

**ABSTRACT ESTIMATE**

Jal Jeevan Mission (JJM)-WSS - to Santhanpara, Rajakumary (Part) and Senapathy (Part)  
Panchayaths in Idukki District-Package IIIA-Supplying and Laying Distribution and providing  
FHTC in Rajakumary GP-Pipeline Work

SI No	Specification	Quantity	Rate	Amount
<b>1</b>	<b>Supplying , Laying and commissioning of Distribution- Cost of materials</b>			
1.001	100.98.119			
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 300mm Dia.			
	Net Total	1522.000metre	@4520.65/metre	6880429.30
1.002	100.98.118			
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 250mm Dia.			
	Net Total	2557.000metre	@3616.52/metre	9247441.64
1.003	100.98.117			
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.			
	Net Total	3343.000metre	@2589.09/metre	8655327.87
1.004	100.98.116			
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 150mm Dia.			
	Net Total	1496.000metre	@1890.46/metre	2828128.16
1.005	100.98.134			
	Supply of HDPE Pipe PE 100 (IS 4984/1995), 8kg, 90mm Outer Dia.			
	Net Total	5466.000metre	@212.57/metre	1161907.62
1.006	OD99555/2022-2023			
	90mm HDPE Specials (8kg) (3% Cost of pipe)			
	Net Total	5466.000metre	@6.37/metre	34818.42
1.007	100.98.154			
	Supply of HDPE Pipe PE 100 (IS 4984/1995), 10kg, 90mm Outer Dia.			
	Net Total	9057.000metre	@264.59/metre	2396391.63
1.008	OD100162/2022-2023			
	Specials for 90 mm HDPE pipe(10kg) (3% Cost of pipe)			
	Net Total	9057.000metre	@7.95/metre	72003.15

SI No	Specification	Quantity	Rate	Amount
1.009	100.98.194			
	Supply of HDPE Pipe PE 100 (IS 4984/1995), 16kg, 90mm Outer Dia.			
	Net Total	27740.000metre	@376.08/metre	10432459.20
1.010	OD100204/2022-2023			
	Specials for 90mm HDPE Pipe (16kg) (3% Cost of pipe)			
	Net Total	27740.000metre	@11.29/metre	313184.60
1.011	100.98.135			
	Supply of HDPE Pipe PE 100 (IS 4984/1995), 8kg, 110mm Outer Dia.			
	Net Total	622.000metre	@316.40/metre	196800.80
1.012	OD99923/2022-2023			
	110 mm HDPE specials (8kg) (3% Cost of pipe)			
	Net Total	622.000metre	@9.49/metre	5902.78
1.013	100.98.155			
	Supply of HDPE Pipe PE 100 (IS 4984/1995), 10kg, 110mm Outer Dia.			
	Net Total	898.000metre	@385.56/metre	346232.88
1.014	OD100178/2022-2023			
	110mm HDPE specials (10kg) (3% Cost of pipe)			
	Net Total	898.000metre	@11.56/metre	10380.88
1.015	100.98.195			
	Supply of HDPE Pipe PE 100 (IS 4984/1995), 16kg, 110mm Outer Dia.			
	Net Total	2201.000metre	@557.74/metre	1227585.74
1.016	OD100207/2022-2023			
	Specials for 110mm HDPE 16kg			
	Net Total	2201.000metre	@16.73/metre	36822.73
1.017	100.98.436			
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Kinetic Air Valve Type DK, Size 80mm.			
	Net Total	3.000no	@11748.57/no	35245.71
1.018	100.98.444			
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Large Orifice Type S2, Size 50mm.			
	Net Total	1.000no	@6110.65/no	6110.65
1.019	100.98.445			
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Double Orifice Type DS2, Size 40mm.			

