Rock.	
	(Ref. Item No. 2.13.1 of DSR)	
	Net Total Quantity 18	38 730 cum
	Say 188.730 cum @ Rs 842.10 / cum	
	3av 100./ 30 Cuiii @ 1\3 042.10 / Guiii	Rs 158929.53
3	<u> </u>	Rs 158929.53
3	100.2.2	
3	100.2.2 Excavation work by mechanical means (Hydraulic excavator) / manual r	means in foundation trenches
3	100.2.2	means in foundation trenches essing of sides and ramming
3	100.2.2 Excavation work by mechanical means (Hydraulic excavator) / manual rdrains (not exceeding 1.5 m in width or 10 m2 on plan), including dreaters.	means in foundation trenches essing of sides and ramming
3	100.2.2 Excavation work by mechanical means (Hydraulic excavator) / manual rdrains (not exceeding 1.5 m in width or 10 m2 on plan), including drespottoms, lift up to 1.5 m, including getting out the excavated soil and dis	means in foundation trenches essing of sides and ramming
3	100.2.2 Excavation work by mechanical means (Hydraulic excavator) / manual r drains (not exceeding 1.5 m in width or 10 m2 on plan), including dre bottoms, lift up to 1.5 m, including getting out the excavated soil and dis as directed, within a lead of 50 m.	means in foundation trenches of essing of sides and ramming of
3	Excavation work by mechanical means (Hydraulic excavator) / manual rdrains (not exceeding 1.5 m in width or 10 m2 on plan), including drespottoms, lift up to 1.5 m, including getting out the excavated soil and disast directed, within a lead of 50 m.  Medium Rock (blasting prohibited)	means in foundation trenches dessing of sides and ramming deposal of surplus excavated soil

4	2.7.3	-t\/
	Earth work in excavation by mechanical means (Hydraulic excavation) (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on pla	· ·
	earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be leve	, .
	(blasting prohibited	
	Net Total Quantity	25.164 cum
	Say 25.164 cum @ Rs 1248.58 / cum	Rs 31419.27
5	100.4.1 Excavating in hard rock for trenches by blasting for laying pipes measurements and disposing unserviceable materials within the 1.50m(intial depth 0 m to 1.50m) and providing protection by earth fill avoid damages to nearby structures(200 Nos. of earth filled cement Ref. Item No. 1004 A of T C)	e intial lead of 50m and lift upto led cement bags during blasting to
	Net Total Quantity	25.164 cum
	Say 25.164 cum @ Rs 4093.40 / cum	Rs 103006.32
6	50.2.25.1 Filling with contractor's own earth (excluding rock) in trenches, plinth not exceeding 20 cm in depth, consolidating each deposited layer by 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	
	Net Total Quantity	10.000 cum
	Say 10.000 cum @ Rs 548.85 / cum	Rs 5488.50
7	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)	cm plastic caution tape in vertical
	Net Total Quantity	800.000 metre
	Say 800.000 metre @ Rs 28.82 / metre	Rs 23056.00
8	100.14.4 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Ir excluding cost of pipes and specials : 250 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.18 in DAR	on Pipes conforming to IS: 8329
	Net Total Quantity	1165.000 metre
	Say 1165.000 metre @ Rs 170.19 / metre	Rs 198271.35
9	18.70.4  Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Dijoints and including the cost of rubber gasket:250 mm dia pipes	uctile Iron Pipes including testing of
	Net Total Quantity	230.000 joint
	Say 230.000 joint @ Rs 329.84 / joint	,
	Jay 250.000 joint @ 113 523.04 / joint	13 / 3003.20

10	18.30.6 Providing flanged joints to double flanged C.I./ D.I pipes and specials, diameter pipe	including testing of joints:250 mn
	Net Total Quantity	25.000 Nos
	Say 25.000 Nos @ Rs 595.56 / Nos	Rs 14889.00
11	18.83.6 Labour for cutting C.I. pipe with steel saw.250 mm diameter C.I. pipe	
	Net Total Quantity	15.000 Each Cut
	Say 15.000 Each Cut @ Rs 559.11 / Each Cut	Rs 8386.65
12	100.35.4 Testing 250mm DI/CI pipeline with potable water to the required test pr 250 mm dia Observed Data derived from item no.1022 of PHED DATA	essure .
	Net Total Quantity	1165.000 metre
	Say 1165.000 metre @ Rs 52.99 / metre	Rs 61733.35
13	100.31.1.5  "Conveying and fixing C.I. sluice valves (with cap) by providing convertions etc. excluding the cost of valve (the tail pieces if requied 200 mm diameter. Class I"  Data derived from item no.18.31.4.1 of DAR	•
	Kerala Water Net total Quantity	1.000 Nos
	Say 1.000 Nos @ Rs 1625.90 / Nos	Rs 1625.90
14	100.31.1.6  "Conveying and fixing C.I. sluice valves (with cap) by providing conversions etc. excluding the cost of valve (the tail pieces if requies 250 mm diameter. Class I"  Data derived from item no.18.31.5.1 of DAR	·
	Net Total Quantity	3.000 Nos
	Say 3.000 Nos @ Rs 2304.82 / Nos	Rs 6914.46
15	100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality we excluding the cost of air valve(the tail pieces if required will be paid see 25 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR	
	Net Total Quantity	3.000 Nos
	Say 3.000 Nos @ Rs 146.63 / Nos	Rs 439.89
16	18.24 Laying in position S & S or flanged C.I. special such as tees, bence excluding cost of specials).	ds, collars, tapers and caps etc.

	Net Total Quantity	7.450 guintal
	Say 7.450 quintal @ Rs 603.91 / quintal	Rs 4499.13
17	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechan 300 mm dia	nical jointing as per IS 13382:Up
	Net Total Quantity	1.440 quintal
	Say 1.440 quintal @ Rs 14708.65 / quintal	Rs 21180.46
18	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavat trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan ramming of bottoms, lift up to 1.5 m, including getting out the excave excavated soil as directed, within a lead of 50 m.All kinds of soil	), including dressing of sides a
	Net Total Quantity	10.891 cum
	Say 10.891 cum @ Rs 309.95 / cum	Rs 3375.67
19	2.9.1 Excavation work by mechanical means (Hydraulic excavator) / manuadrains (not exceeding 1.5 m in width or 10 sqm on plan), including of the control of	dressing of sides and ramming
	bottoms, lift up to 1.5 m, including getting out the excavated soil and cast directed, within a lead of 50 m.Ordinary rock	
	as directed, within a lead of 50 m.Ordinary rock  Net Total Quantity	10.891 cum
20	as directed, within a lead of 50 m.Ordinary rock	10.891 cum  Rs 5996.80  xcluding the cost of centering a
20	as directed, within a lead of 50 m.Ordinary rock  Net Total Quantity  Say 10.891 cum @ Rs 550.62 / cum  4.1.6  Providing and laying in position cement concrete of specified grade e shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand	Rs 5996.80  xcluding the cost of centering at 6 graded stone aggregate 40 r
20	as directed, within a lead of 50 m.Ordinary rock  Net Total Quantity  Say 10.891 cum @ Rs 550.62 / cum  4.1.6  Providing and laying in position cement concrete of specified grade e shuttering - All work up to plinth level:1:3:6 (1 cement: 3 coarse sand nominal size)	Rs 5996.80  xcluding the cost of centering at 6 graded stone aggregate 40 n
20	A.1.6 Providing and laying in position cement concrete of specified grade e shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand nominal size)  Net Total Quantity  Net Total Quantity	Rs 5996.80  xcluding the cost of centering at 6 graded stone aggregate 40 m  1.453 cum  Rs 10936.82  nt concrete, excluding the cost
	as directed, within a lead of 50 m.Ordinary rock  Net Total Quantity  Say 10.891 cum @ Rs 550.62 / cum  4.1.6  Providing and laying in position cement concrete of specified grade e shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand nominal size)  Net Total Quantity  Say 1.453 cum @ Rs 7527.06 / cum  5.1.2  Providing and laying in position specified grade of reinforced cemer centering, shuttering, finishing and reinforcement - All work up to plinth	Rs 5996.80  xcluding the cost of centering at 6 graded stone aggregate 40 m  1.453 cum  Rs 10936.82  at concrete, excluding the cost level:1:1:5:3 (1 cement 1.5 coal
	A.1.6 Providing and laying in position cement concrete of specified grade e shuttering - All work up to plinth level:1:3:6 (1 cement: 3 coarse sand nominal size)  Net Total Quantity  Say 1.453 cum @ Rs 7527.06 / cum  5.1.2 Providing and laying in position specified grade of reinforced cement centering, shuttering, finishing and reinforcement - All work up to plinth sand:3 graded stone aggregate 20 mm nominal size	Rs 5996.80  xcluding the cost of centering at 6 graded stone aggregate 40 m  1.453 cum  Rs 10936.82  at concrete, excluding the cost level:1:1:5:3 (1 cement 1.5 coal
	Al.6 Providing and laying in position cement concrete of specified grade e shuttering - All work up to plinth level:1:3:6 (1 cement: 3 coarse sand nominal size)  Net Total Quantity  Say 1.453 cum @ Rs 7527.06 / cum  5.1.2 Providing and laying in position specified grade of reinforced cemer centering, shuttering, finishing and reinforcement - All work up to plinth sand:3 graded stone aggregate 20 mm nominal size  Net Total Quantity	Rs 5996.80  xcluding the cost of centering at 6 graded stone aggregate 40 m  1.453 cum  Rs 10936.82  nt concrete, excluding the cost level:1:1:5:3 (1 cement 1.5 coat 7.832 cum  Rs 74272.03
21	At 1.6  Providing and laying in position cement concrete of specified grade e shuttering - All work up to plinth level:1:3:6 (1 cement: 3 coarse sand nominal size)  Net Total Quantity  Say 1.453 cum @ Rs 7527.06 / cum  5.1.2  Providing and laying in position specified grade of reinforced cemer centering, shuttering, finishing and reinforcement - All work up to plinth sand:3 graded stone aggregate 20 mm nominal size  Net Total Quantity  Say 7.832 cum @ Rs 9483.15 / cum  5.9.2  Centering and shuttering including strutting, etc. and removal of form	Rs 5996.80  xcluding the cost of centering at 6 graded stone aggregate 40 m  1.453 cum  Rs 10936.82  nt concrete, excluding the cost level:1:1:5:3 (1 cement 1.5 coat 7.832 cum  Rs 74272.03  for:Walls (any thickness) including the cost includ

22	5 22 2	
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	, bollang, placing in pooliton and
	Net Total Quantity	783.200 kilogram
	Say 783.200 kilogram @ Rs 105.23 / kilogram	Rs 82416.14
24	13.1.1	
	12 mm cement plaster of mix:1:4 ( 1 cement : 4 fine sand)	
	Net Total Quantity	28.350 sqm
	Say 28.350 sqm @ Rs 327.85 / sqm	Rs 9294.55
25	4.1.3	
	Providing and laying in position cement concrete of specified grade e	excluding the cost of centering an
	shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand	•
	nominal size)	
	Net Total Quantity	5.000 cum
	Say 5.000 cum @ Rs 8340.93 / cum	Rs 41704.65
26	5.9.1	
	Centering and shuttering including strutting, etc. and removal of form	for:Foundations, footings, bases of
	columns, etc for mass concrete	g.,
	Net Total Quantity	20.000 sqm
	Say 20.000 sqm @ Rs 350.00 / sqm	Rs 7000.00
7App	pendix B - (1) - Improvements at Kalthotty sump- (a) patch work, pair	nting and providing toilet etc.
	(Cost Index:41.53 %)	<b>4</b>
1	2.31	
	Clearing jungle including uprooting of rank vegetation, grass, brush w	
	to 30 cm measured at a height of 1 m above ground level and removem outside the periphery of the area cleared	al of rubbish up to a distance of 5
	Net Total Quantity	40 000 sam
	Say 40.000 sqm @ Rs 15.43 / sqm	Rs 617.20
		KS 017.20
2	2.8.1	tor) /manual massa in faundatia
	Earth work in excavation by mechanical means (Hydraulic excava trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan	
	ramming of bottoms, lift up to 1.5 m, including getting out the exca	
	excavated soil as directed, within a lead of 50 m.All kinds of soil	and
	Net Total Quantity	41.012 cum
	Say 41.012 cum @ Rs 309.95 / cum	Rs 12711.67
	21, 1 11 2 11 20000 4000	

3	15.7.4  Demolishing brick work manually / by mechanical means including stadisposal of unserviceable material within 50 metres lead as per dicement mortar	<u>₹</u>
	Net Total Quantity	0.500 cum
	Say 0.500 cum @ Rs 1805.99 / cum	Rs 903.00
4	15.2.1  Demolishing cement concrete manually / by mechanical means included metres lead as per direction of Engineer - in-Charge.Nominal concrete design mix)	• ,
	Net Total Quantity	0.225 cum
	Say 0.225 cum @ Rs 2134.72 / cum	Rs 480.31
5	7.1.1  Random rubble masonry with hard stone in foundation and plinth in concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate level with:Cement mortar 1:6 (1 cement : 6 coarse sand)	• •
	Net Total Quantity	5.539 cum
	Say 5.539 cum @ Rs 7520.41 / cum	Rs 41655.55
6	4.1.5 Providing and laying in position cement concrete of specified grade exshuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : nominal size)  Net Total Quantity	xcluding the cost of centering an 6 graded stone aggregate 20 m
6	4.1.5  Providing and laying in position cement concrete of specified grade exshuttering - All work up to plinth level:1:3;6 (1 cement : 3 coarse sand : nominal size)	xcluding the cost of centering an 6 graded stone aggregate 20 m
7	4.1.5 Providing and laying in position cement concrete of specified grade exshuttering - All work up to plinth level;1:3;6 (1 cement : 3 coarse sand : nominal size)  Net Total Quantity	xcluding the cost of centering at 6 graded stone aggregate 20 m  2.192 cum  Rs 16857.18  40x20x20cm or nearest available floor two level up to floor V level
	4.1.5  Providing and laying in position cement concrete of specified grade exshuttering - All work up to plinth level;1:3:6 (1 cement : 3 coarse sand : nominal size)  Net Total Quantity:  Say 2.192 cum @ Rs 7690.32 / cum  50.6.1.3  Solid block masonry using pre cast solid blocks (Factory made) of size size confirming to IS 2185 Part I of 1979 for super structure above	xcluding the cost of centering at 6 graded stone aggregate 20 m  2.192 cum  Rs 16857.18  40x20x20cm or nearest available floor two level up to floor V level complete
	4.1.5  Providing and laying in position cement concrete of specified grade exshuttering - All work up to plinth level;1:3:6 (1 cement; 3 coarse sand: nominal size)  Net Total Quantity:  Say 2.192 cum @ Rs 7690.32 / cum  50.6.1.3  Solid block masonry using pre cast solid blocks (Factory made) of size size confirming to IS 2185 Part I of 1979 for super structure above thickness 20cm and above in: CM 1:6 (1 cement:6 coarse sand) experience.	contact contac
	4.1.5  Providing and laying in position cement concrete of specified grade exshuttering - All work up to plinth level;1:3:6 (1 cement; 3 coarse sand: nominal size)  Net Total Quantity:  Say 2.192 cum @ Rs 7690.32 / cum  50.6.1.3  Solid block masonry using pre cast solid blocks (Factory made) of size size confirming to IS 2185 Part I of 1979 for super structure above thickness 20cm and above in: CM 1:6 (1 cement:6 coarse sand) experiences.	Rs 16857.18  2.192 cum  Rs 16857.18  2.40x20x20cm or nearest available floor two level up to floor V level to complete  4.739 cum  Rs 36891.84  x6 mm angle iron and 3 mm M. olete, including applying a priminal content of the conten
7	4.1.5  Providing and laying in position cement concrete of specified grade exshuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : nominal size)  Net Total Quantity  Say 2.192 cum @ Rs 7690.32 / cum  50.6.1.3  Solid block masonry using pre cast solid blocks (Factory made) of size size confirming to IS 2185 Part I of 1979 for super structure above thickness 20cm and above in: CM 1:6 (1 cement :6 coarse sand) experiments and above in: CM 1:6 (1 cement :6 coarse sand) experiments and guantity and fixing 1 mm thick M.S. sheet door with frame of 40x40 gusset plates at the junctions and corners, all necessary fittings compared to the short of the same of	Rs 16857.18  2.192 cum  Rs 16857.18  2.40x20x20cm or nearest available floor two level up to floor V level to complete  4.739 cum  Rs 36891.84  x6 mm angle iron and 3 mm M. olete, including applying a priming and central cross piece

	540	
9	5.1.3 Providing and laying in position specified grade of reinforced ceme	nt concrete evaluding the cost
	centering, shuttering, finishing and reinforcement - All work up to plint	
	sand : 4 graded stone aggregate 20 mm nominal size)	
	Net Total Quantity	0.814 cum
	Say 0.814 cum @ Rs 8964.72 / cum	Rs 7297.28
10	5.2.2 Reinforced cement concrete work in walls (any thickness), including a and string courses, fillets, columns, pillars, piers, abutments, posts a excluding cost of centering, shuttering, finishing and reinforcement :1: 3 graded stone aggregate 20 mm nominal size)	nd struts etc. up tot floor five le
	Net Total Quantity	4.657 cum
	Say 4.657 cum @ Rs 11433.93 / cum	Rs 53247.81
11	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting binding all complete upto plinth levelThermo - Mechanically Treate	
	Net Total Quantity	601.811 kilogram
	Say 601.811 kilogram @ Rs 102.61 / kilogram	Rs 61751.83
12	5.9.1 Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete rala Water Authority	for:Foundations, footings, bases
	Net Total Quantity	8.000 sqm
	Say 8.000 sqm @ Rs 350.00 / sqm	Rs 2800.00
13	5.9.3	
13	Centering and shuttering including strutting, etc. and removal of landings, balconies and access platform	form for:Suspended floors, roo
	Net Total Quantity	29.311 sqm
	Say 29.311 sqm @ Rs 851.52 / sqm	Rs 24958.90
14	5.9.5 Centering and shuttering including strutting, etc. and removal of form girders bressumers and cantilevers	n for:Lintels, beams, plinth bear
	Net Total Quantity	17.740 sqm
	Say 17.740 sqm @ Rs 678.28 / sqm	Rs 12032.69
15	5.9.6	
10	Centering and shuttering including strutting, etc. and removal of Abutments, Posts and Struts	form for:Columns, Pillars, Pie
	Net Total Quantity	9.000 sqm
	Say 9.000 sqm @ Rs 901.48 / sqm	Rs 8113.32
	2 22 1 = 2 22 32 24	<u> </u>

16	13.7.1	
	12 mm cement plaster finished with a floating coat of neat cement of m	ix:1:3 ( 1 cement : 3 fine sand)
	Net Total Quantity	14.081 sqm
	Say 14.081 sqm @ Rs 418.79 / sqm	Rs 5896.98
17	13.2.1	
	15 mm cement plaster on the rough side of single or half brick wall of n	nix:1:4 (1 cement :4 fine sand)
	Net Total Quantity	68.840 sqm
	Say 68.840 sqm @ Rs 378.31 / sqm	Rs 26042.86
18	13.44.1 Finishing walls with water proofing cement paint of required shade:New @ 3.84 kg/10 sqm)	w work (Two or more coats applied
	Net Total Quantity	328.177 sqm
	Say 328.177 sqm @ Rs 112.09 / sqm	Rs 36785.36
19	13.48.3 Finishing with Deluxe Multi surface paint system for interiors ar manufacturers specifications:Painting Steel work with Deluxe Multi St. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of p approved brand and manufacture	ırface Paint to give an even shade
	Net Total Quantity	0.641 sqm
	Net Total Quantity Say 0.641 sqm @ Rs 154.62 / sqm	0.641 sqm <b>Rs 99.11</b>
20	<b>新政治 第40</b>	Rs 99.11  proved make and colour using acid or alkali resisting cement as per IS
20	Say 0.641 sqm @ Rs 154.62 / sqm  11.21.1.1  Providing and fixing 10 mm thick acid and /or alkali resistant tiles of ap and / or alkali resisting mortar bedding, and joints filled with acid and /or 4457, complete as per the direction of Engineer-in-Charge.In flooring or	Rs 99.11  proved make and colour using acid or alkali resisting cement as per IS on a bed of 10 mm thick mortar 1:4
20	Say 0.641 sqm @ Rs 154.62 / sqm  11.21.1.1  Providing and fixing 10 mm thick acid and /or alkali resistant tiles of ap and / or alkali resisting mortar bedding, and joints filled with acid and /or 4457, complete as per the direction of Engineer-in-Charge.In flooring of (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile	Rs 99.11  proved make and colour using acid or alkali resisting cement as per IS on a bed of 10 mm thick mortar 1:4
20	Say 0.641 sqm @ Rs 154.62 / sqm  11.21.1.1  Providing and fixing 10 mm thick acid and /or alkali resistant tiles of ap and / or alkali resisting mortar bedding, and joints filled with acid and /or 4457, complete as per the direction of Engineer-in-Charge.In flooring of (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile  Net Total Quantity	Rs 99.11  proved make and colour using acid or alkali resisting cement as per IS on a bed of 10 mm thick mortar 1:4  3.750 sqm  Rs 6888.19  proved make and colour using acid or alkali resisting cement as per IS
	Say 0.641 sqm @ Rs 154.62 / sqm  11.21.1.1  Providing and fixing 10 mm thick acid and /or alkali resistant tiles of ap and / or alkali resisting mortar bedding, and joints filled with acid and /o 4457, complete as per the direction of Engineer-in-Charge.In flooring (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile  Net Total Quantity  Say 3.750 sqm @ Rs 1836.85 / sqm  11.21.2.1  Providing and fixing 10 mm thick acid and /or alkali resistant tiles of ap and / or alkali resisting mortar bedding, and joints filled with acid and /o 4457, complete as per the direction of Engineer-in-Charge.In dado/ sk	Rs 99.11  proved make and colour using acid or alkali resisting cement as per IS on a bed of 10 mm thick mortar 1:4  3.750 sqm  Rs 6888.19  proved make and colour using acid or alkali resisting cement as per IS irting on 12 mm thick mortar 1:4 (1)
	Say 0.641 sqm @ Rs 154.62 / sqm  11.21.1.1  Providing and fixing 10 mm thick acid and /or alkali resistant tiles of ap and / or alkali resisting mortar bedding, and joints filled with acid and /o 4457, complete as per the direction of Engineer-in-Charge.In flooring (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile  Net Total Quantity  Say 3.750 sqm @ Rs 1836.85 / sqm  11.21.2.1  Providing and fixing 10 mm thick acid and /or alkali resistant tiles of ap and / or alkali resisting mortar bedding, and joints filled with acid and /o 4457, complete as per the direction of Engineer-in-Charge.In dado/ sk acid proof cement : 4 coarse sand)Acid and alkali resistant tile	Rs 99.11  proved make and colour using acid or alkali resisting cement as per IS on a bed of 10 mm thick mortar 1:4  3.750 sqm  Rs 6888.19  proved make and colour using acid or alkali resisting cement as per IS irting on 12 mm thick mortar 1:4 (1)
	Say 0.641 sqm @ Rs 154.62 / sqm  11.21.1.1  Providing and fixing 10 mm thick acid and /or alkali resistant tiles of ap and / or alkali resisting mortar bedding, and joints filled with acid and /or 4457, complete as per the direction of Engineer-in-Charge.In flooring of (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile  Net Total Quantity  Say 3.750 sqm @ Rs 1836.85 / sqm  11.21.2.1  Providing and fixing 10 mm thick acid and /or alkali resistant tiles of ap and / or alkali resisting mortar bedding, and joints filled with acid and /or 4457, complete as per the direction of Engineer-in-Charge.In dado/ sk acid proof cement : 4 coarse sand)Acid and alkali resistant tile  Net Total Quantity	Rs 99.11  proved make and colour using acid or alkali resisting cement as per IS on a bed of 10 mm thick mortar 1:4  3.750 sqm  Rs 6888.19  proved make and colour using acid or alkali resisting cement as per IS irting on 12 mm thick mortar 1:4 (1)  18.240 sqm
21	11.21.1.1 Providing and fixing 10 mm thick acid and /or alkali resistant tiles of ap and / or alkali resisting mortar bedding, and joints filled with acid and /o 4457, complete as per the direction of Engineer-in-Charge.In flooring (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile  Net Total Quantity  Say 3.750 sqm @ Rs 1836.85 / sqm  11.21.2.1 Providing and fixing 10 mm thick acid and /or alkali resistant tiles of ap and / or alkali resisting mortar bedding, and joints filled with acid and /o 4457, complete as per the direction of Engineer-in-Charge.In dado/ sk acid proof cement : 4 coarse sand)Acid and alkali resistant tile  Net Total Quantity  Say 18.240 sqm @ Rs 1975.33 / sqm  13.71 Lettering with black Japan pint of approved brand and manufacture	Rs 99.11  proved make and colour using acid or alkali resisting cement as per IS on a bed of 10 mm thick mortar 1:4  3.750 sqm  Rs 6888.19  proved make and colour using acid or alkali resisting cement as per IS irting on 12 mm thick mortar 1:4 (1)  18.240 sqm

