

DETAILED ESTIMATE

Jal Jeevan Mission (JJM)-JJM PROVIDING FHTCS TO ALL HOUSEHOLD IN ERATTAYAR AND KAMAKSHI (PART) PANCHAYATHS IN IDUKKI DISTRICTS-JJM PROVIDING FHTC'S TO ALL HOUSEHOLD IN ERATTAYAR AND KAMAKSHI (PART) PANCHAYATHS IN IDUKKI DISTRICTS. Supply and laying of RWPM and CWPM-Pipeline
Work

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
1	SUPPLYING AND LAYING OF 300 MM RWPM and 250 MM TO 200MM D.I K9 PIPE CWPM - Appendix A - Cost of materials						
1.001	100.98.117						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.						
	deduction for ms pipe						
		-1	40.000				-40.000
	Total						-40.000
	Clear water PM						
	WTP-Kurishummoottil pady	1	3610.000				3610.000
	Nanguthotty-vazhavara	1	3566.000				3566.000
	Pallikkanam-Thenali city	1	1910.000				1910.000
	spare	1	183.000				183.000
	Total						9269.000
	Total Quantity in metre						9229.000
1.002	100.98.118						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 250mm Dia.						
	deduction for 250 mm MS						
	deduction	-1	40.000				-40.000
	Total						-40.000
	250 mm DI supply						
	wtp-pallikkanam	1	3015.000				3015.000
	wtp-nanguthotty	1	5053.000				5053.000
	spare	1	167.000				167.000
	Total						8235.000
	Total Quantity in metre						8195.000
1.003	100.98.119						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 300mm Dia.						
	Supply						
	300 MM D I pipe	1	495.000				495.000
	Total						495.000
	deduction for ms pipe						
	300 mm MS pipe	-1	30.000				-30.000
	Total						-30.000
	Total Quantity in metre						465.000
1.004	100.98.461						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.						
	sluice valves						
	sluice valves	3					3.000
	Total						3.000
	Total Quantity in no						3.000
1.005	100.98.462						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 250mm.						
	250 mm valve						
	scour valves in cwpm	2					2.000
	Total						2.000
	Total Quantity in no						2.000
1.006	100.98.463						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 300mm.						
	.						
		1					1.000
	Total						1.000
	Total Quantity in no						1.000
1.007	100.98.441						
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 40mm.						
	supply of CI Air valve						
		30					30.000
	Total						30.000
	Total Quantity in no						30.000
1.008	100.98.446						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Double Orifice Type DS2, Size 50mm.						
	AIR VALVE						
	50 MM	22					22.000
	Total						22.000
	Total Quantity in no						22.000
1.009	100.98.450						
	Supply of CI Air Valve with Flanges, Conforming to IS 14845 - 2000, Kinetic Air Valve Type DS1, Size 80mm.						
	.						
		1					1.000
	Total						1.000
	Total Quantity in no						1.000
2	SUPPLYING AND LAYING OF 300 MM RWPM and 250 MM TO 200MM D.I K9 PIPE CWPM - Appendix B- Working Charges.						
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.						
	Excavating Trenches						
	WTP- Kurishummoottil pady -200 mm DI	1	3610.000	0.800	1.150	0.6500 00	2158.780
	WTP- Pallikkanam -250 mm DI	1	3015.000	0.900	1.200	0.6500 00	2116.530
	Pallikkanam - Thenalicity -200 mm	1	1910.000	0.800	1.150	0.6500 00	1142.180
	Nanguthotty- vazhavara -200 mm DI	1	3566.000	0.800	1.150	0.6500 00	2132.468
	WTP- Nankuthotty-250 mm Pumping main	1	5053.000	0.900	1.200	0.6500 00	3547.206
	WELL -To WTP- 300 mm DI pipe	1	495.000	1.000	1.250	0.6500 00	402.188
	Deduction for Tar cutting	-1	2100.000	0.800	0.300		-504.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Deduction for Concrete r cutting	-1	1996.000	0.800	0.150		-239.520
	Deduction for Interlocking paver blocks	-1	500.000	1.200	0.060		-36.000
	Total						10719.83
	Total Quantity in cum						10719.83
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 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.						
	Excavating trenches						
	WTP - Kurishumuttipadi	1	3610.000	0.800	1.150	0.2500 00	830.300
	WTP - Pallikkanam	1	3015.000	0.900	1.200	0.2500 00	814.050
	Pallikkanam-Thenalicity	1	1910.000	0.800	1.150	0.2500 00	439.300
	Nanguthotti-vazhavara	1	3566.000	0.800	1.150	0.2500 00	820.180
	WTP - Nanguthotti	1	5053.000	0.900	1.200	0.2500 00	1364.310
	RWPH-WTP 300 mm DI	1	495.000	1.000	1.250	0.2500 00	154.688
	Total						4422.828
	Total Quantity in cum						4422.828
2.003	100.2.2						
	Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5m in width or 10m2 on plan), including dressing of sides and ramming of bottoms, lift up to 1.5m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50m, in Medium Rock where Blasting is Prohibited.						
	Earth work excavation by mechanical means						
	WTP- Kurishumuttipadi 200DI	1	3610.000	0.800	1.150	0.0500 00	166.060
	WTP- Pallikkanam 250 DI	1	3015.000	0.900	1.200	0.0500 00	162.810