SI No	Specification	Quantity	Rate	Amount
	Net Total	9.000no	@6950.42/no	62553.78
1.020	100.98.440			
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm.			
	Net Total	58.000no	@5636.76/no	326932.08
1.021	100.98.475			
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.0, Size 300mm.			
	Net Total	1.000no	@40473.63/no	40473.63
1.022	100.98.474			
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.0, Size 250mm.			
	Net Total	1.000no	@32125.93/no	32125.93
1.023	100.98.473			
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.0, Size 200mm.			
	Net Total	1.000no	@21987.20/no	21987.20
1.024	100.98.472			
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.0, Size 150mm.			
	Net Total	1.000no	@12424.57/no	12424.57
1.025	100.98.469			
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.0, Size 80mm.			
	Net Total	28.000no	@6136.20/no	171813.60
			<b>Heading Total(Rs)</b>	4455484.55
<b>2 Supplying , Laying and commissioning of Distribution- Working charges</b>				
2.001	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 1.5m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering, etc., and disposing of surplus excavated soil as directed, within a lead of 50m, in all kinds of soil.			
	Net Total	22696.515cu m	@579.88/cum	13161255.12
2.002	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 1.5m, including getting out the excavated soil, and then returning the soil as required, in layers not			

SI No	Specification	Quantity	Rate	Amount
	exceeding 20cm 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, in Ordinary Rock.			
	Net Total	4814.703cum	@842.08/cum	4054365.10
2.003	100.2.3			
	Excavating trenches of required width for pipes, cables, etc.. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering, etc., and disposing of surplus excavated soil as directed, within a lead of 50m, in Medium Rock Requiring Blasting.			
	Net Total	1604.901cum	@1043.15/cum	1674152.48
2.004	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 1.5m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering, etc., and disposing of surplus excavated soil as directed, within a lead of 50m, in Hard Rock where Blasting is Prohibited.			
	Net Total	1604.901cum	@1624.47/cum	2607113.53
2.005	100.8.1			
	Fencing one side of trenches, 1.50m height with two rows of 10cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2m intervals.			
	Net Total	50000.000metre	@28.84/metre	1442000.00
2.006	100.59.1			
	Cutting the bituminous / concrete roads with cutting machine for a minimum depth of 200mm along the sides of proposed alignment of the pipe to be laid without causing any damage to other utilities, including the charges for hire and conveyance of tools and plant, cost of consumables and charges for lighting, watching, ribbon fencing, caution boards, traffic diversion, and as per the direction of departmental officers etc. complete, before carrying out the demolition of bituminous / concrete road by mechanical means and carrying out the excavation.			
	Net Total	2400.000metre	@31.77/metre	76248.00
2.007	15.59			
	Dismantling of flexible pavement ( bituminous courses ) by mechanical means and disposal of dismantled material up to a lead of 1 kilo metre, as per direction of Engineer-in-charge.			
	Net Total	972.000cum	@394.70/cum	383648.40
2.008	15.2.2			
	Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in-Charge. Nominal concrete 1:4:8 leaner mix ( including equivalent design mix)			

SI No	Specification	Quantity	Rate	Amount
	Net Total	405.000cum	@1318.13/cum	533842.65
2.009	18.12.8			
	Providing and fixing G.I. pipes complete with G.I fittings including trenching and refilling etc. External work 80 mm dia nominal bore			
	Net Total	13467.000metre	@1064.49/metre	14335486.83
2.010	100.10.1			
	Laying HDPE pipes (IS : 4984) on land portion including conveying within initial lead and aligning the pipes, electro-fusion welding using automatic or semi-automatic electrofusion machines, testing the pipeline thus fabricated to suit the hydraulic working pressure and after testing, aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and levelling the trenches including all labour charge, hire for appliances etc., complete but excluding cost of pipe and fittings: 90mm Nominal Outer Diameter pipes.			
	Net Total	39263.000metre	@97.37/metre	3823038.31
2.011	100.10.2			
	Laying HDPE pipes (IS : 4984) on land portion including conveying within initial lead and aligning the pipes, electro-fusion welding using automatic or semi-automatic electrofusion machines, testing the pipeline thus fabricated to suit the hydraulic working pressure and after testing, aligning the pipeline, lowering the pipe in position into the trenches already made, testing the line to suitable pressure with potable water before back filling and levelling the trenches including all labour charge, hire for appliances etc., complete but excluding cost of pipe and fittings: 110mm Nominal Outer Diameter Pipes.			
	Net Total	3721.000metre	@132.06/metre	491395.26
2.012	100.14.5			
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 300mm diameter Ductile Iron Class K-9 Pipes.			
	Net Total	1524.000metre	@214.16/metre	326379.84
2.013	18.70.5			
	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket: 300 mm dia pipe			
	Net Total	280.000joint	@430.66/joint	120584.80
2.014	18.30.7			
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints: 300 mm diameter pipe			
	Net Total	4.000no	@603.77/no	2415.08
2.015	OD113332/2022-2023			