00	50.40.4	
23	50.10.1 Steel work in built up G I tubular ( round, square or rectangular hollow	v tubes etc.) trusses etc. including
	cutting, hoisting, fixing in position and applying a priming coat of appro	,
	and bolted with special shaped washers etc. complete	
	Net Total Quantity	152.460 kg
	Say 152.460 kg @ Rs 198.21 / kg	Rs 30219.10
24	13.48.2 Finishing with Deluxe Multi surface paint system for interiors ar manufacturers specifications:Painting wood work with Deluxe Multi Su or more coat applied @ 0.90 ltr/10 sqm over an under coat of prir approved brand and manufacture	rface Paint of required shade. Two
	Net Total Quantity	7.968 sqm
	Say 7.968 sqm @ Rs 160.00 / sqm	Rs 1274.88
25	14.75	
	Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 s patch in proper shape, raking out joints and preparing plasteringthe was polymer modified self curing mortar, including disposal of rubbish, a Engineer-In-Charge.	all surface with white cement based
	Net Total Quantity	50.000 sqm
	Say 50.000 sqm @ Rs 629.03 / sqm	Rs 31451.50
26	od41173/2020_2021 Kerala Water Authority Providing sanitary facilities including 500 ltr water tank,PVC septic other plumbing works and electrical works etc.complete.  Net Total Quantity	
	Say 1.000 No @ Rs 46398.41 / No	Rs 46398.41
BApper	ndix B - (1) - Improvements at Kalthotty sump- (b) Construction of ref (Cost Index:41.53 %)	
1	2.31	
	Clearing jungle including uprooting of rank vegetation, grass, brush w to 30 cm measured at a height of 1 m above ground level and remove m outside the periphery of the area cleared	, , ,
	Net Total Quantity	330.000 sqm
	Say 330.000 sqm @ Rs 15.43 / sqm	Rs 5091.90
2	2.8.1	
_	Earth work in excavation by mechanical means (Hydraulic excavation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan ramming of bottoms, lift up to 1.5 m, including getting out the excavex excavated soil as directed, within a lead of 50 m.All kinds of soil	), including dressing of sides and
	Net Total Quantity	70.620 cum
	The same statements	

	Say 70.620 cum @ Rs 309.95 / cum	Rs 21888.67
3	4.1.5 Providing and laying in position cement concrete of specified grade exclushuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 on nominal size)	•
	Net Total Quantity 11.	881 cum
	Say 11.881 cum @ Rs 7690.32 / cum	Rs 91368.69
4	7.1.1  Random rubble masonry with hard stone in foundation and plinth incluce concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 level with:Cement mortar 1:6 (1 cement : 6 coarse sand)	0 mm nominal size) up to plii
	Net Total Quantity 93.	
	Say 93.283 cum @ Rs 7520.41 / cum	Rs 701526.41
	Reinforced cement concrete work in walls (any thickness), including attact and string courses, fillets, columns, pillars, piers, abutments, posts and excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:	struts etc. up tot floor five le
	3 graded stone aggregate 20 mm nominal size)	
	Net Total Quantity 6.6	02 cum
		02 cum Rs <b>75486.81</b>
6	Net Total Quantity 6.6	Rs 75486.81
6	Say 6.602 cum @ Rs 11433.93 / cum  5.22.6 Kerala Water Authority  Steel reinforcement for R.C.C work including straightening, cutting, be	Rs 75486.81 ending, placing in position a ars of grade Fe-500D or me
6	Say 6.602 cum @ Rs 11433.93 / cum  5.22.6  Kerala Water Authority  Steel reinforcement for R.C.C work including straightening, cutting, be binding all complete upto plinth levelThermo - Mechanically Treated by	Rs 75486.81 ending, placing in position a ars of grade Fe-500D or me
7	Say 6.602 cum @ Rs 11433.93 / cum  5.22.6  Kerala Water Authority  Steel reinforcement for R.C.C work including straightening, cutting, be binding all complete upto plinth levelThermo - Mechanically Treated by Net Total Quantity 396	Rs 75486.81  Ending, placing in position a ars of grade Fe-500D or most a second secon
	Say 6.602 cum @ Rs 11433.93 / cum  5.22.6  Steel reinforcement for R.C.C work including straightening, cutting, be binding all complete upto plinth levelThermo - Mechanically Treated by Net Total Quantity  Say 396.002 kilogram @ Rs 102.61 / kilogram  50.2.25.1  Filling with contractor's own earth ( excluding rock) in trenches, plinth, side not exceeding 20 cm in depth, consolidating each deposited layer by range.	Rs 75486.81  Ending, placing in position a cars of grade Fe-500D or most a compared by the com
	Say 6.602 cum @ Rs 11433.93 / cum  5.22.6  Steel reinforcement for R.C.C work including straightening, cutting, be binding all complete upto plinth levelThermo - Mechanically Treated by Net Total Quantity  Say 396.002 kilogram @ Rs 102.61 / kilogram  50.2.25.1  Filling with contractor's own earth ( excluding rock) in trenches, plinth, side not exceeding 20 cm in depth, consolidating each deposited layer by range 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	Rs 75486.81  Ending, placing in position a ars of grade Fe-500D or most 5.002 kilogram  Rs 40633.77  Les of foundations etc. in layon ming and watering, lead up
	Say 6.602 cum @ Rs 11433.93 / cum  5.22.6  Steel reinforcement for R.C.C work including straightening, cutting, be binding all complete upto plinth levelThermo - Mechanically Treated by Net Total Quantity 396  Say 396.002 kilogram @ Rs 102.61 / kilogram  50.2.25.1  Filling with contractor's own earth ( excluding rock) in trenches, plinth, side not exceeding 20 cm in depth, consolidating each deposited layer by rand 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge  Net Total Quantity 66.	Rs 75486.81  Ending, placing in position as ars of grade Fe-500D or most according to the second sec
7	Net Total Quantity 6.6  Say 6.602 cum @ Rs 11433.93 / cum  5.22.6  Steel reinforcement for R.C.C work including straightening, cutting, be binding all complete upto plinth levelThermo - Mechanically Treated by Net Total Quantity 396  Say 396.002 kilogram @ Rs 102.61 / kilogram  50.2.25.1  Filling with contractor's own earth ( excluding rock) in trenches, plinth, side not exceeding 20 cm in depth, consolidating each deposited layer by rand 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge  Net Total Quantity 66.  Say 66.000 cum @ Rs 548.85 / cum  50.6.1.3  Solid block masonry using pre cast solid blocks (Factory made) of size 40 size confirming to IS 2185 Part I of 1979 for super structure above floor	Rs 75486.81  Ending, placing in position a ars of grade Fe-500D or most according to the second state of grade and second state of grade and second state of grade Fe-500D or most according to the second se

	<ul><li>13.7.2</li><li>12 mm cement plaster finished with a floating coat of neat cement of mix</li></ul>	x:1:4 ( 1 cement : 4 fine sand)
	Net Total Quantity 2	
	Say 206.400 sqm @ Rs 403.29 / sqm	Rs 83239.06
10	50.10.1 Steel work in built up G I tubular ( round, square or rectangular hollow cutting, hoisting,fixing in position and applying a priming coat of approvand bolted with special shaped washers etc. complete	,
	Net Total Quantity	31.621 kg
	Say 61.621 kg @ Rs 198.21 / kg	Rs 12213.90
9Арр	pendix B - (2) - Design and Construction of Pipeline Bridge across katt (Cost Index:41.53 %)	appana river- (a)- RCC work
1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wo to 30 cm measured at a height of 1 m above ground level and remova m outside the periphery of the area cleared	, , ,
	Net Total Quantity	35.000 sqm
	Say 85.000 sqm @ Rs 15.43 / sqm	Rs 1311.55
	12.8.1	
2	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) ramming of bottoms, lift up to 1.5 m, including getting out the excavexavated soil as directed, within a lead of 50 m.All kinds of soil	, including dressing of sides a
	Earth work in excavation by mechanical means (Hydraulic excavator trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) ramming of bottoms, lift up to 1.5 m, including getting out the excav	, including dressing of sides a ated soil and disposal of surp
2	Earth work in excavation by mechanical means (Hydraulic excavator trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) ramming of bottoms, lift up to 1.5 m, including getting out the excavexavated soil as directed, within a lead of 50 m.All kinds of soil	, including dressing of sides a ated soil and disposal of surp
3	Earth work in excavation by mechanical means (Hydraulic excavator trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) ramming of bottoms, lift up to 1.5 m, including getting out the excavexcavated soil as directed, within a lead of 50 m.All kinds of soil  Net Total Quantity 2	, including dressing of sides a ated soil and disposal of surp 23.520 cum  Rs 7290.02
	Earth work in excavation by mechanical means (Hydraulic excavator trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) ramming of bottoms, lift up to 1.5 m, including getting out the excave excavated soil as directed, within a lead of 50 m.All kinds of soil  Net Total Quantity  Say 23.520 cum @ Rs 309.95 / cum  4.1.5  Providing and laying in position cement concrete of specified grade exshuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand :	, including dressing of sides a ated soil and disposal of surp 23.520 cum  Rs 7290.02  Accluding the cost of centering a 6 graded stone aggregate 20 m
	Earth work in excavation by mechanical means (Hydraulic excavator trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) ramming of bottoms, lift up to 1.5 m, including getting out the excave excavated soil as directed, within a lead of 50 m.All kinds of soil  Net Total Quantity  Say 23.520 cum @ Rs 309.95 / cum  4.1.5  Providing and laying in position cement concrete of specified grade exshuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : nominal size)	, including dressing of sides a ated soil and disposal of surple 23.520 cum  Rs 7290.02  Accluding the cost of centering a 6 graded stone aggregate 20 m

	Net Total Quantity	6.032 cum
	Say 6.032 cum @ Rs 9825.93 / cum	Rs 59270.01
5	5.33.2  Providing and laying in position machine batched and machine mix concrete for reinforced cement concrete work, using cement con including pumping of concrete to site of laying but excluding the cost and reinforcement, including admixtures in recommended proporti retard setting of concrete, improve workability without impairing streng Engineer - in-charge. Note:- Cement content considered in this item cement used as per design mix is payable or recoverable separately.	tent as per approved design nest of centering, shuttering, finishons as per IS: 9103 to accelerate the and durability as per direction is @ 330 kg/ cum. Excess or less than the access of the access
	V level  Net Total Quantity	14.280 cum
	Say 14.280 cum @ Rs 11550.40 / cum	
6	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less content used is payable/ recoverable separately.Providing M-30 gra BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg	de concrete instead of M-25 gra
	Net Total Quantity	20.300 cum
	Say 20.300 cum @ Rs 85.70 / cum	Rs 1739.71
7	5.22.1 Steel reinforcement for R.C.C work including straightening, cutting binding all complete upto plinth levelMild steel and Medium Tensil Net Total Quantity	e steel bars
7	Steel reinforcement for R.C.C work including straightening, cutting	e steel bars 2174.000 kg
8	Steel reinforcement for R.C.C work including straightening, cutting binding all complete upto plinth levelMild steel and Medium Tensil  Net Total Quantity	e steel bars 2174.000 kg Rs 219378.34
	Steel reinforcement for R.C.C work including straightening, cutting binding all complete upto plinth levelMild steel and Medium Tensil Net Total Quantity  Say 2174.000 kg @ Rs 100.91 / kg  5.9.1  Centering and shuttering including strutting, etc. and removal of form	e steel bars 2174.000 kg  Rs 219378.34  for:Foundations, footings, base
	Steel reinforcement for R.C.C work including straightening, cutting binding all complete upto plinth levelMild steel and Medium Tensil Net Total Quantity  Say 2174.000 kg @ Rs 100.91 / kg  5.9.1  Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete	e steel bars 2174.000 kg  Rs 219378.34  for:Foundations, footings, bases 21.440 sqm
	Steel reinforcement for R.C.C work including straightening, cutting binding all complete upto plinth levelMild steel and Medium Tensil Net Total Quantity  Say 2174.000 kg @ Rs 100.91 / kg  5.9.1  Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete  Net Total Quantity	e steel bars 2174.000 kg  Rs 219378.34  for:Foundations, footings, bases 21.440 sqm  Rs 7504.00
8	Steel reinforcement for R.C.C work including straightening, cutting binding all complete upto plinth levelMild steel and Medium Tensil Net Total Quantity  Say 2174.000 kg @ Rs 100.91 / kg  5.9.1  Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete  Net Total Quantity  Say 21.440 sqm @ Rs 350.00 / sqm  5.9.3  Centering and shuttering including strutting, etc. and removal of	e steel bars  2174.000 kg  Rs 219378.34  for:Foundations, footings, bases  21.440 sqm  Rs 7504.00  form for:Suspended floors, ro
8	Steel reinforcement for R.C.C work including straightening, cutting binding all complete upto plinth levelMild steel and Medium Tensil Net Total Quantity  Say 2174.000 kg @ Rs 100.91 / kg  5.9.1  Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete  Net Total Quantity  Say 21.440 sqm @ Rs 350.00 / sqm  5.9.3  Centering and shuttering including strutting, etc. and removal of landings, balconies and access platform	e steel bars  2174.000 kg  Rs 219378.34  for:Foundations, footings, bases  21.440 sqm  Rs 7504.00  form for:Suspended floors, ro
8	Steel reinforcement for R.C.C work including straightening, cutting binding all complete upto plinth levelMild steel and Medium Tensil  Net Total Quantity  Say 2174.000 kg @ Rs 100.91 / kg  5.9.1  Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete  Net Total Quantity  Say 21.440 sqm @ Rs 350.00 / sqm  5.9.3  Centering and shuttering including strutting, etc. and removal of landings, balconies and access platform  Net Total Quantity	e steel bars  2174.000 kg  Rs 219378.34  for:Foundations, footings, bases  21.440 sqm  Rs 7504.00  form for:Suspended floors, ro  26.000 sqm  Rs 22139.52

	Say 44.481 sqm @ Rs 678.28 / sqm	Rs 30170.57
11	5.9.6 Centering and shuttering including strutting, etc. and removal of Abutments, Posts and Struts	form for:Columns, Pillars, Pie
	Net Total Quantity	62.400 sqm
	Say 62.400 sqm @ Rs 901.48 / sqm	Rs 56252.35
12	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of m	nix:1:3 ( 1 cement : 3 fine sand)
	Net Total Quantity	147.840 sqm
	Say 147.840 sqm @ Rs 418.79 / sqm	Rs 61913.91
13	13.44.1 Finishing walls with water proofing cement paint of required shade:Ne @ 3.84 kg/10 sqm)	w work (Two or more coats appl
	Net Total Quantity	156.560 sqm
	Say 156.560 sqm @ Rs 112.09 / sqm	Rs 17548.81
14	10.26.3 Providing and fixing hand rail of approved size by welding etc. to s staircase railing and similar works, including applying priming coat of the coat of t	of approves steel primer.G.I. pip
	Kera Say 452.600 kg @ Rs 194.18 / kg	
15	100.7.1 Bailing out water with 5 HP engine and pumpset including conveyance and taking back of engine and pump, cost of fuel lubricating oil a complete.  NEW DATA (Prepared based on PHED SDB - Item No.1070	
	Net Total Quantity	894.840 Kwh
	Say 894.840 Kwh @ Rs 38.57 / Kwh	Rs 34513.98
10App	endix B - (2) - Design and Construction of pipeline bridge across ka (Cost Index:41.53 %)	
1	10.2 Structural steel work riveted, bolted or welded in built up sections, to cutting, hoisting, fixing in position and applying a priming coat of applying coat of applying coat of applying coat of applying coa	
	Net Total Quantity	4019.050 kg
	Say 4019.050 kg @ Rs 125.04 / kg	Rs 502542.01
2	13.52.1 Finishing with Epoxy paint (two or more coats) at all location manufacturer's specifications including appropriate priming coat, prepasteel work	

	Net Total Quantity	81.429 sqm
	Say 81.429 sqm @ Rs 233.10 / sqm	Rs 18981.10
1Арр	endix B - (2) - Design and Construction of pipeline bridge across at k laying M S pipe and connecting to the existing line (Cost	cattappana river- (c) Supply and t Index:41.53 %)
1	100.37.8.1 Fabricating MS pipes of size 250mm (ID) using 8 mm thick MS plate charges of MS plate, all fabrication charges, charges of painting the deluxe multi surface paint to give an even shade over an under coat fabricated with 8mm thick MS plates.	e steel work with two or more coa
	Net Total Quantity	42.000 metre
	Say 42.000 metre @ Rs 7163.54 / metre	Rs 300868.68
	Excavating trenches of required width for pipes, cables, etc included dressing of sides, ramming of bottoms, depth up to 1.5 m, including of their returning the soil as required, in layers not exceeding 20 cm in of deposited layer by ramming, watering, etc. and disposing of surplus elead of 50 m:  All kinds of soil  (Ref. Item No. 2.10.1 of DSR)	getting out the excavated soil, ar depth, including consolidatingead
	Net Total Quantity	7.680 cum
	Say 7.680 cum @ Rs 579.85 / cum	Rs 4453.25
3	100.37.8.3  Cutting 250 mm (ID) MS pipes for making bends and other specials b all labour and hire charges of tools etc. complete: For pipes fabricated	
	Net Total Quantity	36.000 No
	Say 36.000 No @ Rs 272.02 / No	Rs 9792.72
4	100.37.8.4 Welding 250mm (ID) MS pipes for making bends and other specials including cost of gas and welding rods ,all labour and hire charges fabricated with 8mm thick MS plates.	, ,
	Net Total Quantity	50.000 No
	Say 50.000 No @ Rs 1040.81 / No	Rs 52040.50
5	100.37.8.5 Grinding cut and weld edges of 250 mm (ID) MS pipes during fabrication hire charges of tools etc. complete: For pipes fabricated with 8mm the	<del>_</del>
	Net Tetal Overtite	EO 000 No
	Net Total Quantity	50.000 NO

6	100.14.4	
U	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Ire	on Pipes conforming to IS: 832
	excluding cost of pipes and specials :	
	250 mm dia Ductile Iron Class K-9 Pipes	
	Data derived from 18.72.18 in DAR	
	Net Total Quantity	42.000 metre
	Say 42.000 metre @ Rs 170.19 / metre	Rs 7147.98
7	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mecha 300 mm dia	nical jointing as per IS 13382:Up
	Net Total Quantity	0.960 quintal
	Say 0.960 quintal @ Rs 14708.65 / quintal	Rs 14120.30
8	5.1.3 Providing and laying in position specified grade of reinforced ceme centering, shuttering, finishing and reinforcement - All work up to plint sand: 4 graded stone aggregate 20 mm nominal size)	,
	Net Total Quantity	6.912 cum
	Say 6.912 cum @ Rs 8964.72 / cum	Rs 61964.14
9	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting binding all complete upto plinth levelThermo Mechanically Treate	• • • •
	Net Total Quantity	622.800 kilogram
	Say 622.800 kilogram @ Rs 102.61 / kilogram	Rs 63905.51
10	100.32.2	
. •	Conveying and fixing C I Single acting Air Valve of approved quality we excluding the cost of air valve(the tail pieces if required will be paid se	perately):
	40 mm Single acting Air Valve Observed Data derived from item no.18	.59.01 DAK
	Net Total Quantity	1.000 Nos
	Say 1.000 Nos @ Rs 184.41 / Nos	Rs 184.41
11	100.31.1.1 "Conveying and fixing C.I. sluice valves (with cap) by providing of insertions etc. excluding the cost of valve (the tail pieces if require diameter. Class I"  Observed Data derived from item no.18.31.of DAR	•
	Net Total Quantity	1.000 Nos
	Say 1.000 Nos @ Rs 613.74 / Nos	Rs 613.74
12	100.98.448 Supply of CI Air Valve with Flanges, Conforming to IS 14845 - 2000 40mm	

	Net Total Quantity	572.001 cum
	(Ref. Item No. 2.10.1 of DSR)	
	deposited layer by ramming, watering, etc. and disposing of surplus e lead of 50 m:  All kinds of soil	excavated soil as directed, within
	Excavating trenches of required width for pipes, cables, etc included dressing of sides, ramming of bottoms, depth up to 1.5 m, including of then returning the soil as required, in layers not exceeding 20 cm in contract the contract of th	getting out the excavated soil, a depth, including consolidatingea
1	100.1.1	Taligo (Oost much. 71.00
3∆nnei	ndix B - (3) - Wash water disposal arrangements at TP- (b) Working c	
	Say 18.201 quintal @ Rs 20384.00 / quintal	Rs 371009.18
	Supply Di specials, rees, Berius, Collars, rapers etc.  Net Total Quantity	18 201 quintal
4	od81358/2020_2021 Supply DI specials,Tees,Bends,Collars,Tapers etc.	
	Say 2.000 No @ Rs 77806.55 / No	Rs 155613.10
	Net Total Quantity	
	Size 350mm. Kerala Water Authority	·
3	100.98.464 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20	000, Sluice Valve with Cap PN
	Say 40.000 metre @ Rs 10799.16 / metre	Rs 431966.40
	Net Total Quantity	and the second
	Providing and laying Double Flanged (screwed / welded) Centrifugal 1536):350 mm dia C.I Double Flanges Pipe	
2	18.71.6	
	Say 408.000 metre @ Rs 5506.95 / metre	Rs 2246835.60
	Net Total Quantity	408.000 metre
'	Supply of DI K9 Pipe Conforming to IS 8329/2000, 350mm Dia.	
1	100.98.120	4003t HIUGA.#1.33
Λnnon	Say 1.000 No @ Rs 6624.05 / No dix B - (3) - Wash water disposal arrangements at TP- (a) - Cost of m	
	Net Total Quantity	Rs 6624.05
	Size 80mm.	1 000 No
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20	000, Sluice Valve with Cap PN
13	100.98.457	
	Say 1.000 No @ Rs 7646.15 / No	Rs 7646.15