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Pallikkanam-Thenalidity 200 DI	1	1910.000	0.800	1.150	0.0500 00	87.860
	Nanguthotti-Vazhava 200 DI	1	3566.000	0.800	1.150	0.0500 00	164.036
	WTP-Nankuthotty-250 mm Pumping main	1	5053.000	0.900	1.200	0.0500 00	272.862
	RWPH-WTP 300 mm DI	1	495.000	1.000	1.250	0.0500 00	30.938
	Total						884.566
						Total Quantity in cum	884.566
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.						
	hard rock excavation						
	WTP-Kurishumuttillpad i - 200mm DI	1	3610.000	0.800	1.150	0.0500 00	166.060
	WTP-Pallikkanam	1	3015.000	0.900	1.200	0.0500 00	162.810
	Pallikkanam-Thenalidity-200mm DI	1	1910.000	0.800	1.150	0.0500 00	87.860
	Nanguthotti -vazhava-200mm DI	1	3566.000	0.800	1.150	0.0500 00	164.036
	WTP-Nanguthotti-250mm DI	1	5053.000	0.900	1.200	0.0500 00	272.862
	RWPH-WTP 300 mm DI	1	495.000	1.000	1.250	0.0500 00	30.938
	Total						884.566
						Total Quantity in cum	884.566
2.005	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.						
	200mm DI Pipe						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity	
	Total length of cwpm	1	9086.000			1.0000 00	9086.000	
	Total						9086.000	
	Total Quantity in metre							9086.000
2.006	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.							
	total length of CWPM 250 mmDI							
	250 mm DI laying	1	8068.000				8068.000	
	Total						8068.000	
	Total Quantity in metre							8068.000
2.007	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.							
	RWPM							
	300MM DI	1	495.000				495.000	
	Total						495.000	
	Total Quantity in metre							495.000
2.008	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.							
	Fencing							
	Fencing	1	15000.00 0				15000.00 0	
	Total						15000.00 0	
	Total Quantity in metre							15000.00 0
2.009	18.70.3							
	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:200 mm dia pipes							
	Providing push- on -joints to centrifugally cast pipe							
	200 mm DI	2150					2150.000	
	Total						2150.000	
	Total Quantity in joint							2150.000
2.010	18.70.4							