SI No	Specification	Quantity	Rate	Amount
	Labour for cutting DI pipe with steel saw 300 mm diameter of DI Pipe			
	Net Total	40.000Each Cut	@1115.23/Each Cut	44609.20
2.016	100.35.5			
	Testing 300mm DI/CI pipeline with potable water to the required test pressure. 300 mm dia Observed Data derived from item no.1023 of PHED DATA			
	Net Total	1524.000metr e	@57.78/metre	88056.72
2.017	100.14.4			
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 250mm diameter Ductile Iron Class K-9 Pipes.			
	Net Total	2544.000metr e	@170.23/metre	433065.12
2.018	18.70.4			
	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:250 mm dia pipes			
	Net Total	465.000joint	@329.85/joint	153380.25
2.019	18.30.6			
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:250 mm diameter pipe			
	Net Total	5.000no	@595.56/no	2977.80
2.020	OD113323/2022-2023			
	Labour for cutting DI pipe with steel saw 250 mm diameter of DI Pipe			
	Net Total	60.000Each Cut	@559.11/Each Cut	33546.60
2.021	100.35.4			
	Testing 250mm DI/CI pipeline with potable water to the required test pressure . 250 mm dia Observed Data derived from item no.1022 of PHED DATA			
	Net Total	2544.000metr e	@53.00/metre	134832.00
2.022	100.14.3			
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 200mm diameter Ductile Iron Class K-9 Pipes.			
	Net Total	3326.000metr e	@127.49/metre	424031.74
2.023	18.70.3			
	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron			

SI No	Specification	Quantity	Rate	Amount
	Pipes including testing of joints and including the cost of rubber gasket:200 mm dia pipes			
	Net Total	610.000joint	@270.11/joint	164767.10
2.024	18.30.5			
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:200 mm diameter pipe			
	Net Total	6.000no	@436.82/no	2620.92
2.025	OD113324/2022-2023			
	Labour for cutting DI pipe with steel saw 200 mm diameter of DI Pipe			
	Net Total	60.000Each Cut	@449.61/Each Cut	26976.60
2.026	100.35.3			
	Testing 200mm DI/CI pipeline with potable water to the required test pressure 200 mm dia Observed Data derived from item no.1020 of PHED DATA			
	Net Total	3326.000metr e	@41.66/metre	138561.16
2.027	100.14.2			
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 150mm diameter Ductile Iron Class K-9 Pipes.			
	Net Total	1489.000metr e	@91.51/metre	136258.39
2.028	18.70.2			
	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:150 mm dia pipes			
	Net Total	275.000joint	@184.10/joint	50627.50
2.029	18.30.4			
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:150 mm diameter pipe			
	Net Total	3.000no	@402.30/no	1206.90
2.030	OD113325/2022-2023			
	Labour for cutting DI pipe with steel saw 150 mm diameter of DI Pipe			
	Net Total	15.000Each Cut	@337.10/Each Cut	5056.50
2.031	100.35.2			
	Testing 150mm DI/CI pipeline with potable water to the required test pressure 150 mm dia Observed Data derived from item no.1018 of PHED DATA			
	Net Total	1489.000metr	@32.86/metre	48928.54