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  Net Total Quantity Say 400.000 metre ® Rs 283.70 / metre  Say 400.000 metre ® Rs 283.70 / metre  Rs 113480.00  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  Net Total Quantity  Net Total Quantity 15.000 Each Cut Say 15.000 Each Cut ® Rs 781.10 / Each Cut Say 15.000 Each Cut ® Rs 781.10 / Each Cut  Rs 11716.50  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, \$50 mm dia pipes;  Net Total Quantity 1.240 quintal Say 1.240 quintal ® Rs 15492.79 / quintal  Rs 19211.06  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).  Net Total Quantity 1.240 quintal Say 18.201 quintal ® Rs 603.91 / quintal Rs 10991.77  8 100.35.6 Testing 350mm DI/Cl pipeline with potable water to the required test pressure. 350 mm dia Observed Data derived from item no.1024 of PHED DATA  Net Total Quantity 400.000 metre	2	100.14.6	
350 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.20 in DAR  Net Total Quantity  Net Total Quantity  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  Net Total Quantity 2.000 Nos  Rs 8296.20  18.83.8  Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe  Net Total Quantity 15.000 Each Cut Say 15.000 Each Cut @ Rs 781.10 / Each Cut  Say 15.000 Each Cut @ Rs 781.10 / Each Cut  Rs 11716.50  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 dial pipes;  Net Total Quantity 85ay 85.000 joint @ Rs 456.93 / joint Rs 38839.05  18.67.2 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Above 300 mm dia  Net Total Quantity 1.240 quintal  Say 1.240 quintal @ Rs 15492.79 / quintal  Rs 19211.06  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).  Net Total Quantity Say 18.201 quintal @ Rs 603.91 / quintal  Rs 10991.77  8 100.35.6 Testing 350mm Dl/Cl pipeline with potable water to the required test pressure. 350 mm dia Observed Data derived from item no.1024 of PHED DATA	2		on Pipes conforming to IS: 8329
Data derived from 18.72.20 in DAR		excluding cost of pipes and specials :	
Net Total Quantity  Say 400.000 metre ® Rs 283.70 / metre  Rs 113480.00  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 III* Observed Data derived from item no.18.31.of DAR  Net Total Quantity Say 2.000 Nos ® Rs 4148.10 / Nos  Rs 8296.20  18.83.8  Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe Net Total Quantity Say 15.000 Each Cut ® Rs 781.10 / Each Cut Rs 11716.50  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;  Net Total Quantity Say 85.000 joint ® Rs 456.93 / joint Rs 38839.05  18.67.2  Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Above 300 mm dia  Net Total Quantity 1.240 quintal Say 1.240 quintal ® Rs 15492.79 / quintal Rs 19211.06  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).  Net Total Quantity Say 18.201 quintal ® Rs 603.91 / quintal Rs 10991.77  8 100.35.6  Testing 350mm DI/Cl pipeline with potable water to the required test pressure. 350 mm dia Observed Data derived from item no.1024 of PHED DATA		·	
Say 400.000 metre @ Rs 283.70 / metre  Rs 113480.00  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  Net Total Quantity Say 2.000 Nos @ Rs 4148.10 / Nos Rs 8296.20  18.83.8 Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe  Net Total Quantity Say 15.000 Each Cut @ Rs 781.10 / Each Cut Rs 11716.50  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  Net Total Quantity Say 85.000 joint @ Rs 456.93 / joint  Rs 38839.05  18.67.2 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Above 300 mm dia  Net Total Quantity Say 1.240 quintal @ Rs 15492.79 / quintal  Rs 19211.06  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).  Net Total Quantity Say 18.201 quintal @ Rs 603.91 / quintal  Rs 100.35.6 Testing 350mm Di/Cl pipeline with potable water to the required test pressure. 350 mm dia Observed Data derived from item no.1024 of PHED DATA		Data derived from 18.72.20 in DAR	
The conveying and fixing C.I. stuice 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  Net Total Quantity  Say 2.000 Nos ® Rs 4148.10 / Nos Rs 8296.20  18.83.8  Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe  Net Total Quantity  Say 15.000 Each Cut ® Rs 781.10 / Each Cut Rs 11716.50  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  Net Total Quantity 85.000 joint  Say 85.000 joint ® Rs 456.93 / joint Rs 38839.05  18.67.2  Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Above 300 mm dia  Net Total Quantity 1.240 quintal  Say 1.240 quintal ® Rs 15492.79 / quintal  Rs 19211.06  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).  Net Total Quantity 18.201 quintal  Say 18.201 quintal ® Rs 603.91 / quintal  Rs 10991.77  8 100.35.6  Testing 350mm Di/Cl pipeline with potable water to the required test pressure.  350 mm dia  Observed Data derived from item no.1024 of PHED DATA		Net Total Quantity	400.000 metre
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  Net Total Quantity  Say 2.000 Nos ® Rs 4148.10 / Nos  Rs 8296.20  4 18.83.8  Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe  Net Total Quantity  Say 15.000 Each Cut ® Rs 781.10 / Each Cut  Say 15.000 Each Cut ® Rs 781.10 / Each Cut  Rs 11716.50  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  Net Total Quantity  Rs 38839.05  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  Net Total Quantity  Say 1.240 quintal ® Rs 15492.79 / quintal  Rs 19211.06  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).  Net Total Quantity  Say 18.201 quintal ® Rs 603.91 / quintal  Rs 10991.77  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		Say 400.000 metre @ Rs 283.70 / metre	Rs 113480.00
Say 2.000 Nos @ Rs 4148.10 / Nos  Rs 8296.20  4 18.83.8 Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe  Net Total Quantity  Say 15.000 Each Cut @ Rs 781.10 / Each Cut  Say 15.000 Each Cut @ Rs 781.10 / Each Cut  Rs 11716.50  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  Net Total Quantity  Say 85.000 joint @ Rs 456.93 / joint Rs 38839.05  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  Net Total Quantity  Say 1.240 quintal @ Rs 15492.79 / quintal  Rs 19211.06  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).  Net Total Quantity  Say 18.201 quintal @ Rs 603.91 / quintal  Rs 10991.77  8 100.35.6 Testing 350mm DI/Cl pipeline with potable water to the required test pressure. 350 mm dia Observed Data derived from item no.1024 of PHED DATA	3	Conveying and fixing C.I. sluice valves (with cap) by providing complet etc. excluding the cost of valve (the tail pieces if required will be paid s 350 mm diameter. Class II"	
4 18.83.8 Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe  Net Total Quantity 15.000 Each Cut  Say 15.000 Each Cut @ Rs 781.10 / Each Cut  Rs 11716.50  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  Net Total Quantity 85.000 joint  Say 85.000 joint @ Rs 456.93 / joint Rs 38839.05  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  Net Total Quantity 1.240 quintal  Say 1.240 quintal @ Rs 15492.79 / quintal  Rs 19211.06  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).  Net Total Quantity 18.201 quintal  Say 18.201 quintal @ Rs 603.91 / quintal  Rs 10991.77  8 100.35.6 Testing 350mm DI/Cl pipeline with potable water to the required test pressure. 350 mm dia Observed Data derived from item no.1024 of PHED DATA		Net Total Quantity	2.000 Nos
Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe  Net Total Quantity  15.000 Each Cut  Say 15.000 Each Cut ® Rs 781.10 / Each Cut  Rs 11716.50  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  Net Total Quantity  Say 85.000 joint ® Rs 456.93 / joint  Rs 38839.05  18.67.2  Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Above 300 mm dia  Net Total Quantity  Say 1.240 quintal ® Rs 15492.79 / quintal  Rs 19211.06  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).  Net Total Quantity  Say 18.201 quintal ® Rs 603.91 / quintal  Rs 10991.77  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		Say 2.000 Nos @ Rs 4148.10 / Nos	Rs 8296.20
Say 15.000 Each Cut @ Rs 781.10 / Each Cut  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  Net Total Quantity  85.000 joint  Rs 38839.05  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  Net Total Quantity  Say 1.240 quintal @ Rs 15492.79 / quintal  Rs 19211.06  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).  Net Total Quantity  Say 18.201 quintal @ Rs 603.91 / quintal  Rs 10991.77  8 100.35.6 Testing 350mm DI/Cl pipeline with potable water to the required test pressure. 350 mm dia Observed Data derived from item no.1024 of PHED DATA	4		
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  Net Total Quantity 85.000 joint  Say 85.000 joint @ Rs 456.93 / joint Rs 38839.05  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  Net Total Quantity 1.240 quintal  Say 1.240 quintal @ Rs 15492.79 / quintal  Rs 19211.06  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).  Net Total Quantity 18.201 quintal  Say 18.201 quintal @ Rs 603.91 / quintal  Rs 10991.77  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		Net Total Quantity	15.000 Each Cut
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 (Net Total Quantity) 85.000 joint    Net Total Quantity   85.000 joint   Rs 38839.05		Say 15.000 Each Cut @ Rs 781.10 / Each Cut	Rs 11716.50
Say 85.000 joint @ Rs 456.93 / joint  Rs 38839.05  18.67.2 Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Above 300 mm dia  Net Total Quantity 1.240 quintal  Say 1.240 quintal @ Rs 15492.79 / quintal  Rs 19211.06  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).  Net Total Quantity 18.201 quintal  Say 18.201 quintal @ Rs 603.91 / quintal  Rs 10991.77  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	5	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Du	uctile Iron Pipes including testing of
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  Net Total Quantity 1.240 quintal  Say 1.240 quintal @ Rs 15492.79 / quintal  Rs 19211.06  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).  Net Total Quantity 18.201 quintal  Say 18.201 quintal @ Rs 603.91 / quintal  Rs 10991.77  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		Net Total Quantity	85.000 joint
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  Net Total Quantity 1.240 quintal  Say 1.240 quintal @ Rs 15492.79 / quintal  Rs 19211.06  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).  Net Total Quantity 18.201 quintal  Say 18.201 quintal @ Rs 603.91 / quintal  Rs 10991.77  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		Say 85.000 joint @ Rs 456.93 / joint	Rs 38839.05
Say 1.240 quintal @ Rs 15492.79 / quintal  7	6	Providing and laying S & S C.I. Standard specials suitable for mechan	ical jointing as per IS 13382:Above
Say 1.240 quintal @ Rs 15492.79 / quintal  7		Net Total Quantity	1.240 guintal
Taying in position S & S or flanged C.I. special such as tees, bends, collars, tapers and caps etc. (excluding cost of specials).  Net Total Quantity  18.201 quintal  Say 18.201 quintal @ Rs 603.91 / quintal  Rs 10991.77  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		·	•
Say 18.201 quintal @ Rs 603.91 / quintal Rs 10991.77  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	7	18.24 Laying in position S & S or flanged C.I. special such as tees, bend	
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		Net Total Quantity	18.201 quintal
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		Say 18.201 quintal @ Rs 603.91 / quintal	Rs 10991.77
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	8		ı
	_	Testing 350mm DI/CI pipeline with potable water to the required test possible material of the re	ressure.
Net Total Quantity 400.000 metre		Observed Data derived from item no.1024 of PHED DATA	
		Net Total Quantity	400.000 metre

	Say 400.000 metre @ Rs 70.53 / metre	Rs 28212.00
9	5.1.3  Providing and laying in position specified grade of reinforced cemer centering, shuttering, finishing and reinforcement - All work up to plint sand: 4 graded stone aggregate 20 mm nominal size)	•
	Net Total Quantity	61.208 cum
	Say 61.208 cum @ Rs 8964.72 / cum	Rs 548712.58
10	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, binding all complete upto plinth levelThermo - Mechanically Treated	• • • •
	Net Total Quantity	2448.320 kilogram
	Say 2448.320 kilogram @ Rs 102.61 / kilogram	Rs 251222.12
11	5.9.1 Centering and shuttering including strutting, etc. and removal of form f columns, etc for mass concrete	or:Foundations, footings, bases
	Net Total Quantity	262.416 sqm
	Say 262.416 sqm @ Rs 350.00 / sqm	Rs 91845.60
12	od41799/2020 2021	
12	Construction of RCC valve chamber of size 1mx1mx1.4 m cost of concrete base,150 mm side wall,150mm bottom and cover slab of reinforcement including plastering inside and out side of wall.etc.co	chamber with M20 concrete w
12	Construction of RCC valve chamber of size 1mx1mx1.4 m cost of concrete base,150 mm side wall,150mm bottom and cover slab of	chamber with M20 concrete womplete.
12	Construction of RCC valve chamber of size 1mx1mx1.4 m cost of concrete base,150 mm side wall,150mm bottom and cover slab of reinforcement including plastering inside and out side of wall,etc.co	chamber with M20 concrete womplete.
4App	Construction of RCC valve chamber of size 1mx1mx1.4 m cost of concrete base,150 mm side wall,150mm bottom and cover slab of reinforcement including plastering inside and out side of wall,etc.co	chamber with M20 concrete womplete.  2.000 No  Rs 85938.10
4App	Construction of RCC valve chamber of size 1mx1mx1.4 m cost of a concrete base,150 mm side wall,150mm bottom and cover slab of reinforcement including plastering inside and out side of wall,etc.co  Net Total Quantity  Say 2.000 No @ Rs 42969.05 / No  endix B - (4) - supply and laying 80 mm GI pumping main from interm	chamber with M20 concrete womplete.  2.000 No  Rs 85938.10  nediate sump at Nariyanpara to (Cost Index:41.53 %)
4 <b>A</b> pp	Construction of RCC valve chamber of size 1mx1mx1.4 m cost of a concrete base,150 mm side wall,150mm bottom and cover slab of reinforcement including plastering inside and out side of wall,etc.co  Net Total Quantity  Say 2.000 No @ Rs 42969.05 / No  endix B - (4) - supply and laying 80 mm GI pumping main from interm GLSR at Nariyanpara top using 80 mm GI pipe- (a) Cost of materials  100.98.440	chamber with M20 concrete womplete.  2.000 No  Rs 85938.10  nediate sump at Nariyanpara to (Cost Index:41.53 %)  Small Orifice Type S1, Size 25mi
4 <b>A</b> pp	Construction of RCC valve chamber of size 1mx1mx1.4 m cost of a concrete base,150 mm side wall,150mm bottom and cover slab of reinforcement including plastering inside and out side of wall,etc.co  Net Total Quantity  Say 2.000 No @ Rs 42969.05 / No  endix B - (4) - supply and laying 80 mm GI pumping main from interm GLSR at Nariyanpara top using 80 mm GI pipe- (a) Cost of materials  100.98.440  Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, S	chamber with M20 concrete womplete.  2.000 No  Rs 85938.10  nediate sump at Nariyanpara to (Cost Index:41.53 %)  Small Orifice Type S1, Size 25mi
4 <b>A</b> pp	Construction of RCC valve chamber of size 1mx1mx1.4 m cost of a concrete base,150 mm side wall,150mm bottom and cover slab of reinforcement including plastering inside and out side of wall,etc.co  Net Total Quantity  Say 2.000 No @ Rs 42969.05 / No  endix B - (4) - supply and laying 80 mm GI pumping main from interm GLSR at Nariyanpara top using 80 mm GI pipe- (a) Cost of materials  100.98.440  Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Single Or	chamber with M20 concrete womplete.  2.000 No  Rs 85938.10  dediate sump at Nariyanpara to (Cost Index:41.53 %)  Small Orifice Type S1, Size 25min 3.000 No  Rs 16910.25
<b>4App</b> (	Construction of RCC valve chamber of size 1mx1mx1.4 m cost of a concrete base,150 mm side wall,150mm bottom and cover slab of reinforcement including plastering inside and out side of wall,etc.co.  Net Total Quantity  Say 2.000 No @ Rs 42969.05 / No  endix B - (4) - supply and laying 80 mm GI pumping main from interm GLSR at Nariyanpara top using 80 mm GI pipe- (a) Cost of materials  100.98.440  Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Single O	chamber with M20 concrete womplete.  2.000 No  Rs 85938.10  nediate sump at Nariyanpara to (Cost Index:41.53 %)  Small Orifice Type S1, Size 25mi 3.000 No  Rs 16910.25
<b>4App</b> (	Construction of RCC valve chamber of size 1mx1mx1.4 m cost of a concrete base,150 mm side wall,150mm bottom and cover slab of reinforcement including plastering inside and out side of wall.etc.co.  Net Total Quantity  Say 2.000 No @ Rs 42969.05 / No  endix B - (4) - supply and laying 80 mm GI pumping main from interm GLSR at Nariyanpara top using 80 mm GI pipe- (a) Cost of materials  100.98.440  Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Single O	chamber with M20 concrete womplete.  2.000 No  Rs 85938.10  nediate sump at Nariyanpara to (Cost Index:41.53 %)  Small Orifice Type S1, Size 25mi 3.000 No  Rs 16910.25
<b>4App</b> (	Construction of RCC valve chamber of size 1mx1mx1.4 m cost of a concrete base,150 mm side wall,150mm bottom and cover slab of reinforcement including plastering inside and out side of wall,etc.co.  Net Total Quantity  Say 2.000 No @ Rs 42969.05 / No  endix B - (4) - supply and laying 80 mm GI pumping main from interm GLSR at Nariyanpara top using 80 mm GI pipe- (a) Cost of materials  100.98.440  Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Some Net Total Quantity  Say 3.000 No @ Rs 5636.75 / No  100.98.457  Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 20 Size 80mm.  Net Total Quantity	chamber with M20 concrete womplete.  2.000 No  Rs 85938.10  Rediate sump at Nariyanpara to (Cost Index:41.53 %)  Small Orifice Type S1, Size 25mi 3.000 No  Rs 16910.25  000, Sluice Valve with Cap PN 1

	Say 1177.000 metre @ Rs 830.16 / metre	Rs 977098.32
4	od41983/2020_2021	
	Specials for 80mm GI pipe -10 % of value of pipe supply-(supplying	and laying 80 mm GI pipes fro
	intermediate sump at Nariyanpara to GLSR at Nariyanpara top-(a) C	Cost of materials)
	Net Total Quantity	1.000 set
	Say 1.000 set @ Rs 81318.93 / set	Rs 81318.93
5App	pendix B - (4) - supply and laying 80 mm GI pumping main from interm GLSR at Nariyanpara top using 80 mm GI pipe-(b) Working charges	ediate sump at Nariyanpara to (Cost Index:41.53 %)
1	100.12.8	
	Conveying and fixing G.I. pipes complete with G.I. fittings includin	g trenching and refilling etc. b
	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	
	Net Total Quantity	1177.000 metre
	Say 1177.000 metre @ Rs 217.74 / metre	Rs 256279.98
2	100.31.2.1	
	"Conveying and fixing C.I. sluice valves (with cap) by providing c	omplete with bolts, nuts, rubb
	insertions etc. excluding the cost of valve (the tail pieces if requi	·
	80 mm diameter. Class II"	
	Observed Data derived from item no.18.31.of DAR	
	Net Total Quantity	1.000 Nos
	Say 1.000 Nos @ Rs 652.74 / Nos	
3	100.32.1	113 002.7 4
3	Conveying and fixing C I Single acting Air Valve of approved quality wi	th halts nuts rubbar insertions at
	excluding the cost of air valve(the tail pieces if required will be paid sep	
	25 mm Single acting Air Valve	oratory).
	Observed Data derived from item no.18.59.of DAR	
	Net Total Quantity	3.000 Nos
	Say 3.000 Nos @ Rs 146.63 / Nos	Rs 439.89
4	5.2.2	toohad pilaatara kuutussassa sii
	Reinforced cement concrete work in walls (any thickness), including at	·
	and string courses, fillets, columns, pillars, piers, abutments, posts are	•
	excluding cost of centering, shuttering, finishing and reinforcement :1:13 graded stone aggregate 20 mm nominal size)	1.5.5( ) cement. 1.5 coarse san
		2 941 oum
	Net Total Quantity	
	Say 3.841 cum @ Rs 11433.93 / cum	Rs 43917.73

	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting,	• • • •
	binding all complete upto plinth levelThermo - Mechanically Treated	-
	Net Total Quantity	192.050 kilogram
	Say 192.050 kilogram @ Rs 102.61 / kilogram	Rs 19706.25
6	5.9.1 Centering and shuttering including strutting, etc. and removal of form to columns, etc for mass concrete	for:Foundations, footings, bases
	Net Total Quantity	19.200 sqm
	Say 19.200 sqm @ Rs 350.00 / sqm	Rs 6720.00
ôΑppe	endix B - (5) - Design and construction of intermediate sump at Nariya	anpara (Cost Index:41.53 %
1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush w to 30 cm measured at a height of 1 m above ground level and remove m outside the periphery of the area cleared	
	Net Total Quantity	225.000 sqm
	Say 225.000 sqm @ Rs 15.43 / sqm	Rs 3471.75
	Earth work in excavation by mechanical means (Hydraulic excavat trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan ramming of bottoms, lift up to 1.5 m, including getting out the excavation.)	), including dressing of sides a
	excavated soil as directed, within a lead of 50 m.All kinds of soil	vated soil and disposal of sulpi
	excavated soil as directed, within a lead of 50 m.All kinds of soil  Net Total Quantity	
3	Net Total Quantity	162.000 cum  Rs 50211.90  ator )/ manual means over are n) including disposal of excavat
3	Say 162.000 cum @ Rs 309.95 / cum  2.7.2  Earth work in excavation by mechanical means (Hydraulic excava (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on planearth, lead up to 50 m and lift up to 1.5 m, disposed earth to be leve	Rs 50211.90  ator )/ manual means over are n) including disposal of excavat lled and neatly dressed.Hard ro
3	Say 162.000 cum @ Rs 309.95 / cum  2.7.2  Earth work in excavation by mechanical means (Hydraulic excava (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on planearth, lead up to 50 m and lift up to 1.5 m, disposed earth to be leve (requiring blasting)	Rs 50211.90  ator )/ manual means over are n) including disposal of excavat lled and neatly dressed.Hard ro
3	Say 162.000 cum @ Rs 309.95 / cum  2.7.2 Earth work in excavation by mechanical means (Hydraulic excavation (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on planearth, lead up to 50 m and lift up to 1.5 m, disposed earth to be leve (requiring blasting)  Net Total Quantity  Say 96.000 cum @ Rs 749.05 / cum  4.1.6 Providing and laying in position cement concrete of specified grade eshuttering - All work up to plinth level:1:3:6 (1 cement: 3 coarse sand)	Rs 50211.90  ator )/ manual means over are n) including disposal of excavatelled and neatly dressed. Hard rough 196.000 cum  Rs 71908.80  excluding the cost of centering and sexcluding the cost of centering and sexcluding the cost of centering the cost o
	Net Total Quantity  Say 162.000 cum @ Rs 309.95 / cum  2.7.2  Earth work in excavation by mechanical means (Hydraulic excavation (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plant earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be lever (requiring blasting)  Net Total Quantity  Say 96.000 cum @ Rs 749.05 / cum  4.1.6  Providing and laying in position cement concrete of specified grade earth.	Rs 50211.90  ator )/ manual means over are n) including disposal of excavate lled and neatly dressed. Hard rough 196.000 cum  Rs 71908.80  excluding the cost of centering at the cost of centering