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	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						
	Push on joints 250 MM dia						
	250 MM dia	900					900.000
	Total						900.000
	Total Quantity in joint						900.000
2.011	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						
	Push on joints 300 MM dia						
	300 mm dia	90					90.000
	Total						90.000
	Total Quantity in joint						90.000
2.012	18.30.5						
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:200 mm diameter pipe						
	Providing flanged joints to double flanged pipes						
		12					12.000
	Total						12.000
	Total Quantity in no						12.000
2.013	18.30.6						
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:250 mm diameter pipe						
	providing flanged joints						
	250 mm	8					8.000
	Total						8.000
	Total Quantity in no						8.000
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						
	.						
		13					13.000
	Total						13.000
	Total Quantity in no						13.000
2.015	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						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Specials						
	200 mm DI 90 MM Bend	12				0.3200 00	3.840
	200 mm DI45 MM Bend	12				0.2600 00	3.120
	200 mm DI22.5MM Bend	18				0.2300 00	4.140
	200 mm DI 11.25MM Bend	24				0.2100 00	5.040
	200 x200 Tee	1				0.4100 00	0.410
	200 mm TP	6				0.2300 00	1.380
	250 mm DI 90 MM Bend	8				0.4800 00	3.840
	250 mm DI 45 MM Bend	6				0.3600 00	2.160
	250 mm DI 22.5 MM Bend	14				0.3200 00	4.480
	250 mm DI 11.25 MM Bend	20				0.3000 00	6.000
	250 mm *250mm AS TEE	2				0.5500 00	1.100
	250 mm TP	2				0.3200 00	0.640
	300x300 Tee	1				0.8200 00	0.820
	300 mm 90 Bend	6				0.6800 00	4.080
	300 mm 45 Bend	8				0.5000 00	4.000
	300 mm 22.5 Bend	10				0.4400 00	4.400
	300 mm 11.25 Bend	12				0.4000 00	4.800
	300 mm TP	2				0.4300 00	0.860
	Total						55.110
						Total Quantity in quintal	55.110
2.016	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						
	Mechanical joint						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity	
	200 mm	9				0.2700 00	2.430	
	250 mm	7				0.3600 00	2.520	
	300 mm	2				0.4800 00	0.960	
	Total						5.910	
	Total Quantity in quintal							5.910
2.017	OD106959/2022-2023							
	Labour for Cutting DI Pipe with steel saw 200 mm diameter DI Pipe							
	cutting							
		64					64.000	
	Total						64.000	
	Total Quantity in each							64.000
2.018	OD106971/2022-2023							
	Labour for Cutting D I pipe with steel saw .250 mm diameter DI Pipe							
	cutting							
		40					40.000	
	Total						40.000	
	Total Quantity in Each Cut							40.000
2.019	OD106978/2022-2023							
	Labour for cutting DI Pipe with steel saw 300 mm diameter DI Pipe							
	cutting							
		6					6.000	
	Total						6.000	
	Total Quantity in Each Cut							6.000
2.020	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							
	Testing 200mm DI/CI pipeline							
	Pressure Testing	1	9086.000				9086.000	
	Total						9086.000	
	Total Quantity in metre							9086.000
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							
	Testing 250mm DI/CI pipeline							