SI No	Specification	Quantity	Rate	Amount
		e		
2.032	18.69.1			
	Providing and laying D.I Specials of Class K - 12 suitable for mechanical jointing as per IS : 9523 :Upto 600 mm dia			
	Net Total	5.730quintal	@22071.58/quintal	126470.15
2.033	18.68.1			
	Providing and laying D.I specials of class K - 12 suitable for push - on jointing as per IS : 9523 :Upt 600 mm dia			
	Net Total	115.360quintal	@21003.05/quintal	2422911.85
2.034	100.32.4			
	Conveying and fixing C. I. Double Acting Air Valve of approved quality with bolts, nuts, rubber insertions etc., complete, but excluding the cost of air valve (tail pieces, if required, will be paid separately): 80mm Double Acting Air Valve.			
	Net Total	3.000no	@229.21/no	687.63
2.035	100.32.3			
	Conveying and fixing C. I. Double Acting Air Valve of approved quality with bolts, nuts, rubber insertions etc., complete, but excluding the cost of air valve (tail pieces, if required, will be paid separately): 50mm Double Acting Air Valve.			
	Net Total	1.000no	@229.21/no	229.21
2.036	100.32.2			
	Conveying and fixing C. I. Single Acting Air Valve of approved quality with bolts, nuts, rubber insertions etc., complete, but excluding the cost of air valve (tail pieces, if required, will be paid separately): 40mm Single Acting Air Valve.			
	Net Total	9.000no	@184.44/no	1659.96
2.037	100.32.1			
	Conveying and fixing C. I. Single Acting Air Valve of approved quality with bolts, nuts, rubber insertions etc., complete, but excluding the cost of air valve (tail pieces, if required, will be paid separately): 25mm Single Acting Air Valve.			
	Net Total	58.000no	@146.63/no	8504.54
2.038	100.31.1.7			
	Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 300mm diameter, Class I.			
	Net Total	1.000no	@2708.08/no	2708.08
2.039	100.31.1.6			
	Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 250mm diameter, Class I.			
	Net Total	1.000no	@2304.80/no	2304.80



SI No	Specification	Quantity	Rate	Amount
2.040	100.31.1.5			
	Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 200mm diameter, Class I.			
	Net Total	1.000no	@1625.85/no	1625.85
2.041	100.31.1.4			
	Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 150mm diameter, Class I.			
	Net Total	1.000no	@1253.32/no	1253.32
2.042	100.31.1.1			
	Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 80mm diameter, Class I.			
	Net Total	28.000no	@613.80/no	17186.40
2.043	100.37.9.1			
	In situ fabrication of M.S. pipes of size 300mm (I.D.) using 8mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete.			
	Net Total	20.000metre	@8154.17/metre	163083.40
2.044	100.37.9.2			
	Fabricating M.S. flanges of diameter 300mm using 12mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	8.000no	@3012.19/no	24097.52
2.045	100.37.9.3			
	Cutting 300mm (I.D.) M.S. pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	10.000no	@326.40/no	3264.00
2.046	100.37.9.4			
	Welding 300mm (I.D.) M.S. pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	10.000no	@1233.75/no	12337.50
2.047	100.37.9.5			
	Grinding cut and weld edges of 300mm (I.D.) M.S. pipes during fabrication work including all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			

SI No	Specification	Quantity	Rate	Amount
	Net Total	20.000no	@231.74/no	4634.80
2.048	100.37.8.1 In situ fabrication of M.S. pipes of size 250mm (I.D.) using 8mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete.			
	Net Total	25.000metre	@7163.12/metre	179078.00
2.049	100.37.8.2 Fabricating M.S. flanges of diameter 250mm using 12mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	10.000no	@2555.47/no	25554.70
2.050	100.37.8.3 Cutting 250mm (I.D.) M.S. pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	12.000no	@274.74/no	3296.88
2.051	100.37.8.4 Welding 250mm (I.D.) M.S. pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	12.000no	@1038.53/no	12462.36
2.052	100.37.8.5 Grinding cut and weld edges of 250mm (I.D.) M.S. pipes during fabrication work including all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	24.000no	@195.07/no	4681.68
2.053	100.37.7.1 In situ fabrication of M.S. pipes of size 200mm (I.D.) using 8mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete.			
	Net Total	33.000metre	@6165.53/metre	203462.49
2.054	100.37.7.2 Fabricating M.S. flanges of diameter 200mm using 12mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	12.000no	@2081.10/no	24973.20
2.055	100.37.7.3			