5	7.1.1	
Ü	Random rubble masonry with hard stone in foundation and plinth i	ncluding levelling up with cement
	concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggrega	• • •
	level with:Cement mortar 1:6 (1 cement : 6 coarse sand)	
	Net Total Quantity	66.500 cum
	Say 66.500 cum @ Rs 7520.41 / cum	Rs 500107.27
6	4.1.5	
	Providing and laying in position cement concrete of specified grade e	excluding the cost of centering and
	shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand nominal size)	: 6 graded stone aggregate 20 mm
	Net Total Quantity	9.729 cum
	Say 9.729 cum @ Rs 7690.32 / cum	Rs 74819.12
7	5.33.2	
	Providing and laying in position machine batched and machine mixe	
	concrete for reinforced cement concrete work, using cement con-	
	including pumping of concrete to site of laying but excluding the cos	
	and reinforcement, including admixtures in recommended proportion retard setting of concrete, improve workability without impairing strength	
	Engineer - in-charge. Note:- Cement content considered in this item	
	cement used as per design mix is payable or recoverable separately.	All work above plinth level upto floor
	V level	
	Kerala Water Net Total Quantity	46.775 cum
	Say 46.775 cum @ Rs 11550.40 / cum	Rs 540269.96
8	5.34.1	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 grad	· ·
	BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg	/cum).
	Net Total Quantity	46.775 cum
	Say 46.775 cum @ Rs 85.70 / cum	Rs 4008.62
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 Treate	d bars of grade Fe-500D or more
	Net Total Quantity	5613.000 kilogram
	Say 5613.000 kilogram @ Rs 102.61 / kilogram	Rs 575949.93
10	5.9.1	
	Centering and shuttering including strutting, etc. and removal of form	for:Foundations, footings, bases of
	columns, etc for mass concrete	
	Net Total Quantity	18.841 sqm
	Say 18.841 sqm @ Rs 350.00 / sqm	Rs 6594.35
	· · · · · · · · · · · · · · · · · · ·	<u> </u>

11	5.9.2 Centering and shuttering including strutting, etc. and removal of form attached pilasters, butteresses, plinth and string courses etc.	for:Walls (any thickness) includir
	Net Total Quantity	141.000 sqm
	Say 141.000 sqm @ Rs 748.62 / sqm	Rs 105555.42
12	5.9.3 Centering and shuttering including strutting, etc. and removal of landings, balconies and access platform	form for:Suspended floors, roof
	Net Total Quantity	71.450 sqm
	Say 71.450 sqm @ Rs 851.52 / sqm	Rs 60841.10
13	5.9.5 Centering and shuttering including strutting, etc. and removal of form girders bressumers and cantilevers	n for:Lintels, beams, plinth bean
	Net Total Quantity	10.320 sqm
	Say 10.320 sqm @ Rs 678.28 / sqm	Rs 6999.85
14	5.9.6 Centering and shuttering including strutting, etc. and removal of Abutments, Posts and Struts	form for:Columns, Pillars, Pie
	Net Total Quantity	3.600 sqm
	Say 3.600 sqm @ Rs 901.48 / sqm	Rs 3245.33
15	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of m	nix:1:3 ( 1 cement : 3 fine sand)
	Net Total Quantity	125.900 sqm
	Say 125.900 sqm @ Rs 418.79 / sqm	Rs 52725.66
16	13.8.2 15 mm cement plaster on rough side of single or half brick wall fir cement of mix:1: 4 ( 1 cement : 4 fine sand)	nished with a floating coat of ne
	Net Total Quantity	235.622 sqm
	Say 235.622 sqm @ Rs 453.75 / sqm	Rs 106913.48
17	100.41.33 Supplying and fixing 500mm dia CI manhole cover with frame( medial labour charges etc complete.	um duty) charges including all co
	Net Total Quantity	2.000 Nos
	Say 2.000 Nos @ Rs 7835.95 / Nos	Rs 15671.90
18	13.44.1 Finishing walls with water proofing cement paint of required shade:Ne @ 3.84 kg/10 sqm)	w work (Two or more coats appli

	Net Total Quantity	235.622 sqm
	Say 235.622 sqm @ Rs 112.09 / sqm	Rs 26410.87
19	10.26.3  Providing and fixing hand rail of approved size by welding etc. to s staircase railing and similar works, including applying priming coat of	•
	Net Total Quantity	83.950 kg
	Say 83.950 kg @ Rs 194.18 / kg	Rs 16301.41
20	od149225/2018_2019  DOWEL BARS - Supplying and providing MS dowel bars of size 16 in 1m in concrete ) including drilling holes of 20mm dia to a depth of cement grout( 0.10kg/each) etc complete.	= :
	Net Total Quantity	50.000 No
	Say 50.000 No @ Rs 481.80 / No	Rs 24090.00
21	od148944/2018_2019 Supplying and fixing 100mm dia vent cowl incl. fitting charges etc. com	plete
	Net Total Quantity	2.000 No
	Say 2.000 No @ Rs 3484.50 / No	Rs 6969.00
22	od148945/2018_2019 Supplying & fixing wall casting pipes 300mm - 2 Nos ,150mm - 3 Nos, overflow including labour charges etc. Complete and interconnecting as per order no: KWA/HO/SP-5160/2014-15/CI Specials dated 29.07.	overflow units distribution line ( ra
22	Supplying & fixing wall casting pipes 300mm - 2 Nos, 150mm - 3 Nos, overflow including labour charges etc. Complete and interconnecting of	overflow units distribution line ( ra 2015)
22	Supplying & fixing wall casting pipes 300mm - 2 Nos ,150mm - 3 Nos, overflow including labour charges etc. Complete and interconnecting of as per order no: KWA/HO/SP-5160/2014-15/CI Specials dated 29.07.	overflow units distribution line ( ra 2015) 1.000 No
	Supplying & fixing wall casting pipes 300mm - 2 Nos ,150mm - 3 Nos, overflow including labour charges etc. Complete and interconnecting of as per order no: KWA/HO/SP-5160/2014-15/CI Specials dated 29.07.  Net Total Quantity	overflow units distribution line ( ra 2015) 1.000 No Rs 48175.54
	Supplying & fixing wall casting pipes 300mm - 2 Nos ,150mm - 3 Nos, overflow including labour charges etc. Complete and interconnecting of as per order no: KWA/HO/SP-5160/2014-15/CI Specials dated 29.07.  Net Total Quantity  Say 1.000 No @ Rs 48175.54 / No pendix B - (6) - construction of intermediate pump house at Nariyanp	noverflow units distribution line ( ra 2015)  1.000 No  Rs 48175.54  Para- (a) Construction of pump  tor) /manual means in foundation (a), including dressing of sides ar
17Арр	Supplying & fixing wall casting pipes 300mm - 2 Nos ,150mm - 3 Nos, overflow including labour charges etc. Complete and interconnecting of as per order no: KWA/HO/SP-5160/2014-15/CI Specials dated 29.07.  Net Total Quantity  Say 1.000 No @ Rs 48175.54 / Note pendix B - (6) - construction of intermediate pump house at Nariyanp house (Cost Index:41.53 %)  2.8.1  Earth work in excavation by mechanical means (Hydraulic excavation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan ramming of bottoms, lift up to 1.5 m, including getting out the excavation of the square of t	nverflow units distribution line ( ra 2015)  1.000 No  Rs 48175.54  Para- (a) Construction of pump  tor) /manual means in foundation, including dressing of sides are vated soil and disposal of surple
17Арр	Supplying & fixing wall casting pipes 300mm - 2 Nos ,150mm - 3 Nos, overflow including labour charges etc. Complete and interconnecting of as per order no: KWA/HO/SP-5160/2014-15/CI Specials dated 29.07.  Net Total Quantity  Say 1.000 No @ Rs 48175.54 / Note that the same intermediate pump house at Nariyang house (Cost Index:41.53 %)  2.8.1  Earth work in excavation by mechanical means (Hydraulic excavatenches or drains (not exceeding 1.5 m in width or 10 sqm on plan ramming of bottoms, lift up to 1.5 m, including getting out the excatex excavated soil as directed, within a lead of 50 m.All kinds of soil	nverflow units distribution line ( raz 2015)  1.000 No  Rs 48175.54  Para- (a) Construction of pump  tor) /manual means in foundation, including dressing of sides are vated soil and disposal of surple  24.307 cum
17Арр	Supplying & fixing wall casting pipes 300mm - 2 Nos ,150mm - 3 Nos, overflow including labour charges etc. Complete and interconnecting of as per order no: KWA/HO/SP-5160/2014-15/CI Specials dated 29.07.  Net Total Quantity  Say 1.000 No @ Rs 48175.54 / Note pendix B - (6) - construction of intermediate pump house at Nariyanp house (Cost Index:41.53 %)  2.8.1  Earth work in excavation by mechanical means (Hydraulic excavatenches or drains (not exceeding 1.5 m in width or 10 sqm on plan ramming of bottoms, lift up to 1.5 m, including getting out the excatex excavated soil as directed, within a lead of 50 m.All kinds of soil  Net Total Quantity	nverflow units distribution line ( raize 2015)  1.000 No  Rs 48175.54  Para- (a) Construction of pump  tor) /manual means in foundation, including dressing of sides are vated soil and disposal of surple 24.307 cum  Rs 7533.95  In sides of foundations etc. in layer
<b>17Ap</b> ;	Supplying & fixing wall casting pipes 300mm - 2 Nos, 150mm - 3 Nos, overflow including labour charges etc. Complete and interconnecting of as per order no: KWA/HO/SP-5160/2014-15/CI Specials dated 29.07.  Net Total Quantity  Say 1.000 No @ Rs 48175.54 / No.  Pendix B - (6) - construction of intermediate pump house at Nariyanp house (Cost Index:41.53 %)  2.8.1  Earth work in excavation by mechanical means (Hydraulic excavate trenches or drains (not exceeding 1.5 m in width or 10 sqm on plar ramming of bottoms, lift up to 1.5 m, including getting out the excate excavated soil as directed, within a lead of 50 m.All kinds of soil  Net Total Quantity  Say 24.307 cum @ Rs 309.95 / cum  50.2.25.1  Filling with contractor's own earth (excluding rock) in trenches, plinth not exceeding 20 cm in depth, consolidating each deposited layer by	noverflow units distribution line ( raized 2015)  1.000 No  Rs 48175.54  Para- (a) Construction of pump  tor) /manual means in foundation (a), including dressing of sides are vated soil and disposal of surplue 24.307 cum  Rs 7533.95  , sides of foundations etc. in layer ramming and watering, lead up

3	7.1.1	
	Random rubble masonry with hard stone in foundation and plinth i concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate level with: Cement mortar 1:6 (1 cement : 6 coarse sand)	• •
	Net Total Quantity	14.198 cum
	Say 14.198 cum @ Rs 7520.41 / cum	Rs 106774.78
4	4.1.6 Providing and laying in position cement concrete of specified grade eshuttering - All work up to plinth level:1:3:6 (1 cement: 3 coarse sand nominal size)	<u> </u>
	Net Total Quantity	13.099 cum
	Say 13.099 cum @ Rs 7527.06 / cum	Rs 98596.96
	Solid block masonry using pre cast solid blocks (Factory made) of size size confirming to IS 2185 Part I of 1979 for super structure above thickness 20cm and above in: CM 1:6 (1 cement :6 coarse sand)	floor two level up to floor V level
Net Total Quantity 33.406 cum		etc complete
6	Net Total Quantity	33.406 cum  Rs 260056.69  quired size M.S. laths, interlocker y end locks, mounted on special aside and outside locking with pusking necessary 27.5 cm long wirts on special aside conforming to IS: 4454 - part
6	Say 33.406 cum @ Rs 7784.73 / cum  10.6.1  Supplying and fixing rolling shutters of approved make, made of rectogether through their entire length and jointed together at the end be designed pipe shaft with brackets, side guides and arrangements for in and pull operation complete, including the cost of providing and fix springs manufactured from high tensile steel wire of adequate streng and M.S. top cover of required thickness for rolling shutters.80x1.25	33.406 cum  Rs 260056.69  quired size M.S. laths, interlocked yend locks, mounted on special aside and outside locking with pusting necessary 27.5 cm long wire the conforming to IS: 4454 - part mm M.S. laths with 1.25 mm thick
6	Net Total Quantity  Say 33.406 cum @ Rs 7784.73 / cum  10.6.1  Supplying and fixing rolling shutters of approved make, made of rectogether through their entire length and jointed together at the end be designed pipe shaft with brackets, side guides and arrangements for in and pull operation complete, including the cost of providing and fix springs manufactured from high tensile steel wire of adequate streng and M.S. top cover of required thickness for rolling shutters.80x1.25 top cover	33.406 cum  Rs 260056.69  quired size M.S. laths, interlocke y end locks, mounted on speciall aside and outside locking with pusking necessary 27.5 cm long wire of the conforming to IS: 4454 - part mm M.S. laths with 1.25 mm thice
7	Net Total Quantity  Say 33.406 cum @ Rs 7784.73 / cum  10.6.1  Supplying and fixing rolling shutters of approved make, made of rectogether through their entire length and jointed together at the end be designed pipe shaft with brackets, side guides and arrangements for in and pull operation complete, including the cost of providing and fix springs manufactured from high tensile steel wire of adequate streng and M.S. top cover of required thickness for rolling shutters.80x1.25 top cover	Rs 260056.69  quired size M.S. laths, interlocked yend locks, mounted on specially aside and outside locking with pusking necessary 27.5 cm long with conforming to IS: 4454 - part mm M.S. laths with 1.25 mm thick side and side and outside locking with pusking necessary 27.5 cm long with conforming to IS: 4454 - part mm M.S. laths with 1.25 mm thick sides are sides of the sides of
	Say 33.406 cum @ Rs 7784.73 / cum  10.6.1  Supplying and fixing rolling shutters of approved make, made of rectogether through their entire length and jointed together at the end be designed pipe shaft with brackets, side guides and arrangements for in and pull operation complete, including the cost of providing and fix springs manufactured from high tensile steel wire of adequate streng and M.S. top cover of required thickness for rolling shutters.80x1.25 top cover  Net Total Quantity  Say 9.000 sqm @ Rs 3617.29 / sqm  10.5.1  Providing and fixing 1 mm thick M.S. sheet door with frame of 40x40 gusset plates at the junctions and corners, all necessary fittings com	Rs 260056.69  quired size M.S. laths, interlockery end locks, mounted on specially aside and outside locking with pusking necessary 27.5 cm long with conforming to IS: 4454 - part mm M.S. laths with 1.25 mm thic 9.000 sqm  Rs 32555.61  Ox6 mm angle iron and 3 mm M.S. plete, including applying a primining gonal braces

0	0.04	
8	9.6.1 Providing and fixing 35 mm thick factory made laminated veneer lum	
	14616 and TADS 15:2001 (Part B), including ISI marked M.S.pres	• •
	required size with necessery screws, all complete as per directions of with panels of:12 mm thick plain grade- 1, medium density flat presse	, ,
	or graded wood particle board FPT-I, IS: 3087 marked, bonded with	· ·
	as per IS: 848:	, , ,
	Net Total Quantity	1.441 sqm
	Say 1.441 sqm @ Rs 3239.48 / sqm	Rs 4668.09
9	5.1.2	
	Providing and laying in position specified grade of reinforced ceme	nt 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	
	Net Total Quantity	4.628 cum
	Say 4.628 cum @ Rs 9483.15 / cum	Rs 43888.02
10	5.2.2	
	Reinforced cement concrete work in walls (any thickness), including a	ttached pilasters, buttresses, plinth
	and string courses, fillets, columns, pillars, piers, abutments, posts a	nd 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)	
	Net Total Quantity	12.898 cum
	Say 12.898 cum @ Rs 11433.93 / cum	Rs 147474.83
11	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 Treate	d bars of grade Fe-500D or more
	Net Total Quantity	2103.120 kilogram
	Say 2103.120 kilogram @ Rs 102.61 / kilogram	Rs 215801.14
12	5.9.1	
	Centering and shuttering including strutting, etc. and removal of form	for:Foundations, footings, bases of
	columns, etc for mass concrete	
	Net Total Quantity	15.900 sqm
	Say 15.900 sqm @ Rs 350.00 / sqm	Rs 5565.00
13	5.9.3	
	Centering and shuttering including strutting, etc. and removal of	form for:Suspended floors, roofs,
	landings, balconies and access platform	
	Net Total Quantity	80.391 sqm
	Say 80.391 sqm @ Rs 851.52 / sqm	Rs 68454.54
		l .

14	5.9.5	a familiatala baansa miinth baansa
	Centering and shuttering including strutting, etc. and removal of forr girders bressumers and cantilevers	n for:Linteis, beams, piintn beams,
	Net Total Quantity	22.026 sqm
	Say 22.026 sqm @ Rs 678.28 / sqm	Rs 14939.80
15	5.9.6	
	Centering and shuttering including strutting, etc. and removal of Abutments, Posts and Struts	form for:Columns, Pillars, Piers,
	Net Total Quantity	11.520 sqm
	Say 11.520 sqm @ Rs 901.48 / sqm	Rs 10385.05
16	13.7.1	
	12 mm cement plaster finished with a floating coat of neat cement of m	nix:1:3 ( 1 cement : 3 fine sand)
	Net Total Quantity	187.680 sqm
	Say 187.680 sqm @ Rs 418.79 / sqm	Rs 78598.51
17	13.8.2	
	15 mm cement plaster on rough side of single or half brick wall fir	nished with a floating coat of neat
	cement of mix:1: 4 ( 1 cement : 4 fine sand)	<u>.</u>
	Net Total Quantity	307.362 sqm
	Say 307.362 sqm @ Rs 453.75 / sqm	Rs 139465.51
18	13.44.1 Kerala Water Authority	
	Finishing walls with water proofing cement paint of required shade:Ne  @ 3.84 kg/10 sqm)	w work (Two or more coats applied
	Net Total Quantity	495.043 sqm
	Say 495.043 sqm @ Rs 112.09 / sqm	Rs 55489.37
19	13.50.1 Applying priming coat:With ready mixed pink or Grey primer of approv	red and manufacture on wood work
	(hard and soft wood)	
	Net Total Quantity	9.000 sqm
	Say 9.000 sqm @ Rs 70.13 / sqm	Rs 631.17
20	13.48.3	
	Finishing with Deluxe Multi surface paint system for interiors ar	<u> </u>
	manufacturers specifications: Painting Steel work with Deluxe Multi St	<u>₹</u>
	Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of p approved brand and manufacture	inner applied & 0.00 ltt/10 sqfft 0
	Net Total Quantity	15.601 sqm
	Say 15.601 sqm @ Rs 154.62 / sqm	Rs 2412.23
	, , , , , , , , , , , , , , , , , , , ,	

8Appei	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavatrenches or drains (not exceeding 1.5 m in width or 10 sqm on plan ramming of bottoms, lift up to 1.5 m, including getting out the excatexcavated soil as directed, within a lead of 50 m.All kinds of soil  Net Total Quantity	n), including dressing of sides are vated soil and disposal of surplu
	Earth work in excavation by mechanical means (Hydraulic excavation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan ramming of bottoms, lift up to 1.5 m, including getting out the exca	n), including dressing of sides ar
	Earth work in excavation by mechanical means (Hydraulic excava	· ·
8Appeı		
	ndix B - (6) - construction of intermediate pump house at Nariyanpar wall and compound wall (Cost Index:41.53	• •
	Say 24.040 sqm @ Rs 1975.33 / sqm	
	Net Total Quantity	·
25	Providing and fixing 10 mm thick acid and /or alkali resistant tiles of ap and / or alkali resisting mortar bedding, and joints filled with acid and /o 4457, complete as per the direction of Engineer-in-Charge.In dado/ sk acid proof cement: 4 coarse sand)Acid and alkali resistant tile	or alkali resisting cement as per liciting on 12 mm thick mortar 1:4
	Say 4.200 sqm @ Rs 1836.85 / sqm	Rs 7714.77
	Kerala Water New Total Quantity	4.200 sqm
24	11.21.1.1 Providing and fixing 10 mm thick acid and /or alkali resistant tiles of ap and / or alkali resisting mortar bedding, and joints filled with acid and /o 4457, complete as per the direction of Engineer-in-Charge.In flooring (1 acid proof cement : 4 coarse sand)Acid and alkali resistant tile	or alkali resisting cement as per I on a bed of 10 mm thick mortar
	Say 6.783 cum @ Rs 4957.19 / cum	Rs 33624.62
	Net Total Quantity	6.783 cum
23	od148926/2018_2019  Dry rubble masonry with hard stone in foundation and plinth including 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 m with:	• •
	Say 1.000 No @ Rs 86206.16 / No	Rs 86206.16
	Net Total Quantity	1.000 No
22	od148939/2018_2019 Providing sanitary facilities and electrical works including water closet tank and 100ltr water tank and other required sanitary and electrical fit	•
	Say 1500.000 Letterxcm ht @ Rs 5.80 / Letterxcm ht	Rs 8700.00
	Net Total Quantity	1500.000 Letterxcm ht
	Lettering with black Japan pint of approved brand and manufacture	

2	4.1.5	
	Providing and laying in position cement concrete of specified grade e	excluding the cost of centering ar
	shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand nominal size)	: 6 graded stone aggregate 20 m
	Net Total Quantity	5.520 cum
	Say 5.520 cum @ Rs 7690.32 / cum	Rs 42450.57
3	7.1.1 Random rubble masonry with hard stone in foundation and plinth i concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregatelevel with:Cement mortar 1:6 (1 cement : 6 coarse sand)	
	Net Total Quantity	33.120 cum
	Say 33.120 cum @ Rs 7520.41 / cum	Rs 249075.98
4	5.2.2	
	Reinforced cement concrete work in walls (any thickness), including a and string courses, fillets, columns, pillars, piers, abutments, posts a excluding cost of centering, shuttering, finishing and reinforcement :1: 3 graded stone aggregate 20 mm nominal size)	nd struts etc. up tot floor five lev
	Net Total Quantity	3.795 cum
	Say 3.795 cum @ Rs 11433.93 / cum	Rs 43391.76
5	50.2.25.1 Filling with contractor's own earth (excluding rock) in trenches, plinth not exceeding 20 cm in depth, consolidating each deposited layer by 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge  Net Total Quantity	ramming and watering, lead up
	Say 48.600 cum @ Rs 548.85 / cum	Rs 26674.11
6	50.6.1.3 Solid block masonry using pre cast solid blocks (Factory made) of size size confirming to IS 2185 Part I of 1979 for super structure above thickness 20cm and above in: CM 1:6 (1 cement:6 coarse sand)	floor two level up to floor V lev
	Net Total Quantity	19.201 cum
	Say 19.201 cum @ Rs 7784.73 / cum	Rs 149474.60
7	13.7.2 12 mm cement plaster finished with a floating coat of neat cement of m	nix:1:4 ( 1 cement : 4 fine sand)
	Net Total Quantity	204.800 sqm
	Say 204.800 sqm @ Rs 403.29 / sqm	Rs 82593.79
8	50.10.1 Steel work in built up G I tubular ( round, square or rectangular hollow cutting, hoisting, fixing in position and applying a priming coat of approand bolted with special shaped washers etc. complete	·

2	100.12.8  Conveying and fixing G.I. pipes complete with G.I. fittings includir 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	
2	100.12.8	
	Cay 0.000 barri @ 113 +000.407 barri	13 321 41.20
	Say 8.000 cum @ Rs 4093.40 / cum	Rs 32747.20
	Net Total Quantity	8.000 cum
1	Excavating in hard rock for trenches by blasting for laying pipes a measurements and disposing unserviceable materials within the 1.50m(intial depth 0 m to 1.50m) and providing protection by earth fill avoid damages to nearby structures(200 Nos. of earth filled cement by (Ref. Item No. 1004 A of T C)	e intial lead of 50m and lift up ed cement bags during blasting
	GLSR- (b) Working charges (Cost Index:41.53	3 %)
20App	pendix B - (7) - Supplying and laying 80mm GI pumping main from su	mp at TP to Alady Kurisumala
	Kerala Water Authority Say 2.000 No @ Rs 5636.75 / No	Rs 11273.50
	Net Total Quantity	
4	100.98.440 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, S	Small Orifice Type S1, Size 25m
	Say 2.000 No @ Rs 5943.40 / No	Rs 11886.80
	Net Total Quantity	2.000 No
	Supply of CI Non Return Valve, Conforming to IS 5312 Part I - 1984, P	N 1.6, Size 80mm.
3	100.98.428	
	Say 1.000 set @ Rs 21417.90 / set	
	Net Total Quantity	1.000 set
2	od190323/2018_2019 Specials for 80mm GI pipe	
	Say 310.000 metre @ Rs 830.16 / metre	Rs 257349.60
	Net Total Quantity	310.000 metre
	Supply of 80mm GI pipe(m)	
1	od190319/2018 2019	3 70)
.0, .p	pendix B - (7) - Supplying and laying 80mm GI pumping main from su GLSR - (a) Cost of materials (Cost Index:41.5	•
19Anı	Say 61.621 kg @ Rs 198.21 / kg	Rs 12213.90
19 <b>A</b> nı		