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Pressure Testing	1	8068.000				8068.000
	Total						8068.000
	Total Quantity in metre						8068.000
2.022	100.35.5						
	Testing 300mm DI/CI pipeline with potable water to the required test pressure. 300 mm dia Observed Data derived from item no.1023 of PHED DATA						
		1	495.000				495.000
	Total						495.000
	Total Quantity in metre						495.000
2.023	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.						
	Conveying and fixing C.I sluice valve						
		3					3.000
	Total						3.000
	Total Quantity in no						3.000
2.024	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.						
	D/F CI sluice valve						
	250 mm	2					2.000
	Total						2.000
	Total Quantity in no						2.000
2.025	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.						
		1					1.000
	Total						1.000
	Total Quantity in no						1.000
2.026	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.						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Fabricating MS pipes						
		1	40.000				40.000
	Total						40.000
	Total Quantity in metre						40.000
2.027	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.						
		24					24.000
	Total						24.000
	Total Quantity in no						24.000
2.028	100.37.7.3						
	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.						
	Cutting						
		50					50.000
	Total						50.000
	Total Quantity in no						50.000
2.029	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.						
	Welding						
		50					50.000
	Total						50.000
	Total Quantity in no						50.000
2.030	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.						
	Grinding						
		100				1.0000 00	100.000
	Total						100.000
	Total Quantity in no						100.000
2.031	100.37.8.1						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	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.						
	MS pipe for culvert crossing						
	250 mm MS	1	40.000				40.000
	Total						40.000
	Total Quantity in metre						40.000
2.032	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.						
	flanges						
	250 mm	16					16.000
	Total						16.000
	Total Quantity in no						16.000
2.033	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.						
	cutting						
	250 mm MS	44					44.000
	Total						44.000
	Total Quantity in no						44.000
2.034	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.						
	welding						
	250 mm three run	44					44.000
	Total						44.000
	Total Quantity in no						44.000
2.035	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.						
	grinding cut edges						
	250 mm MS	88					88.000
	Total						88.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
Total Quantity in no							88.000
2.036	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.					
		1	30.000				30.000
Total							30.000
Total Quantity in metre							30.000
2.037	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.					
		1	26.000				26.000
Total							26.000
Total Quantity in no							26.000
2.038	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.					
	Cutting	40					40.000
Total							40.000
Total Quantity in no							40.000
2.039	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.					
	Welding	40					40.000
Total							40.000
Total Quantity in no							40.000
2.040	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	No	Length	Width	Depth	Cf	Quantity
	Grinding						
		80					80.000
	Total						80.000
						Total Quantity in no	80.000
2.041	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.						
	FIXING AIR VALVE						
	40 MM	30					30.000
	Total						30.000
						Total Quantity in no	30.000
2.042	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.						
	Conveying and fixing Air valve						
		22					22.000
	Total						22.000
						Total Quantity in no	22.000
2.043	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.						
		1					1.000
	Total						1.000
						Total Quantity in no	1.000
2.044	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)						
	PCC 1:2:4						
	panchayat road restoration	1	1996.000	0.800	0.150		239.520
	Total						239.520
						Total Quantity in cum	239.520
2.045	5.1.3						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)						
	RCC 1:2:4						
	Anchor blocks	160	0.800	0.800	0.800		81.920
	Total						81.920
	Total Quantity in cum						81.920
2.046	5.9.1						
	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						
	centering and shuttering						
		160	4.000	0.800	0.800		409.600
	Total						409.600
	Total Quantity in sqm						409.600
2.047	5.22.6						
	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more						
	reinforcement						
	Anchor blocks	160	0.800	0.800	0.800	20.000 000	1638.400
	Total						1638.400
	Total Quantity in kilogram						1638.400
2.048	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.						
	Cutting Bituminous road						
		1	2100.000				2100.000
	Total						2100.000
	Total Quantity in metre						2100.000
2.049	OD108570/2022-2023						
	Dismantling manually / by mechanical means and disposal of unserviceable material within 50 metres lead as per direction of Engineer -in-Charge: Bituminous road						
	cutting Bt surface /concrete						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	cutting Bt surface /concrete	1	2100.000	0.800			1680.000
	Total						1680.000
	Total Quantity in sqm						1680.000
2.050	15.2.1						
	Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in-Charge.Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)						
	Demolishing Concrete						
		1	1996.000	0.800	0.150	1.0000 00	239.520
	Total						239.520
	Total Quantity in cum						239.520
2.051	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.						
	Interlocking paver blocks						
	Interlocking paver blocks	1	500.000	1.200			600.000
	Total						600.000
	Total Quantity in sqm						600.000
2.052	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.)						
	Interlocking paver blocks						
	Interlocking paver blocks	1	500.000	1.200			600.000
	Total						600.000
	Total Quantity in sqm						600.000
3	Appendix C - Construction of Valve Chamber						
3.001	2.8.1						
	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil						
	Earth work excavation by mechanical means						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity	
		6	1.900	1.900	1.800		38.988	
	Total						38.988	
		Total Quantity in cum						38.988
3.002	4.1.5							
	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)							
	base PCC							
	valve chamber base PCC 1:3:6	6	1.900	1.900	0.100		2.166	
	Total						2.166	
		Total Quantity in cum						2.166
3.003	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)							
	Providing and laying in position specified grade of reinforced cement concrete							
	base	6	1.900	1.900	0.150		3.249	
	wall	24	1.550	1.300	0.250		12.090	
	slab	6	1.800	1.800	0.250		4.860	
	Total						20.199	
		Total Quantity in cum						20.199
3.004	5.9.2							
	Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, buttersesses, plinth and string courses etc.							
	centering and shuttering							
	Side wall outer	6	4*1.8		1.300		56.160	
	Side wall inner	6	4*1.3		1.300		40.560	
	Total						96.720	
		Total Quantity in sqm						96.720
3.005	5.9.3							
	Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform							
	centering and shuttering							
	COVER SLAB side	6	1.800	0.250		4.000000	10.800	
	Total						10.800	
		Total Quantity in sqm						10.800

