

61377m length pipe

KERALA WATER AUTHORITY, PH CIRCLE, THRISSUR

Work Name: JJM - 2021 - 22 - Kadukutty Grama Panchayath (Phase II) - Providing FHTCs to Rural House holds by Augmentation of existing schemes

ACCEPTED SCHEDULE

Sl. No.	Item Description	Quantity	Units	Estimated Rate		TOTAL AMOUNT
				Figures	words	
1	Distribution Strengthening (COST OF MATERIALS)					
1.001	Supply of uPVC Pipe, IS 4985: 2000, 6kg/cm ² , 50mm Dia.	11894.000	metre	69.90	INR Sixty Nine and Paise Ninety Only	831390.60
1.002	Supply of uPVC Pipe, IS 4985: 2000, 6kg/cm ² , 63mm Dia.	6361.000	metre	111.80	INR One Hundred & Eleven and Paise Eighty Only	711159.80
1.003	Supply of uPVC Pipe, IS 4985: 2000, 6kg/cm ² , 75mm Dia.	5258.000	metre	157.25	INR One Hundred & Fifty Seven and Paise Twenty Five Only	826920.50
1.004	Supply of PE Pipe, PE100, PNB, 110mm dia, conforming to IS 4984/2016	27209.000	metre	316.40	INR Three Hundred & Sixteen and Paise Forty Only	8608927.60
1.005	Supply of PE Pipe, PE100, PNB, 125mm dia, conforming to IS 4984/2016	4475.000	metre	419.00	INR Four Hundred & Nineteen Only	1875025.00
1.006	Supply of PE Pipe, PE100, PNB, 160mm dia, conforming to IS 4984/2016	799.000	metre	669.20	INR Six Hundred & Eighty Nine and Paise Twenty Only	550670.90
1.007	Supply of PE Pipe, PE100, PNB, 180mm dia, conforming to IS 4984/2016	4813.000	metre	865.30	INR Eight Hundred & Sixty Five and Paise Thirty Only	3991628.90
1.008	Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.	748.500	metre	2490.42	INR Two Thousand Four Hundred & Eighty and Paise Forty Two Only	1856694.37
1.009	Supplying double flanged 200 mm DI K9 pipe	20.000	metre	3257.87	INR Three Thousand Two Hundred & Sixty Seven and Paise Eighty Seven Only	65357.40

1.01	Supply of CI Air Valve, Conforming to IS 14846 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm,	20.000000	5386.75	INR Five Thousand Six Hundred and Thirty Six and Paise Seventy Five Only	112735.00
1.011	Supply of CI Air Valve, Conforming to IS 14846 - 2000, Double Orifice Type DS2, Size 50mm,	5.000000	7547.20	INR Seven Thousand Nine Hundred & Forty Seven Only	39735.00
1.012	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 80mm,	14.000000	3624.25	INR Six Thousand Six Hundred & Twenty Four and Paise Five Only	92736.70
1.013	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 100mm,	3.000000	3003.96	INR Nine Thousand & Thirty Three and Paise Ninety Five Only	27011.85
1.014	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 150mm,	2.000000	13328.75	INR Thirteen Thousand Three Hundred & Ninety Six and Paise Seventy Five Only	26793.50
1.015	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm,	2.000000	21720.65	INR Twenty Three Thousand Seven Hundred & Twenty Three and Paise Sixty Five Only	47447.30
1.016	Cost of PVC specials	1.000000	66255.54	INR Sixty Five Thousand Two Hundred & Fifty Eight and Paise Fifty Four Only	65258.54
1.017	Cost of HDPE specials including PE coupler	1.000000	75443.26	INR Seven Lakh Fifty Four Thousand Nine Hundred & Thirty One and Paise Twenty Six Only	754931.26
2	WORKING CHARGES				
2.03	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 setting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc, and disposing of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil	9872.150000	556.51	INR Five Hundred & Fifty Five and Paise Fifty One Only	9494078.05

2.002	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.	18159.140	cum	309.76	INR Eight Hundred & Six and Paise Seventy Six Only	14850057.79
2.003	Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 m ² on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Medium Rock (blasting prohibited)	3690.659	cum	1559.81	INR One Thousand & Fifty Nine and Paise Ninety One Only	3911796.38
2.004	Fencing one side of trenches, 1.50 m height with two rows of 10 cm plastic caution tape in vertical casualina pole (girth 15cm to 24cm) fixed at 2 m intervals.	15575.000	metre	28.01	INR Twenty Eight and Paise One Only	435255.75
2.005	Laying UPVC pipes of class 2 to class 6 and specials, lowering to the trenches already made, placing in position aligning the pipe line to the lines and levels and joining the pipes and specials with solvent cement and testing the pipe line with water to the required test pressure (excluding cost of pipes and specials) 50 mm nominal outer dia pipes.	11894.000	metre	47.59	INR Forty Seven and Paise Fifty Nine Only	566035.46
2.006	Laying UPVC pipes of class 2 to class 6 and specials, lowering to the trenches already made, placing in position aligning the pipe line to the lines and levels and joining the pipes and specials with solvent cement and testing the pipe line with water to the required test pressure (excluding cost of pipes and specials) 63 mm nominal outer dia pipes.	6361.000	metre	37.05	INR Eighty Seven and Paise Five Only	553725.05