	Say 310.000 metre @ Rs 217.74 / metre	Rs 67499.40
3	100.31.2.1 "Conveying and fixing C.I. sluice valves (with cap) by providing complinsertions etc. excluding the cost of valve (the tail pieces if required 80 mm diameter. Class II" Observed Data derived from item no.18.31.of DAR	
	Net Total Quantity 2.00	00 Nos
	Say 2.000 Nos @ Rs 652.74 / Nos	Rs 1305.48
4	100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality with be excluding the cost of air valve(the tail pieces if required will be paid sepera 25 mm Single acting Air Valve Observed Data derived from item no.18.59.of DAR	
	Net Total Quantity 2.00	00 Nos
	Say 2.000 Nos @ Rs 146.63 / Nos	Rs 293.26
	Reinforced cement concrete work in walls (any thickness), including attach	ned pilasters, buttresses, plin
	and string courses, fillets, columns, pillars, piers, abutments, posts and s excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3 graded stone aggregate 20 mm nominal size)	·
	excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3	3( 1 cement : 1.5 coarse san
	excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3 graded stone aggregate 20 mm nominal size)	3( 1 cement : 1.5 coarse san
6	excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3  3 graded stone aggregate 20 mm nominal size)  Net Total Quantity  4.55	3( 1 cement : 1.5 coarse san  77 cum  Rs 52104.42  nding, placing in position a
6	excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3 3 graded stone aggregate 20 mm nominal size)  Net Total Quantity 4.55  Say 4.557 cum @ Rs 11433.93 / cum  5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, being straightening.	3( 1 cement : 1.5 coarse san  7 cum  Rs 52104.42  Inding, placing in position a lars of grade Fe-500D or mo
6	excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3 3 graded stone aggregate 20 mm nominal size)  Net Total Quantity 4.55  Say 4.557 cum @ Rs 11433.93 / cum  5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, beinding all complete upto plinth levelThermo - Mechanically Treated ba	3( 1 cement : 1.5 coarse san  7 cum  Rs 52104.42  Inding, placing in position a lars of grade Fe-500D or mo
7	excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3 3 graded stone aggregate 20 mm nominal size)  Net Total Quantity 4.55  Say 4.557 cum @ Rs 11433.93 / cum  5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, beinding all complete upto plinth levelThermo - Mechanically Treated bath Net Total Quantity 227	Rs 52104.42  Inding, placing in position a ars of grade Fe-500D or mo
	excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3 3 graded stone aggregate 20 mm nominal size)  Net Total Quantity 4.55  Say 4.557 cum @ Rs 11433.93 / cum  5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, beinding all complete upto plinth levelThermo - Mechanically Treated bath Net Total Quantity 227  Say 227.851 kilogram @ Rs 102.61 / kilogram  5.9.1 Centering and shuttering including strutting, etc. and removal of form for:F	Rs 52104.42  Inding, placing in position a ars of grade Fe-500D or mo  Rs 23379.79  Foundations, footings, bases
	excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3 3 graded stone aggregate 20 mm nominal size)  Net Total Quantity 4.55  Say 4.557 cum @ Rs 11433.93 / cum  5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, beinding all complete upto plinth levelThermo - Mechanically Treated bath Net Total Quantity  Say 227.851 kilogram @ Rs 102.61 / kilogram  5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Facolumns, etc for mass concrete	Rs 52104.42  Inding, placing in position a ars of grade Fe-500D or mo  Rs 23379.79  Foundations, footings, bases
	excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3 3 graded stone aggregate 20 mm nominal size)  Net Total Quantity  Say 4.557 cum @ Rs 11433.93 / cum  5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, beinding all complete upto plinth levelThermo - Mechanically Treated bath Net Total Quantity  Say 227.851 kilogram @ Rs 102.61 / kilogram  5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Fixed columns, etc for mass concrete  Net Total Quantity  40.5	Rs 52104.42  Inding, placing in position and ars of grade Fe-500D or model. 851 kilogram  Rs 23379.79  Foundations, footings, bases  500 sqm  Rs 14175.00
7	excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3 3 graded stone aggregate 20 mm nominal size)  Net Total Quantity 4.56  Say 4.557 cum @ Rs 11433.93 / cum  5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bereinding all complete upto plinth levelThermo - Mechanically Treated bath Net Total Quantity 227  Say 227.851 kilogram @ Rs 102.61 / kilogram  5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Ficolumns, etc for mass concrete  Net Total Quantity 40.5  Say 40.500 sqm @ Rs 350.00 / sqm  od1153/2019_2020  DOWEL BARS - Supplying and providing MS dowel bars of size 16 mm of 1m in concrete ) including drilling holes of 20mm dia to a depth of 1m in 1.5.5.	Rs 52104.42  Inding, placing in position and ars of grade Fe-500D or model.851 kilogram  Rs 23379.79  Foundations, footings, bases  500 sqm  Rs 14175.00  Idia of 2m long (1m in rock and rock and filling the gap with the gap wi

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.
	Net Total Quantity 45.000 No
	Say 45.000 No @ Rs 468.28 / No Rs 21072.60
	21Appendix B - (8)- Line charging, stabilization& interconnection (Cost Index:41.53 %)
	No Specifications added under this Estimate
22App	endix B - (8)- Line charging, stabilization& interconnection - (a) Interconnection work of Distribution  Zone I from T P sump using 200 mm D I K9 Pipe (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 consolidatingeach
	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)
	Net Total Quantity 67.200 cum
	Say 67.200 cum @ Rs 579.85 / cum Rs 38965.92
2	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)
	Net Total Quantity 19.201 cum
	Say 19.201 cum @ Rs 842.10 / cum Rs 16169.16
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 m2 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.
	New Bata delived from No.2.3.2 of BAN.
	Net Total Quantity 6.721 cum

4	100.1.13	
	"Excavating trenches of required width for pipes, cables, etc inclu	•
	dressing of sides, ramming of bottoms, depth up to 1.5 m, including	
	then returning the soil as required, in layers not exceeding 20 cm in deposited layer by remaining watering, etc. and disposing of surplus of	
	deposited layer by ramming, watering, etc. and disposing of surplus elead of 50 m:	excavated soil as directed, within a
	Hard Rock(Blasting Prohibited)	
	(Ref. Item No. 2.13.3 0f DSR)	
	Net Total Quantity	2 880 cum
	Say 2.880 cum @ Rs 1624.48 / cum	
5	100.8.1	
J	Fencing one side of trenches, 1.50 m height with two rows of 10 c	cm plastic caution tape in vertical
	casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals.	on placific causes tape in terrior.
	(Data Prepared based on PWD SDB - Item No.1009)	
	Net Total Quantity	100.000 metre
	Say 100.000 metre @ Rs 28.82 / metre	Rs 2882.00
6	50.2.25.1	
Ü	Filling with contractor's own earth ( excluding rock) in trenches, plinth	sides of foundations etc. in lavers
	not exceeding 20 cm in depth, consolidating each deposited layer by	
	50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	
	Net Total Quantity	5.000 cum
	Say 5.000 cum @ Rs 548.85 / cum	Rs 2744.25
7	100.14.3	
,	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iro	on Pines conforming to IS: 8329
	excluding cost of pipes and specials:	in the sementing to let core
	200 mm dia Ductile Iron Class K-9 Pipes	
	Data derived from 18.72.17 in DAR	
	Net Total Quantity	100.000 metre
	Say 100.000 metre @ Rs 127.45 / metre	Rs 12745.00
8	18.70.3	
Ū	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Du	uctile Iron Pipes including testing of
	joints and including the cost of rubber gasket:200 mm dia pipes	, , , , , , , , , , , , , , , , , , , ,
	Net Total Quantity	20.000 joint
	Say 20.000 joint @ Rs 270.11 / joint	-
9	18.30.5	1 2 2 2
IJ	Providing flanged joints to double flanged C.I./ D.I pipes and specials	including testing of joints:200 mm
	diameter pipe	, morading tooting or jointo.200 IIIII
	Net Total Quantity	3.000 Nos
	Say 3.000 Nos @ Rs 436.83 / Nos	Rs 1310.49
	22, 2230 2	

10	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mecha 300 mm dia	nical jointing as per IS 13382:Upto
	Net Total Quantity	0.960 quintal
	Say 0.960 quintal @ Rs 14708.65 / quintal	Rs 14120.30
11	18.25.1 Providing and laying S & S C.I standard specials such as tees, benderlass):Upto 300 mm dia	s, collars, tapers, caps etc. (Heavy
	Net Total Quantity	0.930 quintal
	Say 0.930 quintal @ Rs 6536.99 / quintal	Rs 6079.40
12	18.83.5 Labour for cutting C.I. pipe with steel saw.200 mm diameter C.I. pipe	
	Net Total Quantity	7.000 Each Cut
	Say 7.000 Each Cut @ Rs 449.57 / Each Cut	Rs 3146.99
13	100.35.3 Testing 200mm DI/CI pipeline with potable water to the required test potable many dia Observed Data derived from item no.1020 of PHED DATA	ressure
	Net Total Quantity	100.000 metre
	Say 100.000 metre @ Rs 41.56 / metre	Rs 4156.00
14	4.1.3 Providing and laying in position cement concrete of specified grade a shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)	
	Net Total Quantity	3.000 cum
	Say 3.000 cum @ Rs 8340.93 / cum	Rs 25022.79
15	5.9.1 Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete	for:Foundations, footings, bases o
	Net Total Quantity	12.000 sqm
	Say 12.000 sqm @ Rs 350.00 / sqm	Rs 4200.00
16	100.31.1.5 "Conveying and fixing C.I. sluice valves (with cap) by providing of insertions etc. excluding the cost of valve (the tail pieces if requience 200 mm diameter. Class I"  Data derived from item no.18.31.4.1 of DAR	•
	Net Total Quantity	1.000 Nos
	Say 1.000 Nos @ Rs 1625.90 / Nos	
	,	

17	100.32.3  Conveying and fixing C I Single acting Air Valve of approved quality w excluding the cost of air valve(the tail pieces if required will be paid se 50 mm Double acting Air Valve  Data derived from item no.18.59.1 of DAR	
	Net Total Quantity	2 000 Nos
	Say 2.000 Nos @ Rs 229.21 / Nos	Rs 458.42
18	od190175/2018_2019 Construction of RCC valve chamber of size 1mx1mx1m -cost excavat base,125mm side wall,150mm bottom and cover slab of chamber with including plastering inside and out side of wall.etc.complete.including	ion work,75mm thick M10 concrete n M20 concrete with reinforcement
	Net Total Quantity	1.000 No
	Say 1.000 No @ Rs 42076.66 / No	Rs 42076.66
19	100.98.117 Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.	
	Net Total Quantity	100.000 metre
	Say 100.000 metre @ Rs 2589.08 / metre	Rs 258908.00
20	100.98.435 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Kinetic Air Valv	e Type DK, Size 50mm.
	Net Total Quantity	2.000 No
	Kerala Water Authority Say 2.000 No @ Rs 7951.65 / No	Rs 15903.30
21	100.98.461 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2 Size 200mm.	000, Sluice Valve with Cap PN 1.6
	Net Total Quantity	1.000 No
	Say 1.000 No @ Rs 23723.65 / No	Rs 23723.65
23Ap <sub>l</sub>	pendix B - (8)- Line charging, stabilization& interconnection- (b) Inte Marykulam using 80 mm G I pipe (Cost Index:4	
1	100.12.8 Conveying and fixing G.I. pipes complete with G.I. fittings includir 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	
	Net Total Quantity	250.000 metre
	Say 250.000 metre @ Rs 217.74 / metre	Rs 54435.00

2	100.31.1.1	
2	"Conveying and fixing C.I. sluice valves (with cap) by providing of	complete with holts nuts rubber
	insertions etc. excluding the cost of valve (the tail pieces if required	•
	diameter. Class I"	, , , , , , , , , , , , , , , , , , , ,
	Observed Data derived from item no.18.31.of DAR	
	Net Total Quantity	1.000 Nos
	Say 1.000 Nos @ Rs 613.74 / Nos	Rs 613.74
3	od190319/2018_2019	
	Supply of 80mm GI pipe(m)	
	Net Total Quantity	250.000 metre
	Say 250.000 metre @ Rs 830.16 / metre	Rs 207540.00
4	od3655/2019_2020	
	Specials for 80 mm GI(m) pipe - 10 % of value of pipe supply.	
	Net Total Quantity	1.000 set
	Say 1.000 set @ Rs 17272.50 / set	Rs 17272.50
5	100.98.457	
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2	000, Sluice Valve with Cap PN 1.6
	Size 80mm.	5
	Net Total Quantity	1.000 No
	Say 1.000 No @ Rs 6624.05 / No	Rs 6624.05
24App	endix B - (8)- Line charging, stabilization& interconnection - (c)- Inter	connection work to Labbakada
	Tank using 150 mm D I K9 Pipe for Pumping main (Cost	Index:41.53 %)
1	100.1.1	_
	Excavating trenches of required width for pipes, cables, etc inclu-	ding excavation for sockets, and
	dressing of sides, ramming of bottoms, depth up to 1.5 m, including of	getting out the excavated soil, and
	then returning the soil as required, in layers not exceeding 20 cm in o	,
	deposited layer by ramming, watering, etc. and disposing of surplus e	excavated soil as directed, within a
	lead of 50 m: All kinds of soil	
	(Ref. Item No. 2.10.1 of DSR)	
	Net Total Quantity	115.920 cum
	Say 115.920 cum @ Rs 579.85 / cum	Rs 67216.21
	Jay 110.320 cuiii @ NS 5/3.65/ cuiii	1/3 0/210.21

2	100.1.5  Excavating trenches of required width for pipes, cables, etc included dressing of sides, ramming of bottoms, depth up to 1.5 m, including then returning the soil as required, in layers not exceeding 20 cm in deposited layer by ramming, watering, etc. and disposing of surplus of lead of 50 m:  Ordinary Rock.  (Ref. Item No. 2.13.1 of DSR)	getting out the excavated soil, and depth, including consolidatingeach
	Net Total Quantity	33.120 cum
	Say 33.120 cum @ Rs 842.10 / cum	
3	100.2.1 Excavation work by mechanical means (Hydraulic excavator) / manual drains (not exceeding 1.5 m in width or 10 m2 on plan), including bottoms, lift up to 1.5 m, including getting out the excavated soil and as directed, within a lead of 50 m. Medium Rock (Requiring Blasting) New Data derived from Item No.2.9.2 of DAR.	dressing of sides and ramming o
	Net Total Quantity	11.592 cum
	Say 11.592 cum @ Rs 749.12 / cum	No.
4	"Excavating trenches of required width for pipes, cables, etc includressing of sides, ramming of bottoms, depth up to 1.5 m, including then returning the soil as required, in layers not exceeding 20 cm in deposited layer by ramming, watering, etc. and disposing of surplus elead of 50 m:  Hard Rock(Blasting Prohibited)  (Ref. Item No. 2.13.3 of DSR)	getting out the excavated soil, and depth, including consolidatingeach
	Net Total Quantity	4.968 cum
	Say 4.968 cum @ Rs 1624.48 / cum	Rs 8070.42
5	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 c casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals. (Data Prepared based on PWD SDB - Item No.1009)	
	Net Total Quantity	180.000 metre
	·	II
	Say 180.000 metre @ Rs 28.82 / metre	Rs 5187.60
6	Say 180.000 metre @ Rs 28.82 / metre  50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth not exceeding 20 cm in depth, consolidating each deposited layer by 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	, sides of foundations etc. in layers
6	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth not exceeding 20 cm in depth, consolidating each deposited layer by	, sides of foundations etc. in laye ramming and watering, lead up

	Say 5.000 cum @ Rs 548.85 / cum	Rs 2744.25
7	100.14.2 Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iro excluding cost of pipes and specials: 150 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.16 in DAR	on Pipes conforming to IS: 8
	Net Total Quantity	180.000 metre
	Say 180.000 metre @ Rs 91.50 / metre	Rs 16470.00
8	18.70.2  Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Dujoints and including the cost of rubber gasket:150 mm dia pipes	uctile Iron Pipes including testin
	Net Total Quantity	28.000 joint
	Say 28.000 joint @ Rs 184.13 / joint	Rs 5155.64
9	18.30.4 Providing flanged joints to double flanged C.I./ D.I pipes and specials, diameter pipe	including testing of joints:150
	Net Total Quantity	7.000 Nos
	Say 7.000 Nos @ Rs 402.30 / Nos	Rs 2816.10
10	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mecha 300 mm dia  Kerala Water Authority	nical jointing as per IS 13382:L
10	Providing and laying S & S C.I. Standard specials suitable for mechan	-
10	Providing and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying S & S C.I. Standard specials suitable for mechanges and laying specials specials specials special specia	0.310 quintal
11	Providing and laying S & S C.I. Standard specials suitable for mechanges and laying special s	0.310 quintal  Rs 4559.68
	Providing and laying S & S C.I. Standard specials suitable for mechang 300 mm dia  Net Total Quantity  Say 0.310 quintal @ Rs 14708.65 / quintal  18.66.1  Providing and laying S&S.C.I Standard specials such as tees, ber	0.310 quintal  Rs 4559.68  nds, collars tapers and caps e
	Providing and laying S & S C.I. Standard specials suitable for mechang 300 mm dia  Net Total Quantity  Say 0.310 quintal @ Rs 14708.65 / quintal  18.66.1  Providing and laying S&S.C.I Standard specials such as tees, ber suitable for flanged jointing as per IS: 1538:UPto 300 mm dia	0.310 quintal  Rs 4559.68  nds, collars tapers and caps e
11	Providing and laying S & S C.I. Standard specials suitable for mechang 300 mm dia  Net Total Quantity  Say 0.310 quintal @ Rs 14708.65 / quintal  18.66.1  Providing and laying S&S.C.I Standard specials such as tees, ber suitable for flanged jointing as per IS: 1538:UPto 300 mm dia  Net Total Quantity	0.310 quintal  Rs 4559.68  ands, collars tapers and caps e
11	Providing and laying S & S C.I. Standard specials suitable for mechan 300 mm dia  Net Total Quantity  Say 0.310 quintal @ Rs 14708.65 / quintal  18.66.1  Providing and laying S&S.C.I Standard specials such as tees, ber suitable for flanged jointing as per IS: 1538:UPto 300 mm dia  Net Total Quantity  Say 2.120 quintal @ Rs 9150.76 / quintal	0.310 quintal  Rs 4559.68  ands, collars tapers and caps e  2.120 quintal  Rs 19399.61
	Providing and laying S & S C.I. Standard specials suitable for mechan 300 mm dia  Net Total Quantity  Say 0.310 quintal @ Rs 14708.65 / quintal  18.66.1  Providing and laying S&S.C.I Standard specials such as tees, ber suitable for flanged jointing as per IS: 1538:UPto 300 mm dia  Net Total Quantity  Say 2.120 quintal @ Rs 9150.76 / quintal  18.83.4  Labour for cutting C.I. pipe with steel saw.150 mm diameter C.I. pipe	0.310 quintal  Rs 4559.68  ands, collars tapers and caps e  2.120 quintal  Rs 19399.61  8.000 Each Cut
11	Providing and laying S & S C.I. Standard specials suitable for mechan 300 mm dia  Net Total Quantity  Say 0.310 quintal @ Rs 14708.65 / quintal  18.66.1  Providing and laying S&S.C.I Standard specials such as tees, ber suitable for flanged jointing as per IS: 1538:UPto 300 mm dia  Net Total Quantity  Say 2.120 quintal @ Rs 9150.76 / quintal  18.83.4  Labour for cutting C.I. pipe with steel saw.150 mm diameter C.I. pipe  Net Total Quantity	0.310 quintal  Rs 4559.68  ands, collars tapers and caps of the collars tapers and caps of th

	Say 180.000 metre @ Rs 32.88 / metre	Rs 5918.40
14	100.98.116	
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 150mm Dia.	
	Net Total Quantity	180.000 metre
	Say 180.000 metre @ Rs 1890.44 / metre	Rs 340279.20
5Appe	endix B - (8)- Line charging, stabilization& interconnection - (d) Interconnection - (d) Interconnection - (Cost Inc	connection work to distribution lex:41.53 %)
1	100.1.1  Excavating trenches of required width for pipes, cables, etc included ressing of sides, ramming of bottoms, depth up to 1.5 m, including of then returning the soil as required, in layers not exceeding 20 cm in deposited layer by ramming, watering, etc. and disposing of surplus elead of 50 m:  All kinds of soil  (Ref. Item No. 2.10.1 of DSR)	getting out the excavated soil, a depth, including consolidatingea
	Net Total Quantity	67.200 cum
	Say 67.200 cum @ Rs 579.85 / cum	
	Oay 07.200 cum @ 13 373.037 cum	Rs 38965.92
2	100.1.5  Excavating trenches of required width for pipes, cables, etc included ressing of sides, ramming of bottoms, depth up to 1.5 m, including of then returning the soil as required, in layers not exceeding 20 cm in deposited layer by ramming, watering, etc. and disposing of surplus elead of 50 m:  Ordinary Rock.  (Ref. Item No. 2.13.1 of DSR)	ding excavation for sockets, a getting out the excavated soil, a depth, including consolidatingea
2	100.1.5 Excavating trenches of required width for pipes, cables, etc included ressing of sides, ramming of bottoms, depth up to 1.5 m, including of then returning the soil as required, in layers not exceeding 20 cm in deposited layer by ramming, watering, etc. and disposing of surplus elead of 50 m:"  Ordinary Rock.	ding excavation for sockets, a getting out the excavated soil, a depth, including consolidatinges excavated soil as directed, within
2	Excavating trenches of required width for pipes, cables, etc included ressing of sides, ramming of bottoms, depth up to 1.5 m, including of then returning the soil as required, in layers not exceeding 20 cm in deposited layer by ramming, watering, etc. and disposing of surplus elead of 50 m:"  Ordinary Rock.  (Ref. Item No. 2.13.1 of DSR)	ding excavation for sockets, a getting out the excavated soil, a depth, including consolidatinges excavated soil as directed, within
3	100.1.5  Excavating trenches of required width for pipes, cables, etc included ressing of sides, ramming of bottoms, depth up to 1.5 m, including of then returning the soil as required, in layers not exceeding 20 cm in deposited layer by ramming, watering, etc. and disposing of surplus elead of 50 m:  Ordinary Rock.  (Ref. Item No. 2.13.1 of DSR)	ding excavation for sockets, a getting out the excavated soil, a depth, including consolidatingea excavated soil as directed, within 19.201 cum  Rs 16169.16  al means in foundation trenches dressing of sides and ramming
	100.1.5  Excavating trenches of required width for pipes, cables, etc includerssing of sides, ramming of bottoms, depth up to 1.5 m, including of then returning the soil as required, in layers not exceeding 20 cm in deposited layer by ramming, watering, etc. and disposing of surplus elead of 50 m:  Ordinary Rock.  (Ref. Item No. 2.13.1 of DSR)  Net Total Quantity  Say 19.201 cum @ Rs 842.10 / cum  100.2.1  Excavation work by mechanical means (Hydraulic excavator) / manual drains (not exceeding 1.5 m in width or 10 m2 on plan), including of bottoms, lift up to 1.5 m, including getting out the excavated soil and of as directed, within a lead of 50 m.  Medium Rock (Requiring Blasting)	ding excavation for sockets, a getting out the excavated soil, a depth, including consolidating excavated soil as directed, withing 19.201 cum  Rs 16169.16  al means in foundation trenches dressing of sides and ramming disposal of surplus excavated so