SI No	Specification	Quantity	Rate	Amount
	Cutting 200mm (I.D.) M.S. pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	16.000no	@223.11/no	3569.76
2.056	100.37.7.4			
	Welding 200mm (I.D.) M.S. pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	16.000no	@843.32/no	13493.12
2.057	100.37.7.5			
	Grinding cut and weld edges of 200mm (I.D.) M.S. pipes during fabrication work including all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	32.000no	@158.40/no	5068.80
2.058	100.37.6.1			
	In situ fabrication of M.S. pipes of size 150mm (I.D.) using 8mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete.			
	Net Total	15.000metre	@5174.49/metre	77617.35
2.059	100.37.6.2			
	Fabricating M.S. flanges of diameter 150mm using 12mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	6.000no	@1544.03/no	9264.18
2.060	100.37.6.3			
	Cutting 150mm (I.D.) M.S. pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	8.000no	@171.45/no	1371.60
2.061	100.37.6.4			
	Welding 150mm (I.D.) M.S. pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	8.000no	@648.09/no	5184.72
2.062	100.37.6.5			
	Grinding cut and weld edges of 150mm (I.D.) M.S. pipes during fabrication work including all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	16.000no	@121.73/no	1947.68

SI No	Specification	Quantity	Rate	Amount	
2.063	2.6.1				
	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil				
		Net Total	96.000cum	@223.41/cum	21447.36
2.064	4.1.3				
	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)				
		Net Total	60.160cum	@8340.91/cum	501789.15
2.065	5.1.2				
	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size)				
		Net Total	53.751cum	@9483.13/cum	509727.72
2.066	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	250.000sqm	@748.62/sqm	187155.00
2.067	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	344.700sqm	@350.00/sqm	120645.00
2.068	5.22.6				
	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more				
		Net Total	3240.000kilo gram	@102.61/kilogram	332456.40
2.069	16.83				
	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.				
		Net Total	900.000sqm	@115.55/sqm	103995.00
2.070	16.84				
	Laying old cement concrete interlocking paver blocks of any design/ shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost.)				

SI No	Specification	Quantity	Rate	Amount
	Net Total	720.000sqm	@398.31/sqm	286783.20
2.071	16.68			
	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M - 30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.			
	Net Total	180.000sqm	@1055.86/sqm	190054.80
			<b>Heading Total(Rs)</b>	50539467.60
<b>3</b>	<b>Providing FHTCs</b>			
3.001	100.60.13.4.2			
	Providing 15mm (1/2 inch) house connection with 15mm water meter from existing AC / GI mains up to 125 mm dia., up to a length of 5m using 20mm ( 1/2 inch ) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, GI / MS Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.			
	Net Total	224.000no	@7250.47/no	1624105.28
3.002	100.60.13.6.2			
	Providing 20mm (3/4 inch) house connection with 15mm water meter from existing AC / GI mains up to 125 mm dia., up to a length of 5 m using 25mm ( 3/4 inch ) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, GI / MS Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.			
	Net Total	336.000no	@8133.95/no	2733007.20
3.003	100.60.13.1.2			
	Providing 15mm (1/2 inch) house connection with 15mm water meter from existing PVC / HDPE mains up to 110 mm dia., up to a length of 5m using 20mm ( 1/2 inch ) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16			

SI No	Specification	Quantity	Rate	Amount
	Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, PVC Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.			
	Net Total	782.000no	@7137.54/no	5581556.28
3.004	100.60.13.3.2			
	Providing 20mm (3/4 inch) house connection with 15mm water meter from existing PVC / HDPE mains up to 110 mm dia., up to a length of 5m using 25mm ( 3/4 inch ) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers, PVC Service Saddle of suitable size etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter and weather with ISI mark resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.			
	Net Total	1174.000no	@8021.00/no	9416654.00
3.005	100.60.14.7.2			
	Providing 15mm (1/2 inch) house connection with 15mm water meter from existing CI mains from 150mm to 200mm dia., up to a length of 5 m using 20mm ( 1/2 inch ) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full way wheel valve, bend, MTA, FTA, couplers etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.			
	Net Total	80.000no	@8624.50/no	689960.00
3.006	100.60.14.9.2			
	Providing 20mm (3/4 inch) house connection with 15mm water meter from existing CI mains from 150mm to 200mm dia., up to a length of 5 m using 25mm ( 3/4 inch ) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression / GM / Brass specials viz. brass ferrule, brass hexagonal nipple, GM full			