2.007	Laying UPVC pipes of class 2 to class 6 and specials, lowering to the trenches already made, placing in position, aligning the pipe line to the lines and levels and joining the pipes and specials with solvent cement and jointing the pipe line with water to the required test pressure (excluding cost of pipes and specials), 75 mm nominal outer dia pipes.	5255 220 meters	87.25 (NR) Eighty Seven and Paise Five Only	457708.90
2.008	Laying HDPE pipes (IS : 4984) on land portion including conveying within initial lead and signing the pipes, electro-fusion welding using automatic or semi automatic electro-fusion machines, testing the pipes line 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 pipe in position pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings, 110 mm OD HDPE pipe	27205 200 meters	126.51 (NR) One Hundred & Twenty Six and Paise Fifty One Only	3442210.59
2.009	Laying HDPE pipes (IS : 4984) on land portion including conveying within initial lead and signing the pipes, electro-fusion welding using automatic or semi automatic electro-fusion machines, testing the pipe line 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 pipe in position pressure with potable water before back filling and leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings, 125 mm OD HDPE pipe	4475 300 meters	133.69 (NR) One Hundred & Thirty Three and Paise Sixty Nine Only	598262.75

2.01	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 electro-fusion machines, testing the pipe line 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 leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings. 160 mm OD HDPE pipe	799,000	metre	215.18	INR Two Hundred & Fifteen and Paise Eighteen Only	171928.82
2.011	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 electro-fusion machines, testing the pipe line 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 leveling the trenches including all labour charge, hire for appliances etc. complete but excluding cost of pipe and fittings. 160 mm OD HDPE pipe	4613,000	metre	255.55	INR Two Hundred & Sixty Five and Paise Fifty Five Only	1224982.15
2.012	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials :200 mm dia Ductile Iron Class K-9 Pipes	732,000	metre	122.10	INR One Hundred & Twenty Two and Paise Ten Only	89377.20
2.013	Conveying and laying Double Flanged (Screwed / Welded) Centrifugally (Spun) Ductile Iron Pipes of Class K-9 conforming to IS: 8329-K-9 conforming to IS: 8329 excluding cost of pipe and specials: 200 mm dia Ductile Iron Double Flanged*	20,000	metre	147.18	INR One Hundred & Forty Seven and Paise Eighteen Only	2943.60
2.014	Providing and fixing G.I. pipes complete with G.I fittings including trenching and refilling etc. External work 40 mm dia nominal bore	1500,000	metre	568.73	INR Five Hundred & Sixty Eight and Paise Seventy Three Only	853095.00
2.015	Providing and fixing G.I. pipes complete with G.I fittings including trenching and refilling etc. External work 50 mm dia nominal bore	700,000	metre	665.34	INR Six Hundred & Sixty Five and Paise Thirty Four Only	465738.00

2.016	Providing and fixing G.I. pipes complete with G.I fittings including trenching and refilling etc. External work:65 mm dia nominal bore	560.000/-	842.83	INR Eight Hundred & Forty Two and Paise Eighty Three Only	471994.80
2.017	Providing and fixing G.I. pipes complete with G.I fittings including trenching and refilling etc. External work:90 mm dia nominal bore	640.000/-	1019.84	INR One Thousand & Ninety and Paise Eighty Four Only	652697.60
2.018	Supplying conveying and fixing GI Pipe with GI Fittings - including cost of pipe -external work 100mm dia nominal bore B class ISI marked pipe	120.000/-	1570.53	INR One Thousand Five Hundred & Seventy and Paise Fifty Three Only	169463.60
2.019	Providing and fixing G.I. pipes complete with G.I fittings including trenching and refilling etc. External work-120mm dia nominal bore	60.000/-	2109.89	INR Two Thousand One Hundred & Nine and Paise Eighty Nine Only	126593.40
2.02	Supplying conveying and fixing GI Pipe with GI Fittings - including cost of pipe -external work 150mm dia nominal bore B class ISI marked pipe	120.000/-	2486.62	INR Two Thousand Four Hundred & Eighty Six and Paise Sixty Two Only	290394.40
2.021	Cutting DI pipe with steel saw - 200 mm dia	10.000/-	430.70	INR Four Hundred & Thirty and Paise Seventy Only	4907.00
2.022	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	140.000/-	258.77	INR Two Hundred & Fifty Eight and Paise Seventy Seven Only	36227.80
2.023	Providing flanged joints to double flanged C.I./D.I pipes and specials, including testing of joints:200 mm diameter pipe	10.000/-	418.50	INR Four Hundred & Eighteen and Paise Fifty Only	4185.00
2.024	Providing flanged joints to double flanged 50mm GI pipes and specials including cost of flanges, welding, grinding and testing of joints.	14.000/-	1425.16	INR One Thousand Four Hundred & Twenty Six and Paise Sixteen Only	19956.24
2.025	Providing flanged joints to double flanged 65mm GI pipes and specials including cost of flanges, welding, grinding and testing of joints.	12.000/-	1774.05	INR One Thousand Seven Hundred & Seventy Four and Paise Five Only	21266.60
2.026	Providing flanged joints to double flanged 80mm GI pipes and specials including cost of flanges, welding, grinding and testing of joints.	13.000/-	2156.75	INR Two Thousand One Hundred & Fifty Six and Paise Seventy Five Only	26037.75