4	100.1.13	
	"Excavating trenches of required width for pipes, cables, etc inclu	•
	dressing of sides, ramming of bottoms, depth up to 1.5 m, including	
	then returning the soil as required, in layers not exceeding 20 cm in	
	deposited layer by ramming, watering, etc. and disposing of surplus elead of 50 m:	excavated soil as directed, within a
	Hard Rock(Blasting Prohibited)	
	(Ref. Item No. 2.13.3 0f DSR)	
	Net Total Quantity	2 880 cum
	Say 2.880 cum @ Rs 1624.48 / cum	
5	100.8.1	110 401 0100
5	Fencing one side of trenches, 1.50 m height with two rows of 10 c	cm plastic caution tane in vertical
	casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals.	on plastic caution tape in vertical
	(Data Prepared based on PWD SDB - Item No.1009)	
	Net Total Quantity	100.000 metre
	Say 100.000 metre @ Rs 28.82 / metre	Rs 2882.00
6	50.2.25.1	
Ü	Filling with contractor's own earth ( excluding rock) in trenches, plinth	sides of foundations etc. in lavers
	not exceeding 20 cm in depth, consolidating each deposited layer by	
	50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	
	Net Total Quantity	5.000 cum
	Say 5.000 cum @ Rs 548.85 / cum	
7	100.14.4	
,	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iro	on Pines conforming to IS: 8329
	excluding cost of pipes and specials:	on the demonning to 16. 6626
	250 mm dia Ductile Iron Class K-9 Pipes	
	Data derived from 18.72.18 in DAR	
	Net Total Quantity	100.000 metre
	Say 100.000 metre @ Rs 170.19 / metre	Rs 17019.00
8	18.70.4	
Ü	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Du	uctile Iron Pines including testing of
	joints and including the cost of rubber gasket:250 mm dia pipes	
	Net Total Quantity	18 000 joint
	Say 18.000 joint @ Rs 329.84 / joint	-
		113 0301.112
9	18.30.6  Providing flanged joints to double flanged C.L./ D.L. pines and specials	including tooting of ininterOEO
	Providing flanged joints to double flanged C.I./ D.I pipes and specials diameter pipe	, including testing of joints:250 mm
	Net Total Quantity	5.000 Nos
	·	
	Say 5.000 Nos @ Rs 595.56 / Nos	Rs 2977.80

10	18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechan	sical jointing as par IS 12202:Unto
	300 mm dia	ilical jointing as per 13 13362.0ptc
	Net Total Quantity	0.720 quintal
	Say 0.720 quintal @ Rs 14708.65 / quintal	Rs 10590.23
11	18.66.1	de collere tenere and consecte
	Providing and laying S&S.C.I Standard specials such as tees, ben suitable for flanged jointing as per IS: 1538:UPto 300 mm dia	us, collais tapers and caps etc.
	Net Total Quantity	1.360 quintal
	Say 1.360 quintal @ Rs 9150.76 / quintal	Rs 12445.03
12	18.83.6 Labour for cutting C.I. pipe with steel saw.250 mm diameter C.I. pipe	
	Net Total Quantity	5.000 Each Cut
	Say 5.000 Each Cut @ Rs 559.11 / Each Cut	Rs 2795.55
13	100.35.4	
	Testing 250mm DI/CI pipeline with potable water to the required test pro-	essure .
	250 mm dia	
	Observed Data derived from item no.1022 of PHED DATA	
	Net Total Quantity	100.000 metre
	Say 100.000 metre @ Rs 52.99 / metre	Rs 5299.00
14	100.31.1.6 "Conveying and fixing C.I. sluice valves (with cap) by providing c insertions etc. excluding the cost of valve (the tail pieces if requi 250 mm diameter. Class I"  Data derived from item no.18.31.5.1 of DAR	·
	Net Total Quantity	1 000 Nos
	Say 1.000 Nos @ Rs 2304.82 / Nos	Rs 2304.82
15	100.32.3  Conveying and fixing C I Single acting Air Valve of approved quality wi excluding the cost of air valve(the tail pieces if required will be paid sep	
	50 mm Double acting Air Valve	Deratery).
	Data derived from item no.18.59.1 of DAR	
	Net Total Quantity	1.000 Nos
	Say 1.000 Nos @ Rs 229.21 / Nos	Rs 229.21
16	100.98.118 Supply of DI K9 Pipe Conforming to IS 8329/2000, 250mm Dia.	
	Net Total Quantity	100.000 metre
	Say 100.000 metre @ Rs 3616.52 / metre	Rs 361652.00
	,	

	100.98.462 Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2	000, Sluice Valve with Cap PN 1
	Size 250mm.	
	Net Total Quantity	1.000 No
	Say 1.000 No @ Rs 34361.80 / No	Rs 34361.80
18	100.98.444 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, I	Large Orifice Type S2, Size 50mr
	Net Total Quantity	1.000 No
	Say 1.000 No @ Rs 6110.65 / No	Rs 6110.65
26 A n	pendix B - (8)- Line charging, stabilization& interconnection - (e) Inte	
zoAp	Gravity main using 125 mm G l pipe (Cost Index:	
1	100.12.10	,
	"Conveying and fixing G.I. pipes complete with G.I. fittings including excluding cost of pipes and fittings - External work.  125 mm dia nominal bore  Observed Data derived from item no.18.12 of DAR	
	Net Total Quantity	100.000 metre
	Say 100.000 metre @ Rs 274.99 / metre	Rs 27499.00
	Providing and laying in position cement concrete of specified grade e	
	shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)  Net Total Quantity	4 graded stone aggregate 20 n
	shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)	4 graded stone aggregate 20 n
3	shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)  Net Total Quantity	4 graded stone aggregate 20 r 2.049 cum Rs 17090.57
3	shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)  Net Total Quantity  Say 2.049 cum @ Rs 8340.93 / cum  5.9.1  Centering and shuttering including strutting, etc. and removal of form	4 graded stone aggregate 20 n  2.049 cum  Rs 17090.57  for:Foundations, footings, bases
3	shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)  Net Total Quantity  Say 2.049 cum @ Rs 8340.93 / cum  5.9.1  Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete  Net Total Quantity	4 graded stone aggregate 20 n  2.049 cum  Rs 17090.57  for:Foundations, footings, bases
3	shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)  Net Total Quantity  Say 2.049 cum @ Rs 8340.93 / cum  5.9.1  Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete	4 graded stone aggregate 20 m  2.049 cum  Rs 17090.57  for:Foundations, footings, bases  10.241 sqm
	shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)  Net Total Quantity  Say 2.049 cum @ Rs 8340.93 / cum  5.9.1  Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete  Net Total Quantity  Say 10.241 sqm @ Rs 350.00 / sqm  od189995/2018_2019	4 graded stone aggregate 20 r  2.049 cum  Rs 17090.57  for:Foundations, footings, bases  10.241 sqm  Rs 3584.35
	shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)  Net Total Quantity  Say 2.049 cum @ Rs 8340.93 / cum  5.9.1  Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete  Net Total Quantity  Say 10.241 sqm @ Rs 350.00 / sqm  od189995/2018_2019  Supplying 125mm GI(m) pipe	4 graded stone aggregate 20 m  2.049 cum  Rs 17090.57  for:Foundations, footings, bases  10.241 sqm  Rs 3584.35
	shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)  Net Total Quantity  Say 2.049 cum @ Rs 8340.93 / cum  5.9.1  Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete  Net Total Quantity  Say 10.241 sqm @ Rs 350.00 / sqm  od189995/2018_2019  Supplying 125mm GI(m) pipe  Net Total Quantity  Say 100.000 metre @ Rs 1434.45 / metre  od3663/2019_2020	4 graded stone aggregate 20 m  2.049 cum  Rs 17090.57  for:Foundations, footings, bases  10.241 sqm  Rs 3584.35
4	shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)  Net Total Quantity  Say 2.049 cum @ Rs 8340.93 / cum  5.9.1  Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete  Net Total Quantity  Say 10.241 sqm @ Rs 350.00 / sqm  od189995/2018_2019  Supplying 125mm GI(m) pipe  Net Total Quantity  Say 100.000 metre @ Rs 1434.45 / metre  od3663/2019_2020  Specials for 125 mm GI(m) pipe - 10 % of value of pipe supply.	4 graded stone aggregate 20 m  2.049 cum  Rs 17090.57  for:Foundations, footings, bases  10.241 sqm  Rs 3584.35  100.000 metre  Rs 143445.00
4	shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)  Net Total Quantity  Say 2.049 cum @ Rs 8340.93 / cum  5.9.1  Centering and shuttering including strutting, etc. and removal of form columns, etc for mass concrete  Net Total Quantity  Say 10.241 sqm @ Rs 350.00 / sqm  od189995/2018_2019  Supplying 125mm GI(m) pipe  Net Total Quantity  Say 100.000 metre @ Rs 1434.45 / metre  od3663/2019_2020	4 graded stone aggregate 20 r  2.049 cum  Rs 17090.57  for:Foundations, footings, bases  10.241 sqm  Rs 3584.35  100.000 metre  Rs 143445.00

## 27Appendix B - (8)- Line charging, stabilization& interconnection - (f) Interconnection work to Distribution from Kochuthovala G L tank using 200 mm D I pipe (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 consolidatingeach 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) Net Total Quantity 67.200 cum Say 67.200 cum @ Rs 579.85 / cum Rs 38965.92 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 consolidatingeach 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) Net Total Quantity 19.201 cum Rs 16169.16 Say 19.201 cum @ Rs 842.10 / cum 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 m2 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. Net Total Quantity 6.721 cum Say 6.721 cum @ Rs 749.12 / cum Rs 5034.84 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 consolidatingeach 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) Net Total Quantity 2.880 cum Say 2.880 cum @ Rs 1624.48 / cum Rs 4678.50

5	100.9.1	
Ū	100.8.1 Fencing one side of trenches, 1.50 m height with two rows of 10 c	em plastic caution tand in vertic
	casuarina pole (girth 15cm to 24cm) fixed at 2 m intervals.	on plastic caution tape in vertice
	(Data Prepared based on PWD SDB - Item No.1009)	
	Net Total Quantity	100.000 metre
	Say 100.000 metre @ Rs 28.82 / metre	Rs 2882.00
6	50.2.25.1	
	Filling with contractor's own earth (excluding rock) in trenches, plinth,	sides of foundations etc. in lave
	not exceeding 20 cm in depth, consolidating each deposited layer by	·
	50 m and lift up to 1.5 m as per direction of site Engineer-in-charge	, , , , , , , , , , , , , , , , , , ,
	Net Total Quantity	5.000 cum
	Say 5.000 cum @ Rs 548.85 / cum	Rs 2744.25
7	100.14.3	
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iro	on Pipes conforming to IS: 83
	excluding cost of pipes and specials :	
	200 mm dia Ductile Iron Class K-9 Pipes	
	Data derived from 18.72.17 in DAR	
	Net Total Quantity	100.000 metre
	Say 100.000 metre @ Rs 127.45 / metre	Rs 12745.00
8	18.70.3	
Ü	10.7 0.0	
	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Du	uctile Iron Pipes including testing
	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Du joints and including the cost of rubber gasket:200 mm dia pipes	uctile Iron Pipes including testing
	TROTAIN WELL TRADITOTICY	
	joints and including the cost of rubber gasket:200 mm dia pipes	
9	joints and including the cost of rubber gasket:200 mm dia pipes  Net Total Quantity  Say 18.000 joint @ Rs 270.11 /-joint	18.000 joint
9	joints and including the cost of rubber gasket:200 mm dia pipes  Net Total Quantity  Say 18.000 joint @ Rs 270.11 / joint  18.30.5	18.000 joint  Rs 4861.98
9	joints and including the cost of rubber gasket:200 mm dia pipes  Net Total Quantity  Say 18.000 joint @ Rs 270.11 /-joint	18.000 joint  Rs 4861.98
9	joints and including the cost of rubber gasket:200 mm dia pipes  Net Total Quantity  Say 18.000 joint @ Rs 270.11 / joint  18.30.5  Providing flanged joints to double flanged C.I./ D.I pipes and specials	18.000 joint  Rs 4861.98  including testing of joints:200 n
9	joints and including the cost of rubber gasket:200 mm dia pipes  Net Total Quantity  Say 18.000 joint @ Rs 270.11 / joint  18.30.5  Providing flanged joints to double flanged C.I./ D.I pipes and specials diameter pipe	18.000 joint  Rs 4861.98  including testing of joints:200 n
	joints and including the cost of rubber gasket:200 mm dia pipes  Net Total Quantity  Say 18.000 joint @ Rs 270.11 / joint  18.30.5  Providing flanged joints to double flanged C.I./ D.I pipes and specials diameter pipe  Net Total Quantity  Say 4.000 Nos @ Rs 436.83 / Nos	18.000 joint  Rs 4861.98  including testing of joints:200 n
9	joints and including the cost of rubber gasket:200 mm dia pipes  Net Total Quantity  Say 18.000 joint @ Rs 270.11 / joint  18.30.5  Providing flanged joints to double flanged C.I./ D.I pipes and specials diameter pipe  Net Total Quantity  Say 4.000 Nos @ Rs 436.83 / Nos  18.67.1	Rs 4861.98 including testing of joints:200 n 4.000 Nos Rs 1747.32
	joints and including the cost of rubber gasket:200 mm dia pipes  Net Total Quantity  Say 18.000 joint @ Rs 270.11 / joint  18.30.5  Providing flanged joints to double flanged C.I./ D.I pipes and specials diameter pipe  Net Total Quantity  Say 4.000 Nos @ Rs 436.83 / Nos	Rs 4861.98 including testing of joints:200 n 4.000 Nos Rs 1747.32
	joints and including the cost of rubber gasket:200 mm dia pipes  Net Total Quantity  Say 18.000 joint @ Rs 270.11 / joint  18.30.5  Providing flanged joints to double flanged C.I./ D.I pipes and specials diameter pipe  Net Total Quantity  Say 4.000 Nos @ Rs 436.83 / Nos  18.67.1  Providing and laying S & S C.I. Standard specials suitable for mechan	Rs 4861.98  including testing of joints:200 n  4.000 Nos  Rs 1747.32  nical jointing as per IS 13382:Up
	joints and including the cost of rubber gasket:200 mm dia pipes  Net Total Quantity  Say 18.000 joint @ Rs 270.11 / joint  18.30.5  Providing flanged joints to double flanged C.I./ D.I pipes and specials diameter pipe  Net Total Quantity  Say 4.000 Nos @ Rs 436.83 / Nos  18.67.1  Providing and laying S & S C.I. Standard specials suitable for mechal 300 mm dia	Rs 4861.98  including testing of joints:200 n  4.000 Nos  Rs 1747.32  nical jointing as per IS 13382:Up
10	joints and including the cost of rubber gasket:200 mm dia pipes  Net Total Quantity  Say 18.000 joint @ Rs 270.11 / joint  18.30.5  Providing flanged joints to double flanged C.I./ D.I pipes and specials diameter pipe  Net Total Quantity  Say 4.000 Nos @ Rs 436.83 / Nos  18.67.1  Providing and laying S & S C.I. Standard specials suitable for mechal 300 mm dia  Net Total Quantity  Say 0.540 quintal @ Rs 14708.65 / quintal	Rs 4861.98  including testing of joints:200 n  4.000 Nos  Rs 1747.32  nical jointing as per IS 13382:U
	joints and including the cost of rubber gasket:200 mm dia pipes  Net Total Quantity  Say 18.000 joint @ Rs 270.11 / joint  18.30.5  Providing flanged joints to double flanged C.I./ D.I pipes and specials diameter pipe  Net Total Quantity  Say 4.000 Nos @ Rs 436.83 / Nos  18.67.1  Providing and laying S & S C.I. Standard specials suitable for mechal 300 mm dia  Net Total Quantity  Say 0.540 quintal @ Rs 14708.65 / quintal	Rs 4861.98  Including testing of joints:200 r  4.000 Nos  Rs 1747.32  Inical jointing as per IS 13382:U  0.540 quintal  Rs 7942.67
10	joints and including the cost of rubber gasket:200 mm dia pipes  Net Total Quantity  Say 18.000 joint @ Rs 270.11 / joint  18.30.5 Providing flanged joints to double flanged C.I./ D.I pipes and specials diameter pipe  Net Total Quantity  Say 4.000 Nos @ Rs 436.83 / Nos  18.67.1 Providing and laying S & S C.I. Standard specials suitable for mechal 300 mm dia  Net Total Quantity  Say 0.540 quintal @ Rs 14708.65 / quintal  18.66.1 Providing and laying S&S.C.I Standard specials such as tees, ber	Rs 4861.98  A including testing of joints:200 m  4.000 Nos  Rs 1747.32  Inical jointing as per IS 13382:Up  0.540 quintal  Rs 7942.67
10	joints and including the cost of rubber gasket:200 mm dia pipes  Net Total Quantity  Say 18.000 joint @ Rs 270.11 / joint  18.30.5  Providing flanged joints to double flanged C.I./ D.I pipes and specials diameter pipe  Net Total Quantity  Say 4.000 Nos @ Rs 436.83 / Nos  18.67.1  Providing and laying S & S C.I. Standard specials suitable for mechal 300 mm dia  Net Total Quantity  Say 0.540 quintal @ Rs 14708.65 / quintal	Rs 4861.98  A including testing of joints:200 m  4.000 Nos  Rs 1747.32  Inical jointing as per IS 13382:Up  0.540 quintal  Rs 7942.67  Inds, collars tapers and caps er

	Say 1.960 quintal @ Rs 9150.76 / quintal	Rs 17935.49
12	18.83.5	
	Labour for cutting C.I. pipe with steel saw.200 mm diameter C.I. pipe	
	Net Total Quantity	5.000 Each Cut
	Say 5.000 Each Cut @ Rs 449.57 / Each Cut	Rs 2247.85
13	100.35.3 Testing 200mm DI/CI pipeline with potable water to the required test pr 200 mm dia Observed Data derived from item no.1020 of PHED DATA	essure
	Net Total Quantity	100.000 metre
	Say 100.000 metre @ Rs 41.56 / metre	Rs 4156.00
14	4.1.3 Providing and laying in position cement concrete of specified grade e shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : nominal size)	<u> </u>
	Net Total Quantity	4.000 cum
	Say 4.000 cum @ Rs 8340.93 / cum	Rs 33363.72
15	5.9.1 Centering and shuttering including strutting, etc. and removal of form to columns, etc for mass concrete  Kerala Water Authority Net Total Quantity	·
	Say 16.000 sqm @ Rs 350.00 / sqm	Rs 5600.00
16	od192891/2018_2019  Construction of RCC valve chamber of size 1mx1mx1.4 m cost of concrete base,150 mm side wall,150mm bottom and cover slab of reinforcement including plastering inside and out side of wall.etc.co	chamber with M20 concrete w
	Net Total Quantity	1.000 No
	Say 1.000 No @ Rs 42969.05 / No	Rs 42969.05
17	100.31.1.5 "Conveying and fixing C.I. sluice valves (with cap) by providing conversions etc. excluding the cost of valve (the tail pieces if requies 200 mm diameter. Class I"  Data derived from item no.18.31.4.1 of DAR	•
	Net Total Quantity	1.000 Nos
	Say 1.000 Nos @ Rs 1625.90 / Nos	Rs 1625.90
	Cay 1.000 1103 @ 113 1020.90 / 1103	113 1020.00

18	100.32.1 Conveying and fixing C I Single acting Air Valve of approved quality w excluding the cost of air valve(the tail pieces if required will be paid se	
	25 mm Single acting Air Valve	
	Observed Data derived from item no.18.59.of DAR	
	Net Total Quantity	1.000 Nos
	Say 1.000 Nos @ Rs 146.63 / Nos	Rs 146.63
19	100.98.117	
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.	
	Net Total Quantity	100.000 metre
	Say 100.000 metre @ Rs 2589.08 / metre	Rs 258908.00
20	100.98.461	
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2 Size 200mm.	000, Sluice Valve with Cap PN 1.6
	Net Total Quantity	1.000 No
	Say 1.000 No @ Rs 23723.65 / No	Rs 23723.65
21	100.98.440	<u>.                                    </u>
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice,	Small Orifice Type S1, Size 25mm.
	Net Total Quantity	1.000 No
	Say 1.000 No @ Rs 5636.75 / No	Rs 5636.75
28Appe	ndix B - (8)- Line charging, stabilization& interconnection- (g) Interco	1
1	100.12.10	1
'	"Conveying and fixing G.I. pipes complete with G.I. fittings including	ng trenching and refilling etc. but
	excluding cost of pipes and fittings - External work.	gggg
	125 mm dia nominal bore	
	Observed Data derived from item no.18.12 of DAR	
	Net Total Quantity	950.000 metre
	Say 950.000 metre @ Rs 274.99 / metre	Rs 261240.50
2	15.2.1	
	Demolishing cement concrete manually / by mechanical means inclu	ding disposal of material within 50
	metres lead as per direction of Engineer - in-Charge.Nominal concrete design mix)	e 1:3:6 or richer mix (i/c equivalen
	Net Total Quantity	90.000 cum
	Say 90.000 cum @ Rs 2134.72 / cum	Rs 192124.80
	•	

3	4.1.3	
	Providing and laying in position cement concrete of specified grade exc shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 nominal size)	•
	Net Total Quantity 94	4.320 cum
	Say 94.320 cum @ Rs 8340.93 / cum	Rs 786716.52
4	od189995/2018_2019 Supplying 125mm GI(m) pipe	
	Net Total Quantity 95	50.000 metre
	Say 950.000 metre @ Rs 1434.45 / metre	Rs 1362727.50
5	od3664/2019_2020	
	Specials for 125 mm GI(m) pipe - 10 % of value of pipe supply.	
	Net Total Quantity 1.	000 set
	Say 1.000 set @ Rs 136277.50 / set	Rs 136277.50
9Anne	ndix B - (8)- Line charging, stabilization& interconnection - (h) Gap filli	ng works at various places o
.07.1010	distribution system (Cost Index:41.53 %)	ng nome at taneae places
1	100.12.6	of and
•	Conveying and fixing G.I. pipes complete with G.I. fittings including	trenching and refilling etc. I
	excluding cost of pipes and fittings - External work.	
	50 mm dia nominal bore	
	Observed Data derived from item no.18.12.6 of DAR uthority	
	Data for 10 m	
	Net Total Quantity 30	00.000 metre
	Say 300.000 metre @ Rs 174.65 / metre	Rs 52395.00
2	100.12.7	
	Conveying and fixing G.I. pipes complete with G.I. fittings including	trenching and refilling etc.
	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	
		50.000 metre
	Data for 10 m	50.000 metre Rs 97825.50
3	Data for 10 m  Net Total Quantity 45  Say 450.000 metre @ Rs 217.39 / metre	
3	Data for 10 m  Net Total Quantity 45	Rs 97825.50
3	Data for 10 m  Net Total Quantity 45  Say 450.000 metre @ Rs 217.39 / metre  100.12.8	Rs 97825.50
3	Data for 10 m  Net Total Quantity 45  Say 450.000 metre @ Rs 217.39 / metre  100.12.8  Conveying and fixing G.I. pipes complete with G.I. fittings including	Rs 97825.50
3	Data for 10 m  Net Total Quantity 45  Say 450.000 metre @ Rs 217.39 / metre  100.12.8  Conveying and fixing G.I. pipes complete with G.I. fittings including excluding cost of pipes and fittings - External work.	Rs 97825.50
3	Data for 10 m  Net Total Quantity 45  Say 450.000 metre @ Rs 217.39 / metre  100.12.8  Conveying and fixing G.I. pipes complete with G.I. fittings including excluding cost of pipes and fittings - External work.  80 mm dia nominal bore	Rs 97825.50