SI No	Specification	Quantity	Rate	Amount
	way wheel valve, bend, MTA, FTA, couplers etc. and connecting with the mains, testing the joints etc. complete including trenching and refilling in all kinds of soil up to a depth of 1.50m for main line tracing and trench of average cross section 0.3m x 0.75m for laying connection pipe and service pipe, fixing water meter, lighting, watching, providing caution boards, traffic control etc. complete including cost of materials, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Multijet water meter with ISI mark and weather resistant PP / PE meter box of minimum size 300mm x 200mm x 150mm, but excluding charges for cutting the concrete / tarred / bituminous roads etc, and as per the direction of the departmental officers.			
	Net Total	118.000no	@9507.98/no	1121941.64
3.007	100.60.21.1.1			
	Providing 15mm ( 1/2 inch ) GM Air Valve in the water meter assembly for 15mm water connection, using 20mm ( 1/2 inch ) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression specials including cost of materials, consumables, hire for tools and labour charges etc. complete and as per the directions of the department officers.			
	Net Total	1086.000no	@996.49/no	1082188.14
3.008	100.60.21.2.1			
	Providing 20mm ( 3/4 inch ) GM Air Valve in the water meter assembly for 20mm water connection, using 25mm ( 3/4 inch ) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PP PN 16 Compression specials including cost of materials, consumables, hire for tools and labour charges etc. complete and as per the directions of the department officers.			
	Net Total	1628.000no	@1252.94/no	2039786.32
3.009	100.60.23.3.1			
	Providing 15mm PVC Tap in the water meter assembly for 15mm ( 1/2 inch ) water connection, using 20mm ( 1/2 inch ) Indian Standard uPVC Class 6 pipes, uPVC specials and PP PN 16 Compression specials including cost of materials, consumables, hire charges for tools and labour charges etc. complete and as per the direction of departmental officers.			
	Net Total	1086.000no	@683.67/no	742465.62
3.010	100.60.23.4.1			
	Providing 15mm PVC Tap in the water meter assembly for 20mm ( 3/4 inch ) water connection, using 25mm ( 3/4 inch ) Indian Standard Class 6 uPVC pipes, uPVC specials and PP PN 16 Compression specials including cost of materials, consumables, hire charges for tools and labour charges etc. complete and as per the direction of departmental officers.			
	Net Total	1628.000no	@785.68/no	1279087.04
3.011	100.60.15.1.1			
	Providing additional length of house connection pipe using 20 mm (1/2 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PN16 specials and testing the joints etc., by trenching and refilling in all kinds of soil with trench of average cross section 0.3m x 0.75m for laying of connection pipe and service pipe, lighting, watching, providing caution boards, traffic control etc., including cost of materials, hire for tools, cost of consumables and labour charges etc. complete, but			

SI No	Specification	Quantity	Rate	Amount
	excluding the cost of cutting of concrete / tarred / bituminous roads etc., and as per the directions of the department officers.			
	Net Total	26064.000metre	@179.74/metre	4684743.36
3.012	100.60.15.2.1			
	Providing additional length of house connection pipe using 25 mm (3/4 inch) PE Pipe, PE80, PN16, Conforming to IS 4984: 2016 or later edition and PN 16 specials and testing the joints etc., by trenching and refilling in all kinds of soil with trench of average cross section 0.3m x 0.75m for laying of connection pipe and service pipe, lighting, watching, providing caution boards, traffic control etc., including cost of materials, hire for tools, cost of consumables and labour charges etc. complete, but excluding the cost of cutting of concrete / tarred / bituminous roads etc., and as per the directions of the department officers.			
	Net Total	78144.000metre	@195.27/metre	15259178.88
3.013	15.2.1			
	Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in-Charge.Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)			
	Net Total	112.500cum	@2134.74/cum	240158.25
3.014	100.59.1			
	Cutting the bituminous / concrete roads with cutting machine for a minimum depth of 200mm along the sides of proposed alignment of the pipe to be laid without causing any damage to other utilities, including the charges for hire and conveyance of tools and plant, cost of consumables and charges for lighting, watching, ribbon fencing, caution boards, traffic diversion, and as per the direction of departmental officers etc. complete, before carrying out the demolition of bituminous / concrete road by mechanical means and carrying out the excavation.			
	Net Total	6000.000metre	@31.77/metre	190620.00
3.015	15.59			
	Dismantling of flexible pavement ( bituminous courses ) by mechanical means and disposal of dismantled material up to a lead of 1 kilo metre, as per direction of Engineer-in-charge.			
	Net Total	720.000cum	@394.70/cum	284184.00
	<b>Heading Total(Rs)</b>			46969636.01
<b>4</b>	<b>Road restoration charges PWD/SH/NH</b>			
4.001	3.6			
	Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all lifts and lead upto 1000m			
	Net Total	3920.000cum	@48.79/cum	191256.80