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
3.006	5.22.6						
	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more						
	Steel reinforcement for R.C.C work						
		1	20.199			80.000 000	1615.920
	Total						1615.920
	Total Quantity in kilogram						1615.920
4	Road restoration of PWD roads						
4.001	3.11						
	Removal of unserviceable soil including excavation, loading and disposal upto 1000 metres lead but excluding replacement by suitable soil which shall be paid separately as per clause 305.						
	berm cutting						
	pwd berm	1	5013.000	0.800	0.200		802.080
	SH berm	1	3600.000	0.800	0.200		576.000
	pwd CC	1	1200.000	0.800	0.400		384.000
	SH CC	1	600.000	0.800	0.500		240.000
	interlock	1	500.000	0.800	0.400		160.000
	Total						2162.080
	Total Quantity in cum						2162.080
4.002	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						
	cutting						
	pwd TC	1	180.000	0.800	0.400		57.600
	SH TC	1	120.000	0.800	0.400		38.400
	Total						96.000
	Total Quantity in cum						96.000
4.003	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						
	GSB						
	pwd TC	1	180.000	0.800	0.200		28.800

SI No	Specification	No	Length	Width	Depth	Cf	Quantity	
	SH TC	1	120.000	0.800	0.200		19.200	
	Total						48.000	
	Total Quantity in cum							48.000
4.004	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.							
	WMM							
	pwd TC	1	180.000	0.800	0.200		28.800	
	SH TC	1	120.000	0.800	0.200		19.200	
	Total						48.000	
	Total Quantity in cum							48.000
4.005	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.							
	primer coat							
	pwd TC	1	180.000	1.500			270.000	
	SH TC	1	120.000	1.500			180.000	
	Total						450.000	
	Total Quantity in sqm							450.000
4.006	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.							
	tack coat							
	pwd TC	1	180.000	1.500			270.000	
	SH TC	1	120.000	1.500			180.000	
	Total						450.000	
	Total Quantity in sqm							450.000
4.007	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)							
	bm							
	sh tc	1	120.000	1.500	0.050		9.000	

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	pwd TC	1	180.000	1.500	0.050		13.500
	Total						22.500
	Total Quantity in cum						22.500
4.008	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.						
	BM BC tack coat						
	SH TC	1	120.000	1.500			180.000
	pwd TC	1	180.000	1.500			270.000
	Total						450.000
	Total Quantity in sqm						450.000
4.009	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 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)						
	BC						
	sh tc	1	120.000	1.500	0.030		5.400
	pwd TC	1	180.000	1.500	0.030		8.100
	Total						13.500
	Total Quantity in cum						13.500
4.010	10.2						
	Maintenance of Earthen Shoulder (filling with fresh soil) Making up the loss of material/ irregularities on the shoulder to the design level by adding fresh approved soil and compacting it with appropriate equipment.						
	berm						
	pwd berm	1	5013.000	0.800	0.200		802.080
	Total						802.080
	Total Quantity in sqm						802.080
4.011	4.2.A.2						
	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-IV - For lower sub-base - Mix in Place Method						
	GSB						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	SH berm	1	3600.000	0.800	0.200		576.000
	pwd CC	1	1200.000	0.800	0.250		240.000
	SH CC	1	600.000	0.800	0.250		120.000
	interlock	1	500.000	0.800	0.300		120.000
	Total						1056.000
						Total Quantity in cum	1056.000
4.012	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.						
	CC restoration						
	pwd CC	1	1200.000	1.200	0.150		216.000
	SH CC	1	600.000	1.200	0.150		108.000
	Total						324.000
						Total Quantity in cum	324.000
4.013	12.8.B.1						
	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications
 PCC Grade M20
						
	CC restoration						
	pwd CC	1	1200.000	1.200	0.075		108.000
	SH CC	1	600.000	1.200	0.100		72.000
	Total						180.000
						Total Quantity in cum	180.000