	Say 600.000 metre @ Rs 217.74 / metre	Rs 130644.00
4	100.12.9 Conveying and fixing G.I. pipes complete with G.I. fittings includir excluding cost of pipes and fittings - External work. 100 mm dia nominal bore Observed Data derived from item no.18.12 of DAR	ng trenching and refilling etc. but
	Net Total Quantity	300.000 metre
	Say 300.000 metre @ Rs 245.48 / metre	Rs 73644.00
5	100.12.10 "Conveying and fixing G.I. pipes complete with G.I. fittings including excluding cost of pipes and fittings - External work.  125 mm dia nominal bore  Observed Data derived from item no.18.12 of DAR	ng trenching and refilling etc. but
	Net Total Quantity	150.000 metre
	Say 150.000 metre @ Rs 274.99 / metre	Rs 41248.50
6	5.1.3  Providing and laying in position specified grade of reinforced ceme centering, shuttering, finishing and reinforcement - All work up to plint sand : 4 graded stone aggregate 20 mm nominal size)	h level:1:2:4 ( 1 cement : 2 coarse
	Net Total Quantity	
7	Say 5.760 cum @ Rs 8964.72 / cum  od189999/2018_2019 Supply of 50mm GI pipe (M).  Net Total Quantity	Rs 51636.79  300.000 metre
	Say 300.000 metre @ Rs 509.59 / metre	Rs 152877.00
8	od190454/2018_2019 Supply 65 mm GI pipe(m) as per direction	
	Net Total Quantity	450.000 metre
	Say 450.000 metre @ Rs 649.33 / metre	Rs 292198.50
9	od190319/2018_2019 Supply of 80mm GI pipe(m)	
	Net Total Quantity	600.000 metre
	Say 600.000 metre @ Rs 830.16 / metre	Rs 498096.00
10	od190456/2018_2019 Supply of 100 mm GI(m) pipe	
	Net Total Quantity	300.000 metre
	Say 300.000 metre @ Rs 1052.32 / metre	Rs 315696.00

11	od189995/2018_2019	
	Supplying 125mm GI(m) pipe	
	Net Total Quantity 1	50.000 metre
	Say 150.000 metre @ Rs 1434.45 / metre	Rs 215167.50
12	od269/2019_2020	
	Specials for GI (m) pipes- KIIFB Ayyappancovil Gap filling works - 50mn	n, 65mm, 80mm, 100mm, 125mm
	GI(m) pipes.	
	Net Total Quantity 1	.000 set
	Say 1.000 set @ Rs 128868.00 / set	Rs 128868.00
Appe	ndix B - (8)- Line charging, stabilization& interconnection - (i) Leak rec	ctification works in distribution
	system in Zone I, II, III, IV & VI (Cost Index:41.53	
	//2m2\	
1	100.47.1.3	
1	100.47.1.3  Leak rectification work in 50 mm PVC (Class 2 to 6) pipe line including	detecting and locating leak, eartl
1	7 (18/38) 1	•
1	Leak rectification work in 50 mm PVC (Class 2 to 6) pipe line including	pe including tar cutting / concrete
1	Leak rectification work in 50 mm PVC (Class 2 to 6) pipe line including work excavation in all kinds of soil for for exposing leak portion of the pi cutting, cutting the pipe diametrically perpendicular to the axis of pipe lit to the remaining portion, dismantling and lifting the pipe from trence	pe including tar cutting / concretence with out causing any damage whes, smoothening the cut ends
1	Leak rectification work in 50 mm PVC (Class 2 to 6) pipe line including work excavation in all kinds of soil for for exposing leak portion of the pi cutting, cutting the pipe diametrically perpendicular to the axis of pipe line to the remaining portion, dismantling and lifting the pipe from trenct conveying the new pipe to the site, cutting and lowering new pipe in to	pe including tar cutting / concretence with out causing any damage thes, smoothening the cut ends to the trenches, placing in position
1	Leak rectification work in 50 mm PVC (Class 2 to 6) pipe line including work excavation in all kinds of soil for for exposing leak portion of the picutting, cutting the pipe diametrically perpendicular to the axis of pipe line to the remaining portion, dismantling and lifting the pipe from trenc conveying the new pipe to the site, cutting and lowering new pipe in to aligning the pipe to line and level and jointing the new pipe with the exit	pe including tar cutting / concretence with out causing any damage thes, smoothening the cut ends to the trenches, placing in position isting pipe with solvent cement of
1	Leak rectification work in 50 mm PVC (Class 2 to 6) pipe line including work excavation in all kinds of soil for for exposing leak portion of the pi cutting, cutting the pipe diametrically perpendicular to the axis of pipe line to the remaining portion, dismantling and lifting the pipe from trend conveying the new pipe to the site, cutting and lowering new pipe in to aligning the pipe to line and level and jointing the new pipe with the exit or any available joint and testing the pipe line by operating the valve.	pe including tar cutting / concretence with out causing any damage thes, smoothening the cut ends to the trenches, placing in position string pipe with solvent cement ces concerned, and rectifying the
1	Leak rectification work in 50 mm PVC (Class 2 to 6) pipe line including work excavation in all kinds of soil for for exposing leak portion of the pi cutting, cutting the pipe diametrically perpendicular to the axis of pipe line to the remaining portion, dismantling and lifting the pipe from trend conveying the new pipe to the site, cutting and lowering new pipe in to aligning the pipe to line and level and jointing the new pipe with the exist or any available joint and testing the pipe line by operating the valve defects if noticed and without causing any damages to the existing utilities.	pe including tar cutting / concretence with out causing any damage thes, smoothening the cut ends to the trenches, placing in position isting pipe with solvent cement cles concerned, and rectifying the es and refilling the trenches using
1	Leak rectification work in 50 mm PVC (Class 2 to 6) pipe line including work excavation in all kinds of soil for for exposing leak portion of the picutting, cutting the pipe diametrically perpendicular to the axis of pipe line to the remaining portion, dismantling and lifting the pipe from trenct conveying the new pipe to the site, cutting and lowering new pipe in to aligning the pipe to line and level and jointing the new pipe with the exit or any available joint and testing the pipe line by operating the valve defects if noticed and without causing any damages to the existing utilitie excavated earth in layers not exceeding 20cm depth including conso	ipe including tar cutting / concretence with out causing any damage thes, smoothening the cut ends to the trenches, placing in position isting pipe with solvent cement causes concerned, and rectifying the sand refilling the trenches using lidating each layers by ramming
1	Leak rectification work in 50 mm PVC (Class 2 to 6) pipe line including work excavation in all kinds of soil for for exposing leak portion of the picutting, cutting the pipe diametrically perpendicular to the axis of pipe line to the remaining portion, dismantling and lifting the pipe from trend conveying the new pipe to the site, cutting and lowering new pipe in to aligning the pipe to line and level and jointing the new pipe with the exit or any available joint and testing the pipe line by operating the valve defects if noticed and without causing any damages to the existing utilitie excavated earth in layers not exceeding 20cm depth including consolwatering, charges for removing surplus soil from work site, including him	ipe including tar cutting / concretence with out causing any damage thes, smoothening the cut ends to the trenches, placing in position isting pipe with solvent cement des concerned, and rectifying the es and refilling the trenches using lidating each layers by ramming the for tools and plant, conveyance
1	Leak rectification work in 50 mm PVC (Class 2 to 6) pipe line including work excavation in all kinds of soil for for exposing leak portion of the picutting, cutting the pipe diametrically perpendicular to the axis of pipe line to the remaining portion, dismantling and lifting the pipe from trend conveying the new pipe to the site, cutting and lowering new pipe in to aligning the pipe to line and level and jointing the new pipe with the exit or any available joint and testing the pipe line by operating the valve defects if noticed and without causing any damages to the existing utilitie excavated earth in layers not exceeding 20cm depth including consolwatering, charges for removing surplus soil from work site, including hir of tools and materials, bailing out water, providing caution boards, lighting	ipe including tar cutting / concrete ne with out causing any damages thes, smoothening the cut ends to the trenches, placing in position isting pipe with solvent cement of es concerned, and rectifying the es and refilling the trenches using lidating each layers by ramming the for tools and plant, conveyance ag, watching, ribbon fencing, traffic
1	Leak rectification work in 50 mm PVC (Class 2 to 6) pipe line including work excavation in all kinds of soil for for exposing leak portion of the picutting, cutting the pipe diametrically perpendicular to the axis of pipe line to the remaining portion, dismantling and lifting the pipe from trend conveying the new pipe to the site, cutting and lowering new pipe in to aligning the pipe to line and level and jointing the new pipe with the exit or any available joint and testing the pipe line by operating the valve defects if noticed and without causing any damages to the existing utilitie excavated earth in layers not exceeding 20cm depth including consolwatering, charges for removing surplus soil from work site, including him	pe including tar cutting / concrete ne with out causing any damages thes, smoothening the cut ends to the trenches, placing in position disting pipe with solvent cement of es concerned, and rectifying the es and refilling the trenches using lidating each layers by ramming the for tools and plant, conveyance ag, watching, ribbon fencing, traffical
1	Leak rectification work in 50 mm PVC (Class 2 to 6) pipe line including work excavation in all kinds of soil for for exposing leak portion of the picutting, cutting the pipe diametrically perpendicular to the axis of pipe line to the remaining portion, dismantling and lifting the pipe from trend conveying the new pipe to the site, cutting and lowering new pipe in to aligning the pipe to line and level and jointing the new pipe with the exit or any available joint and testing the pipe line by operating the valve defects if noticed and without causing any damages to the existing utilitie excavated earth in layers not exceeding 20cm depth including consolwatering, charges for removing surplus soil from work site, including hir of tools and materials, bailing out water, providing caution boards, lighting controlling etc.complete as per the direction of Departmental officers in	pe including tar cutting / concrete ne with out causing any damages thes, smoothening the cut ends to the trenches, placing in position disting pipe with solvent cement of es concerned, and rectifying the es and refilling the trenches using lidating each layers by ramming the for tools and plant, conveyance ag, watching, ribbon fencing, traffic accluding the cost of pipe and PVC

Say 20.000 Leak @ Rs 1399.52 / Leak

Rs 27990.40

## 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.

Net Total Quantity	30.000 Leak
Say 30.000 Leak @ Rs 1692.18 / Leak	Rs 50765.40

### 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.

Pipes and specials shall be of good quality and conforming to relevant standards: All Socketed Jointing.
Net Total Quantity 15.000 Leak
Say 15.000 Leak @ Rs 1817.26 / Leak

## 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.

Net Total Quantity	15.000 Leak
Say 15.000 Leak @ Rs 2046.80 / Leak	Rs 30702.00
P 1 17 1123 11 2 11 A	

### 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.

Net Total Quantity	7.000 Leak
Say 7.000 Leak @ Rs 2294.70 / Leak	Rs 16062.90

## 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.

Net Total Quantity	10.000 Leak
Say 10.000 Leak @ Rs 2679.96 / Leak	Rs 26799.60

## 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.

•	<u>'</u>		_ '		<u> </u>	9
					Net Total Quantity	10.000 Leak
		Say	10.0	00 L	eak @ Rs 3225.99 / Leak	Rs 32259.90

## 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.

Net Total Quantity	56.000 Leak
Say 56.000 Leak @ Rs 3690.21 / Leak	Rs 206651.76

### 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.

Net Total Quantity	5.000 Leak
Say 5.000 Leak @ Rs 5858.48 / Leak	Rs 29292.40

## 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.

Net Total Quantity	3.000 Leak
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## Say 3.000 Leak @ Rs 6986.86 / Leak

Rs 20960.58

### 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.

# Net Total Quantity 3.000 Leak Say 3.000 Leak @ Rs 7912.50 / Leak Rs 23737.50

#### 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.

Net Total Quantity	1.000 Leak
Say 1.000 Leak @ Rs 8846.13 / Leak	Rs 8846.13

#### 13 100.50.1.1

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.

Net	Total	Quantity	40.000	Leak
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	Say 40.000 Leak @ Rs 2279.32 / Leak	Rs 91172.80
14	Rectification of leakages of 65 mm GI Pipes by replacing lengths excavation in all kindss of soil for exposing leak portion of the pipe cutting, removing and stacking the damaged portion from the existing to the remaining portion and specials and conveying and replacing jointing by thraded coupler and union of suitable size including threadi make a water tight joint, testing the line to the required pressure, refilling the trenches using excavated earth in layers not exceeding 2 each layers by ramming, watering, removing the surplus soil from the damages to any other utilities, including the charges hire and conveys the leak site, bailing out water, lighting, watching, ribbon fencing, including the cost of specials but excluding cost of pipe and as per the etc. complete.	including tar / concrete cutting, by line without causing any damages with GI Pipes of suitable size and ng, alignment, laying and jointing to rectifying any defects noticed and 20cm depth including consolidating the work site, without causing any ance of tools, plant and materials to caution boards, traffic diversion
	Net Total Quantity	25.000 Leak
	Say 25.000 Leak @ Rs 3251.11 / Leak	Rs 81277.75
15	100.50.1.3 Rectification of leakages of 80 mm GI Pipes by replacing lengths excavation in all kindss of soil for exposing leak portion of the pipe cutting, removing and stacking the damaged portion from the existing to the remaining portion and specials and conveying and replacing jointing by thraded coupler and union of suitable size including threadi make a water tight joint, testing the line to the required pressure, refilling the trenches using excavated earth in layers not exceeding 2 each layers by ramming, watering, removing the surplus soil from the surplus	including tar / concrete cutting, by line without causing any damages with GI Pipes of suitable size and ng, alignment, laying and jointing to rectifying any defects noticed and 20cm depth including consolidating
	damages to any other utilities, including the charges hire and conveyathe leak site, bailing out water, lighting, watching, ribbon fencing, including the cost of specials but excluding cost of pipe and as per the etc. complete.	caution boards, traffic diversion
	the leak site, bailing out water, lighting, watching, ribbon fencing, including the cost of specials but excluding cost of pipe and as per the	caution boards, traffic diversion e direction of departmental officers

### 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.

Net Total Quantity	5.000 Leak
Say 5.000 Leak @ Rs 3728.38 / Leak	Rs 18641.90

## 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.

Net Total Quantity	6.000 Leak
Say 6.000 Leak @ Rs 4314.97 / Leak	Rs 25889.82

## 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.

	Net Total Quantity	4.000 Leak
	Say 4.000 Leak @ Rs 4938.51 / Leak	Rs 19754.04
19	100.37.3  Welding MS sheet, pipe and special by gas or electric plant for th welding rod / gas, all labour and hire charges of tools etc complete	•
	Net Total Quantity	1789.800 cm
	Say 1789.800 cm @ Rs 12.45 / cm	Rs 22283.01
20	Rectifying the leakages in vertical pipe of public tap connection includings of soil for exposing the pipeline including concrete / tar cutting portion of pipe, fixing new 20/25 mm GI pipe and specials in place connecting with existing pipe line, testing the line to the required press and refilling the trenches using excavated earth in layers not econsolidating each layers by ramming, watering, removing the surplicausing any damages to any other utilities, including the charges of his and materials to the leak site, bailing out water, lighting, watching, riblid diversion, including cost of pipe and specials and as per the direct complete.	eg,cutting and removing damage e of damaged portion of pipe and sure, rectifying any defects notice exceeding 20cm depth including us soil from the work site, without re and conveyance of tools, plant boon fencing, caution boards, traff
	Net Total Quantity	10.000 Leak
	Say 10.000 Leak @ Rs 824.64 / Leak	Rs 8246.40
21	100.56.1 Supplying and fixing 15 / 20 mm PVC public tap after dismantling the materials, labour charges, hire for tools and as per the direction of the Net Total Quantity	e department officers etc complet
		15.000 Nos
	Say 15.000 Nos @ Rs 133.53 / Nos	15.000 Nos Rs 2002.95
22		
22	Say 15.000 Nos @ Rs 133.53 / Nos 100.98.1008	Rs 2002.95
22	Say 15.000 Nos @ Rs 133.53 / Nos 100.98.1008 Engaging Coolie	Rs 2002.95
22	Say 15.000 Nos @ Rs 133.53 / Nos  100.98.1008 Engaging Coolie  Net Total Quantity	Rs 2002.95  40.000 Day  Rs 36690.40
	Say 15.000 Nos @ Rs 133.53 / Nos  100.98.1008 Engaging Coolie  Net Total Quantity  Say 40.000 Day @ Rs 917.26 / Day  13.44.1 Finishing walls with water proofing cement paint of required shade:Nev	Rs 2002.95  40.000 Day  Rs 36690.40  w work (Two or more coats applied)
	Say 15.000 Nos @ Rs 133.53 / Nos  100.98.1008 Engaging Coolie  Net Total Quantity  Say 40.000 Day @ Rs 917.26 / Day  13.44.1 Finishing walls with water proofing cement paint of required shade:New @ 3.84 kg/10 sqm)	Rs 2002.95  40.000 Day  Rs 36690.40  w work (Two or more coats applied
	Say 15.000 Nos @ Rs 133.53 / Nos  100.98.1008 Engaging Coolie  Net Total Quantity  Say 40.000 Day @ Rs 917.26 / Day  13.44.1 Finishing walls with water proofing cement paint of required shade:New @ 3.84 kg/10 sqm)  Net Total Quantity	Rs 2002.95  40.000 Day  Rs 36690.40  w work (Two or more coats applied 1200.000 sqm
23	Say 15.000 Nos @ Rs 133.53 / Nos  100.98.1008 Engaging Coolie  Net Total Quantity  Say 40.000 Day @ Rs 917.26 / Day  13.44.1 Finishing walls with water proofing cement paint of required shade:New @ 3.84 kg/10 sqm)  Net Total Quantity  Say 1200.000 sqm @ Rs 112.09 / sqm  100.98.48	Rs 2002.95  40.000 Day  Rs 36690.40  w work (Two or more coats applied 1200.000 sqm  Rs 134508.00

	ng main with aerator at treatment plant using 350mm DIK9 pipes and p water pumping main (Cost Index:41.53 %)	
1	100.1.1	
	Excavating trenches of required width for pipes, cables, etc includ	ing excavation for sockets, a
	dressing of sides, ramming of bottoms, depth up to 1.5 m, including ge	etting out the excavated soil, a
	then returning the soil as required, in layers not exceeding 20 cm in de	•
	deposited layer by ramming, watering, etc. and disposing of surplus ex	cavated soil as directed, withi
	lead of 50 m:	
	All kinds of soil	
	(Ref. Item No. 2.10.1 of DSR)	
	Net Total Quantity 8	35.801 cum
	Say 85.801 cum @ Rs 579.85 / cum	Rs 49751.71
2	100.1.5	
	Excavating trenches of required width for pipes, cables, etc includ	•
	dressing of sides, ramming of bottoms, depth up to 1.5 m, including ge	<u> </u>
	then returning the soil as required, in layers not exceeding 20 cm in de	
	deposited layer by ramming, watering, etc. and disposing of surplus ex	cavated soil as directed, with
	lead of 50 m:"	
	Ordinary Rock.	
	(Ref. Item No. 2.13.1 of DSR)	
	Net Total Quantity 2  Kerala Water Authority	22.881 cum
	Say 22.881 cum @ Rs 842.10 / cum	Rs 19268.09
3	100.2.2	
	Excavation work by mechanical means (Hydraulic excavator) / manual	means in foundation trenche
	drains (not exceeding 1.5 m in width or 10 m2 on plan), including dr	ressing of sides and ramming
	bottoms, lift up to 1.5 m, including getting out the excavated soil and di	isposal of surplus excavated s
	as directed, within a lead of 50 m.	
	Medium Rock (blasting prohibited)	
	New Data derived from Item No.2.9.3	
	Net Total Quantity 5	5.721 cum
	Say 5.721 cum @ Rs 1106.34 / cum	Rs 6329.37
4	Say 5.721 cum @ Rs 1106.34 / cum 50.2.25.1	Rs 6329.37
4		
4	50.2.25.1	sides of foundations etc. in lay
4	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, s	sides of foundations etc. in lay
4	50.2.25.1 Filling with contractor's own earth ( excluding rock) in trenches, plinth, so not exceeding 20 cm in depth, consolidating each deposited layer by r	sides of foundations etc. in lay ramming and watering, lead u

Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS excluding cost of pipes and specials : 350 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.20 in DAR  Net Total Quantity 80.000 metre  Say 80.000 metre @ Rs 283.70 / metre  Rs 22696.00  18.70.6 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including tes joints and including the cost of rubber gasket:350 mm dia pipes  Net Total Quantity 16.000 joint  Say 16.000 joint @ Rs 456.93 / joint Rs 7310.88  Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:3 diameter pipe  Net Total Quantity 2.000 Nos  Say 2.000 Nos @ Rs 811.46 / Nos Rs 1622.92  8 18.26.2 Providing and laying flanged C.I. Standard specials such as tees, bends, collars, tapers, cap suitable for flanged jointing as per IS : 1538 :Over 300 mm dia  Kerala Water Net Total Quantity 5.910 quintal  Say 5.910 quintal @ Rs 9660.34 / quintal Rs 57092.61  9 18.83.8 Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe  Net Total Quantity 8.000 Each Cut  Say 8.000 Each Cut @ Rs 781.10 / Each Cut  Rs 6248.80  10 100.35.6 Testing 350mm DI/Cl pipeline with potable water to the required test pressure. 350 mm dia  Observed Data derived from item no.1024 of PHED DATA  Net Total Quantity 80.000 metre  Say 80.000 metre @ Rs 70.53 / metre  Rs 5642.40  4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centeric shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate : nominal size)  Net Total Quantity 30.000 cum		100 11 6		
excluding cost of pipes and specials: 350 mm dia Ductile Iron Class K-9 Pipes Data derived from 18.72.20 in DAR  Net Total Quantity 80.000 metre  Rs 22696.00  18.70.6 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including tes joints and including the cost of rubber gasket:350 mm dia pipes  Net Total Quantity Say 16.000 joint @ Rs 456.93 / joint Rs 7310.88 Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:3 diameter pipe  Net Total Quantity 2.000 Nos Rs 1622.92  8 18.26.2 Providing and laying flanged C.I. Standard specials such as tees, bends, collars, tapers, cap suitable for flanged jointing as per IS: 1538: Over 300 mm dia  KCFALA Water Net Total Quantity Say 5.910 quintal @ Rs 9660.34 / quintal Rs 57092.61  9 18.83.8 Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe  Net Total Quantity 8.000 Each Cut Say 8.000 Each Cut @ Rs 781.10 / Each Cut Rs 6248.80  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  Net Total Quantity Say 8.000 metre Rs 5642.40  4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centeris shuttering - All work up to plinth level:1:2:4 (cement: 2 coarse sand: 4 graded stone aggregate in nominal size)	5	100.14.6  Conveying and laving S&S Centrifugally Cast (Spun) / Ductile Ir	on Pipes conforming to IS: 832	
Net Total Quantity   80.000 metre   Rs 283.70 / metre   Rs 22696.00				
Net Total Quantity   Say 80.000 metre @ Rs 283.70 / metre   Rs 22696.00		350 mm dia Ductile Iron Class K-9 Pipes		
Say 80.000 metre @ Rs 283.70 / metre  18.70.6 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including test joints and including the cost of rubber gasket:350 mm dia pipes    Net Total Quantity   16.000 joint   Rs 7310.88		Data derived from 18.72.20 in DAR	I	
18.70.6 Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including test joints and including the cost of rubber gasket:350 mm dia pipes    Net Total Quantity   16.000 joint   Rs 7310.88		Net Total Quantity	80.000 metre	
Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including test joints and including the cost of rubber gasket:350 mm dia pipes  Net Total Quantity 16.000 joint Rs 7310.88  18.30.8  Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:3 diameter pipe  Net Total Quantity 2.000 Nos Rs 11.46 / Nos Rs 1622.92  18.26.2  Providing and laying flanged C.I. Standard specials such as tees, bends, collars, tapers, cap suitable for flanged jointing as per IS : 1538 :Over 300 mm dia  Kerala Water Net Total Quantity 5.910 quintal  Say 5.910 quintal Rs 9660.34 / quintal Rs 57092.61  9 18.83.8  Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe  Net Total Quantity 8.000 Each Cut  Say 8.000 Each Cut Rs 781.10 / Each Cut  Rs 6248.80  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  Net Total Quantity 80.000 metre  Say 80.000 metre Rs 70.53 / metre  Rs 5642.40  11 4.1.3  Providing and laying in position cement concrete of specified grade excluding the cost of centeric shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate : nominal size)		Say 80.000 metre @ Rs 283.70 / metre	Rs 22696.00	
Say 16.000 joint @ Rs 456.93 / joint  Rs 7310.88  7	6	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or D	uctile Iron Pipes including testing	
7		Net Total Quantity	16.000 joint	
Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:38 diameter pipe  Net Total Quantity 2.000 Nos  Say 2.000 Nos ® Rs 811.46 / Nos  Rs 1622.92  8		Say 16.000 joint @ Rs 456.93 / joint	Rs 7310.88	
Net Total Quantity   2.000 Nos	7	18.30.8		
Say 2.000 Nos @ Rs 811.46 / Nos Rs 1622.92  8			, including testing of joints:350 n	
8		Net Total Quantity	2.000 Nos	
Providing and laying flanged C.I. Standard specials such as tees, bends, collars, tapers, cap suitable for flanged jointing as per IS: 1538: Over 300 mm dia    Reference		Say 2.000 Nos @ Rs 811.46 / Nos	Rs 1622.92	
suitable for flanged jointing as per IS: 1538: Over 300 mm dia  Kerala Water Net Total Quantity  Say 5.910 quintal @ Rs 9660.34 / quintal Rs 57092.61  9	8	18.26.2		
Say 5.910 quintal @ Rs 9660.34 / quintal Rs 57092.61  9 18.83.8 Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe  Net Total Quantity 8.000 Each Cut  Say 8.000 Each Cut @ Rs 781.10 / Each Cut  Rs 6248.80  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  Net Total Quantity 80.000 metre  Say 80.000 metre @ Rs 70.53 / metre  Rs 5642.40  11 4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 2 nominal size)		Providing and laying flanged C.I. Standard specials such as tees,	bends, collars, tapers, caps e	
Say 5.910 quintal @ Rs 9660.34 / quintal Rs 57092.61  9		9 1 9 1	I	
9 18.83.8 Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe  Net Total Quantity 8.000 Each Cut  Say 8.000 Each Cut ® Rs 781.10 / Each Cut Rs 6248.80  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  Net Total Quantity 80.000 metre  Say 80.000 metre ® Rs 70.53 / metre Rs 5642.40  11 4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering shuttering - All work up to plinth level:1:2:4 (cement: 2 coarse sand: 4 graded stone aggregate 2 nominal size)		Kerala Water Net Total Quantity	5.910 quintal	
Labour for cutting C.I. pipe with steel saw.350 mm diameter C.I pipe    Net Total Quantity   8.000 Each Cut		Say 5.910 quintal @ Rs 9660.34 / quintal	Rs 57092.61	
Net Total Quantity  Say 8.000 Each Cut @ Rs 781.10 / Each Cut  Rs 6248.80  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  Net Total Quantity  80.000 metre  Say 80.000 metre @ Rs 70.53 / metre  Rs 5642.40  11 4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering shuttering - All work up to plinth level:1:2:4 (cement: 2 coarse sand: 4 graded stone aggregate 2 nominal size)	9	18.83.8		
Say 8.000 Each Cut @ Rs 781.10 / Each Cut  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  Net Total Quantity 80.000 metre  Say 80.000 metre @ Rs 70.53 / metre  Rs 5642.40  4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centerin shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 2 nominal size)				
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  Net Total Quantity 80.000 metre  Say 80.000 metre @ Rs 70.53 / metre  Rs 5642.40  11 4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering shuttering - All work up to plinth level:1:2:4 (cement: 2 coarse sand: 4 graded stone aggregate 2 nominal size)		Net Total Quantity	8.000 Each Cut	
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  Net Total Quantity 80.000 metre  Say 80.000 metre @ Rs 70.53 / metre Rs 5642.40  11 4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 2 nominal size)		Say 8.000 Each Cut @ Rs 781.10 / Each Cut	Rs 6248.80	
350 mm dia Observed Data derived from item no.1024 of PHED DATA  Net Total Quantity 80.000 metre  Say 80.000 metre @ Rs 70.53 / metre  Rs 5642.40  4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 2 nominal size)	10	100.35.6		
Observed Data derived from item no.1024 of PHED DATA  Net Total Quantity 80.000 metre  Say 80.000 metre @ Rs 70.53 / metre Rs 5642.40  4.1.3  Providing and laying in position cement concrete of specified grade excluding the cost of centering shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 2 nominal size)				
Net Total Quantity 80.000 metre  Say 80.000 metre @ Rs 70.53 / metre  Rs 5642.40  4.1.3  Providing and laying in position cement concrete of specified grade excluding the cost of centering shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 2 nominal size)				
Say 80.000 metre @ Rs 70.53 / metre  Rs 5642.40  4.1.3  Providing and laying in position cement concrete of specified grade excluding the cost of centering shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 2 nominal size)		Observed Data derived from item no.1024 of PHED DATA		
4.1.3  Providing and laying in position cement concrete of specified grade excluding the cost of centering shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 2 nominal size)		Net Total Quantity	80.000 metre	
Providing and laying in position cement concrete of specified grade excluding the cost of centering shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 2 nominal size)		Say 80.000 metre @ Rs 70.53 / metre	Rs 5642.40	
shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 2 nominal size)	11	4.1.3		
nominal size)		Providing and laying in position cement concrete of specified grade e	excluding the cost of centering a	
			: 4 graded stone aggregate 20 n	
ואסנ זיטנמו עעמוווונעוסט.טטט נעווו		· · · · · · · · · · · · · · · · · · ·	30.000 cum	
Say 30.000 cum @ Rs 8340.93 / cum Rs 250227.90				

12	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting binding all complete upto plinth levelThermo - Mechanically Treate	
		1200.000 kilogram
	Say 1200.000 kilogram @ Rs 102.61 / kilogram	Rs 123132.00
13	100.37.10.1	
	Fabricating MS pipes of size 350mm (ID) using 8 mm thick MS plate charges of MS plate, all fabrication charges, charges of painting the deluxe multi surface paint to give an even shade over an under coat fabricated with 8mm thick MS plates.	steel work with two or more co
	Net Total Quantity	10.000 metre
	Say 10.000 metre @ Rs 9145.95 / metre	Rs 91459.50
14	100.37.10.3	
	Cutting 350 mm (ID) MS pipes for making bends and other specials be all labour and hire charges of tools etc. complete: For pipes fabricated	
	Net Total Quantity	5.000 No
	Say 5.000 No @ Rs 374.28 / No	Rs 1871.40
15	Welding 350 mm (ID) MS pipes for making bends and other special including cost of gas and welding rods ,all labour and hire charges fabricated with 8mm thick MS plates. Water Authority	, ,
	Net Total Quantity	5,000 No
	Say 5.000 No @ Rs 1432.07 / No	Rs 7160.35
16	100.37.10.5	
	Grinding cut and weld edges of 350 mm (ID) MS pipes during fabrica	<del>-</del>
	hire charges of tools etc. complete: For pipes fabricated with 8mm th	nick MS plates.
	Net Total Quantity	5.000 No
	Say 5.000 No @ Rs 268.48 / No	Rs 1342.40
17	100.37.6.1 Fabricating MS pipes of size 150mm (ID) using 8 mm thick MS pla charges of MS plate, all fabrication charges, charges of painting the deluxe multi surface paint to give an even shade over an under coat fabricated with 8mm thick MS plates.	steel work with two or more c
	Net Total Quantity	2.000 metre
	Say 2.000 metre @ Rs 5174.62 / metre	Rs 10349.24
18	100.37.6.3  Cutting 150mm (ID)MS pipes for making bends and other specials by glabour and hire charges of tools etc. complete: For pipes fabricated with	

	Net Total Quantity	3.000 No
	Say 3.000 No @ Rs 169.77 / No	Rs 509.31
19	100.37.6.4 Welding 150mm (ID) MS pipes for making bends and other specials including cost of gas and welding rods ,all labour and hire charges fabricated with 8mm thick MS plates.	, ,
	Net Total Quantity	3.000 No
	Say 3.000 No @ Rs 649.48 / No	Rs 1948.44
20	100.37.6.5 Grinding cut and weld edges of 150mm (ID) MS pipes during fabrication charges of tools etc. complete: For pipes fabricated with 8mm thick MS	<del>-</del>
	Net Total Quantity	3.000 No
	Say 3.000 No @ Rs 121.79 / No	Rs 365.37
21	100.98.120 Supply of DI K9 Pipe Conforming to IS 8329/2000, 350mm Dia.	
	Net Total Quantity	80.000 metre
	Say 80.000 metre @ Rs 5506.95 / metre	Rs 440556.00
22	od83893/2020_2021 Providing 350mm surge arrestor- Earth work in excavation by mechar manual means in foundation trenches or drains (not exceeding 1. including dressing of sides and ramming of bottoms, lift up to 1.5 m, i soil and disposal of surplus excavated soil as directed, within a lead oper DSR Observed data)	5 m in width or 10 sqm on plancluding getting out the excava
	Net Total Quantity	15.000 cum
	Net Total Quantity Say 15.000 cum @ Rs 425.54 / cum	15.000 cum Rs 6383.10
23	·	Rs 6383.10  ving test pressure 45Kg/cm2 to ail piece, 2 Nos. Mechanical join
23	Say 15.000 cum @ Rs 425.54 / cum  od83894/2020_2021  Providing 350mm surge arrestor- Providing 350mm surge arrestor have clear water pumping main including cost of specials such as 2 Nos. To cutting the existing DI pipe, inserting surge arrestor, jointing with flanger	Rs 6383.10  ving test pressure 45Kg/cm2 to ail piece, 2 Nos. Mechanical joined joints etc. including cost of su
23	Say 15.000 cum @ Rs 425.54 / cum  od83894/2020_2021  Providing 350mm surge arrestor- Providing 350mm surge arrestor have clear water pumping main including cost of specials such as 2 Nos. T cutting the existing DI pipe, inserting surge arrestor, jointing with flange arrestor.(Rate as per DSR Observed data)	Rs 6383.10  ving test pressure 45Kg/cm2 to ail piece, 2 Nos. Mechanical joined joints etc. including cost of su
23	Say 15.000 cum @ Rs 425.54 / cum  od83894/2020_2021  Providing 350mm surge arrestor- Providing 350mm surge arrestor had clear water pumping main including cost of specials such as 2 Nos. To cutting the existing DI pipe, inserting surge arrestor, jointing with flange arrestor. (Rate as per DSR Observed data)  Net Total Quantity	Rs 6383.10  ving test pressure 45Kg/cm2 to ail piece, 2 Nos. Mechanical joi ed joints etc. including cost of su  1.000 No  Rs 600000.00  m nominay size metal for anch
	Say 15.000 cum @ Rs 425.54 / cum  od83894/2020_2021  Providing 350mm surge arrestor- Providing 350mm surge arrestor have clear water pumping main including cost of specials such as 2 Nos. To cutting the existing DI pipe, inserting surge arrestor, jointing with flange arrestor. (Rate as per DSR Observed data)  Net Total Quantity  Say 1.000 No @ Rs 600000.00 / No  od83895/2020_2021  Providing 350mm surge arrestor- Cement concrete 1:2:4 using 20mi	Rs 6383.10  ving test pressure 45Kg/cm2 to ail piece, 2 Nos. Mechanical joined joints etc. including cost of sure 1.000 No  Rs 600000.00  m nominay size metal for anche. (Rate as per DSR Observed date)

25	od83896/2020_2021  Providing 350mm surge arrestor- Providing air cushion valve of diar Kg/cm2 with flanged ends including all cost of materials such as 2 200mm D/F CI sluice valve - 1 No. etc and all labour charges for fitting by the departmental officers.(Rate as per DSR Observed data)	200mm air cushion valve - 1 No.,
	Net Total Quantity	1.000 No
	Say 1.000 No @ Rs 409500.00 / No	Rs 409500.00
26	od83897/2020_2021  Providing 350mm surge arrestor- Constructing RCC valve chamber of providing the zero velocity valve including all cost of materials, labour directed by the departmental officers. (Rate as per DSR Observed datasets)	charge, form work etc complete as
	Net Total Quantity	1.000 No
	Say 1.000 No @ Rs 63841.40 / No	Rs 63841.40
	32Appendix B- (9) - Road restoration works-(a) PWD road (C	Cost Index:41.53 %)
1	od178589/2018_2019 Removal of unserviceable soil including excavation, loading and disexcluding replacement by suitable soil which shall be paid separal specification code- 3.11)	· ·
	Net Total Quantity	1246.875 cum
2	Say 1246.875 cum @ Rs 47.61 / cum od178591/2018_2019	Rs 59363.72
	Maintenance of Earthen Shoulder (filling with fresh soil) Making up shoulder to the design level by adding fresh approved soil and equipment. (PWD sanctioned rate-specification code- 10.2)	
	shoulder to the design level by adding fresh approved soil and	compacting it with appropriate
	shoulder to the design level by adding fresh approved soil and equipment.(PWD sanctioned rate-specification code- 10.2)	compacting it with appropriate
3	shoulder to the design level by adding fresh approved soil and equipment.(PWD sanctioned rate-specification code- 10.2)  Net Total Quantity	4987.500 sqm  Rs 205734.38  adding in uniform layers with motor ator at OMC, and compacting with e 401. Grading-IV - For lower sub
3	shoulder to the design level by adding fresh approved soil and equipment. (PWD sanctioned rate-specification code- 10.2)  Net Total Quantity  Say 4987.500 sqm @ Rs 41.25 / sqm  od178592/2018_2019  Construction of granular sub-base by providing graded material, spre grader on prepared surface, mixing by mix in place method with rotav vibratory roller to achieve the desired density, complete as per claus	4987.500 sqm  Rs 205734.38  adding in uniform layers with motor ator at OMC, and compacting with e 401. Grading-IV - For lower sube-4.2.A2)
3	shoulder to the design level by adding fresh approved soil and equipment.(PWD sanctioned rate-specification code- 10.2)  Net Total Quantity  Say 4987.500 sqm @ Rs 41.25 / sqm  od178592/2018_2019  Construction of granular sub-base by providing graded material, spre grader on prepared surface, mixing by mix in place method with rotav vibratory roller to achieve the desired density, complete as per claus base - Mix in Place Method (PWD sanctioned rate-specification code	4987.500 sqm  Rs 205734.38  ading in uniform layers with motor ator at OMC, and compacting with e 401. Grading-IV - For lower sube-4.2.A2)

	Net Total Quantity	150.000 cum
	Say 150.000 cum @ Rs 3344.36 / cum	Rs 501654.00
5	od178594/2018_2019  Prime Coat- Providing and applying primer coat with bitumen emulsic Base including clearing of road surface and spraying primer at the rameans.(PWD sanctioned rate- specification code-5.1)	· ·
	Net Total Quantity	1500.000 sqm
	Say 1500.000 sqm @ Rs 54.39 / sqm	Rs 81585.00
6	od178595/2018_2019 Supplying and stacking 12mm hard blue granite broken stone in star 3.2.1.a)- PWD sanctioned rate-specification code- 55.2	ndard heaps for measurement(IF
	Net Total Quantity	40.500 cum
	Say 40.500 cum @ Rs 2631.07 / cum	Rs 106558.34
7	od178596/2018_2019 Supplying and stacking 6mm hard blue granite broken stone in stan 3.2.1.a)- PWD sanctioned rate-specification code- 55.3	dard heaps for measurement(IF
	Net Total Quantity	13.500 cum
	Say 13.500 cum @ Rs 2631.07 / cum	Rs 35519.45
8	od178597/2018_2019 Supplying and stacking 36mm size hard broken stone in standar sanctioned rate- specification code- 55.4)	
	Net Total Quantity	150.000 cum
	Say 150.000 cum @ Rs 2537.36 / cum	Rs 380604.00
9	od178598/2018_2019 Providing, laying and rolling of open graded premix carpet of 20 mm departmental aggregates premixed with 12.96 kg of bitumen per 10 sq to required line, grade and level on a previously prepared base, after kg of bitumen (VG 30) 10 sqm including mixing in a suitable plant, lay static roller of 80-100 KN capacity, finished to required level and grade cum of 6 mm departmental aggregates premixed with 8.64 kg of bitum PWD sanctioned rate-specification code-55.1.a	m using penetration grade bitum priming the existing surface with ying and rolling with a three who des,followed by a seal coat of 0.
	Net Total Quantity	
		1500.000 sqm
	Say 1500.000 sqm @ Rs 192.02 / sqm	1500.000 sqm Rs 288030.00
10	Say 1500.000 sqm @ Rs 192.02 / sqm  od178599/2018_2019  Plain cement concrete 1:3:6 nominal mix in foundation with crushed stomechanically mixed, placed in foundation and compacted by vibration sanctioned rate- specification code- 12.4)	Rs 288030.00

	Say 196.875 cum @ Rs 7032.06 / cum	Rs 1384436.81
11	od178600/2018_2019 CPlain/Reinforced Cement Concrete in Open Foundation completed Specifications Specifications CPlain/Reinforced Cement Concrete in Open Foundation completed Specifications Specifications PWD sancti	•
	Net Total Quantity	98.438 cum
	Say 98.438 cum @ Rs 8523.47 / cum	Rs 839033.34
3 <b>A</b> ppe	endix B - (9) - Road restoration works- (b) Village/ Panchayat/ PMGSY	roads (Cost Index:41.53 %)
1	od178592/2018_2019 Construction of granular sub-base by providing graded material, spre grader on prepared surface, mixing by mix in place method with rotav vibratory roller to achieve the desired density, complete as per claus base - Mix in Place Method (PWD sanctioned rate-specification code	rator at OMC, and compacting with se 401. Grading-IV - For lower sul
	Net Total Quantity	154.688 cum
	Say 154.688 cum @ Rs 3178.82 / cum	Rs 491725.31
	Providing, laying, spreading and compacting graded stone aggregate including premixing the Material with water at OMC in mechanical mix tipper to site, laying in uniform layers with paver in sub- base / base compacting with vibratory roller to achieve the desired density.(PWD standard)	plant carriage of mixed Material bourse on well prepared surface and
	Kerala Water Net Total Quantity	103.125 cum
	Say 103.125 cum @ Rs 3344.36 / cum	Rs 344887.13
3	od178594/2018_2019  Prime Coat- Providing and applying primer coat with bitumen emulsion Base including clearing of road surface and spraying primer at the rameans.(PWD sanctioned rate- specification code-5.1)	
	Net Total Quantity	1031.250 sqm
	Say 1031.250 sqm @ Rs 54.39 / sqm	Rs 56089.69
4	od178595/2018_2019 Supplying and stacking 12mm hard blue granite broken stone in star 3.2.1.a)- PWD sanctioned rate-specification code- 55.2	ndard heaps for measurement(IR0
	Net Total Quantity	27.845 cum
	Say 27.845 cum @ Rs 2631.07 / cum	Rs 73262.14
5	od178596/2018_2019 Supplying and stacking 6mm hard blue granite broken stone in stan 3.2.1.a)- PWD sanctioned rate-specification code- 55.3	
	Net Total Quantity	9.282 cum
	Say 9.282 cum @ Rs 2631.07 / cum	Rs 24421.59
	•	l

6	od178597/2018_2019		
	Supplying and stacking 36mm size hard broken stone in standar	d heaps for measurement.(PWD	
	sanctioned rate- specification code- 55.4)		
	Net Total Quantity	92.813 cum	
	Say 92.813 cum @ Rs 2537.36 / cum	Rs 235499.99	
7	od178598/2018_2019		
	Providing, laying and rolling of open graded premix carpet of 20 mm	thickness with 0.27 cum of 12 mn	
	departmental aggregates premixed with 12.96 kg of bitumen per 10 sqm using penetration grade bitume		
	to required line, grade and level on a previously prepared base, after priming the existing surface with		
	kg of bitumen (VG 30) 10 sqm including mixing in a suitable plant, la	•	
	static roller of 80-100 KN capacity, finished to required level and grad	·	
	cum of 6 mm departmental aggregates premixed with 8.64 kg of bitum PWD sanctioned rate-specification code-55.1.a	nen per 10 sqm.By Manuai Means	
	/ 100%COA \		
	Net Total Quantity	1031.250 sqm	
	Say 1031.250 sqm @ Rs 192.02 / sqm	Rs 198020.63	
8	4.1.3		
	Providing and laying in position cement concrete of specified grade e	excluding the cost of centering an	
	shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand :	4 graded stone aggregate 20 mr	
	nominal size)		
	Net Total Quantity	67.500 cum	
	Say 67.500 cum @ Rs 8340.93 / cum	Rs 563012.78	
34Ap	pendix B - (8)- Line charging, stabilization& interconnection - (k)- Pro	oviding Flow Meters (Cost	
·	Index:41.53 %)		
1	od90786/2020_2021		
	Supplying and fixing 200mm Dia Mechanical Flow meter of Woltman type conforming to ISO 4064 Clas		
	B of ARAD/ ZENNER/ REYCHEM RPG/ ITRON make and the flow me	eter shall be tested and certified b	
	FCRI- Palakkad.		
	Net Total Quantity	3.000 No	
	Say 3.000 No @ Rs 39140.29 / No	Rs 117420.87	
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 me	•	
	FCRI- Palakkad.		
	Net Total Quantity	2.000 No	
	Say 2.000 No @ Rs 81012.36 / No	Rs 162024.72	
	3ay 2.000 NO @ NS 01012.30 / NO	1/3 102024.72	

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 foe 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 manufactures Should have the calibration standard. AS per ISO 17.0.25 and the product shall have sufficient warranty provisions.

Net Total Quantity 1.000 No	
Say 1.000 No @ Rs 198254.17 / No R	s 198254.17
Total	121218018.94
Centage @	0.0%
Centage Amount	0.00
Provision for GST payments (in %) @	18.0%
Amount reserved for GST payments	21819243.41
Total & Centage	143037262.35
Lumpsum for round off	62737.65
GRAND TOTAL Rs	143100000.00
Rounded Grand	Total Rs 14,31,00,000

PRICE

Kerala Water AutRupees Fourteen Crore Thirty One Lakh Only