SI No	Specification	Quantity	Rate	Amount
4.002	4.2.A.1			
	Construction of granular sub-base by providing graded material, spreading in uniform layers with a motor grader on a prepared surface, mixing by mix in-place method with rotavator at OMC, and compacting with a vibratory roller to achieve the desired density, complete as per clause 401. Grading-III -For lower sub-base - Mix in Place Method			
	Net Total	3248.000cum	@3283.03/cum	10663281.44
4.003	4.12			
	Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.			
	Net Total	288.000cum	@3375.91/cum	972262.08
4.004	5.1.a			
	Providing and applying primer coat with bitumen emulsion ( SS) on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.70 - 1.0 kg/sqm using mechanical means.			
	Net Total	2900.000sqm	@73.49/sqm	213121.00
4.005	5.2.b			
	Providing and applying tack coat with bitumen emulsion (RS) using emulsion pressure distributor at the rate of 0.25 - 0.30 kg per sqm on the prepared Granular Surface cleaned with mechanical broom.			
	Net Total	2900.000sqm	@14.49/sqm	42021.00
4.006	5.3.2.a			
	Providing and laying bituminous macadam with 80-100 TPH hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading premixed with a bituminous binder (VG 30), transported to the site, laid over a previously prepared surface with paver finisher to the required grade, level, and alignment and rolled as per clauses 501.6 and 501.7 to achieve the desired compaction For Grading II - (19 mm nominal size)			
	Net Total	75.000cum	@8758.31/cum	656873.25
4.007	5.2.a			
	Providing and applying tack coat with bitumen emulsion( RS) using emulsion pressure distributor at the rate of 0.20 - 0.30 kg per sqm on the prepared bituminous surface cleaned with mechanical broom.			
	Net Total	1500.000sqm	@11.95/sqm	17925.00
4.008	5.6.2.a			
	Providing and laying bituminous concrete with 80-100 TPH hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with a bituminous binder( NRMB) @ 5.4 percent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level, and alignment, rolling with smooth			

SI No	Specification	Quantity	Rate	Amount
	wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects For Grading - II (13.2 mm Nominal Size)			
	Net Total	45.000cum	@13387.00/cum	602415.00
4.009	5.7.1			
	Providing, laying and rolling of close-graded premix surfacing material of 20 mm thickness composed of 11.2 mm to 0.09 mm (Type-A) aggregates using viscosity grade bitumen ( VG - 30) to the required line, grade, and level to serve as wearing course on a previously prepared base, including mixing in a suitable HMP of appropriate capacity not less than 75 tonnes/hour., laying and rolling with a Smooth wheeled roller 8-10 tonne capacity, and finishing to the required level and grade.			
	Net Total	1400.000sqm	@211.89/sqm	296646.00
4.010	5.8.a			
	Providing and laying surface dressing as wearing course in single coat using crushed stone aggregates of specified size on a layer of bituminous binder (VG 30) laid on the prepared surface and rolling with 8-10 tonne smooth wheeled steel roller. Grading I - 19 mm nominal chipping size			
	Net Total	1400.000sqm	@113.75/sqm	159250.00
4.011	12.4			
	Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregate 40 mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days.			
	Net Total	100.000cum	@6718.30/cum	671830.00
4.012	12.8.B.1			
	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications &lt;br&gt; PCC Grade M20&lt;br&gt;			
	Net Total	50.000cum	@8377.76/cum	418888.00
			<b>Heading Total(Rs)</b>	14905769.57
<b>5</b>	<b>Road restoration charges LSGD</b>			
5.001	3.5.3			
	Excavation in Soil using Hydraulic Excavator and Tippers with disposal upto 1000 m &lt;br&gt; Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross-sections, and transporting to the embankment location with a lift upto 1.5 m and lead upto 1000 m as per Technical Specification Clause 302.3			
	Net Total	1245.000cum	@37.83/cum	47098.35
5.002	4.1.A.1			
	Granular Sub-base with Well Graded Material (Table 400.1) &lt;br&gt; (A) By Mix in Place Method &lt;br&gt; Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification			

SI No	Specification	Quantity	Rate	Amount
	Clause 401. &lt;br&gt; (i) For Grading I Material			
	Net Total	660.000cum	@3094.44/cum	2042330.40
5.003	4.9			
	Wet Mix Macadam &lt;br&gt; Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tipper to site, laying in uniform layers in sub-base/base course on a well prepared sub-base and compacting with smooth wheel roller of 80 to 100kN weight to achieve the desired density including lighting, barricading and maintenance of diversion, etc as per Tables 400.11 & amp; 400.12 and Technical Specification Clause 406. &lt;br&gt; By Mechanical Means with 1 km lead			
	Net Total	360.000cum	@3459.12/cum	1245283.20
5.004	5.1.1a			
	Prime Coat :- Low porosity &lt;br&gt; Providing and applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.70-1.0 kg/sqm using mechanical means as per Technical Specification Clause 502			
	Net Total	3000.000sqm	@88.50/sqm	265500.00
5.005	5.2.3a			
	Tack Coat &lt;br&gt; Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 kg per sqm on the prepared granular surfaces treated with primer & amp; cleaned with Hydraulic broom as per Technical Specification Clause 503.			
	Net Total	3000.000sqm	@16.11/sqm	48330.00
5.006	5.9.1.2a			
	20mm thick Open-Graded Premix Carpet using Bituminous (penetration grade/modified bitumen) Binder - Bitumen S-65 &lt;br&gt; Providing, laying and rolling of open-graded premix carpet of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates either using penetration grade bitumen or emulsion to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a three wheel 80-100 kN static roller capacity, finished to required level and grades to be followed by seal coat of either Type A or Type B or Type C as per Technical Specification Clause 508. &lt;br&gt; Case - I By Manual Means &lt;br&gt; (II) Bitumen (S-65)			
	Net Total	3000.000sqm	@206.69/sqm	620070.00
5.007	5.12.A.3.2a			
	Seal Coat - Manual Means - Type C - Bitumen S-65 &lt;br&gt; Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A, Type B and Type C as per Technical Specification Clause 510 &lt;br&gt; A. By Manual Means :- Case - III : Type C &lt;br&gt; (II) Bitumen (S-65)			
	Net Total	3000.000sqm	@87.63/sqm	262890.00
5.008	11.4.3.1			
	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & amp;			

SI No	Specification	Quantity	Rate	Amount
	1203 III. P.C.C. grade M 20 (i) Nominal mix (1:2:4)			
	Net Total	225.000cum	@8633.95/cum	1942638.75
	<b>Heading Total(Rs)</b>			6474140.70
	<b>Total Estimation PAC</b>			163444498.4 3
SI No	Description	Percentage/LS		Amount
<b>6 Lumsum Heading</b>				
6.001	Water connection charges (KWA)			
		null	null%	2428830.00
	<b>Total Lumsum Amount</b>			2428830.00
<b>7 Extra Charges</b>				
6.001	Provision for GST			
		163444498.43	18.00%	29420009.7 2
	<b>Grand Total</b>			195293338. 15
	<b>Round off</b>			6661.85
	<b>Rounded Total(Rs)</b>			195300000.0 0
	Rupees Nineteen Crore Fifty Three Lakh			