2.027	Providing flanged joints to double flanged 100mm GI pipes and specials including cost of flanges, welding, grinding and testing of joints.	3,000	No		2672.32	INR Two Thousand Six Hundred & Seventy Two and Paise Thirty Two Only	8016.96
2.028	Providing flanged joints to double flanged 125mm GI pipes and specials including cost of flanges, welding, grinding and testing of joints.	2,000	No		3249.12	INR Three Thousand Two Hundred & Forty Nine and Paise Twelve Only	6498.24
2.029	Providing flanged joints to double flanged 150mm GI pipes and specials including cost of flanges, welding, grinding and testing of joints.	3,000	No		4216.37	INR Four Thousand Two Hundred & Sixteen and Paise Thirty Seven Only	12649.11
2.03	Conveying and fixing C I Single acting Air Valve of approved quality with bolts, nuts, rubber insertions etc. excluding the cost of air valve (the tail pieces if required will be paid separately): 25 mm Single acting Air Valve	20,000	Nos		140.47	INR One Hundred & Forty and Paise Forty Seven Only	2809.40
2.031	Conveying and fixing C I Single acting Air Valve of approved quality with bolts, nuts, rubber insertions etc. excluding the cost of air valve (the tail pieces if required will be paid separately): 50 mm Double acting Air Valve	5,000	Nos		219.59	INR Two Hundred & Nineteen and Paise Fifty Nine Only	1097.95
2.032	Conveying and fixing C I sluice valves (with cap) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the tail pieces if required will be paid separately): 80 mm diameter. Class I'	14,000	Nos		525.34	INR Six Hundred & Twenty Five and Paise Thirty Four Only	8754.76
2.033	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): 100 mm diameter. Class II'	3,000	Nos		957.74	INR Nine Hundred & Fifty Seven and Paise Seventy Four Only	2873.22
2.034	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): 150 mm diameter. Class II'	2,000	Nos		1283.63	INR One Thousand Two Hundred & Eighty Three and Paise Eighty Three Only	2567.66

2.035	Conveying and fixing C.I. sluice valves (with caps) by providing complete with bolts, nuts, rubber insertions etc. excluding the cost of valve (the lot pieces if required will be paid separately) : 200 mm diameter, Class II'	1729.52	INR One Thousand Seven Hundred & Twenty Nine and Paise Fifty Two Only	3459.04
2.036	Providing and laying D.I specials of class K - 12 suitable for push - on jointing as per IS : 9523 : Up to 600mm dia	20121.56	INR Twenty Thousand One Hundred & Twenty One and Paise Fifty Six Only	354159.59
2.037	Centering and shuttering including strutting, etc. and removal of form for Foundations, footings, bases of columns, etc for mass concrete	335.31	INR Three Hundred & Thirty Five and Paise Thirty One Only	81601.04
2.038	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	7990.86	INR Seven Thousand Nine Hundred & Ninety and Paise Eighty Six Only	382498.50
2.039	Testing 200mm DI/CI pipeline with potable water to the required test pressure 200 mm dia	39.90	INR Thirty Nine and Paise Ninety Only	29206.80
2.04	Joining 200mm DI pipes laid in trenches (with DI pipe/DPE pipes) to lines and levels using Mechanical collar or any available type of joint after cleaning the ends, centering the pipe, inserting the joint and tightening, including conveying the materials within initial lead and other surcharges etc. complete to make a water tight joint capable to withstand the required pressure as per the direction of the departmental officers (excluding the cost of mechanical collar see)	1098.48	INR One Thousand & Ninety Eight and Paise Forty Eight Only	6590.98
2.041	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	298.94	INR Two Hundred & Ninety Six and Paise Ninety Four Only	1615.35

2.042	Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches of drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, fill up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Ordinary rock	7.820 cum	527.51	INR Five Hundred & Twenty Seven and Paise Fifty One Only	4125.13
2.043	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:3:5 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	1.020 cum	7367.55	INR Seven Thousand Three Hundred & Sixty Seven and Paise Fifty Five Only	7514.90
2.044	Centering and shuttering including strutting, etc. and removal of form for Walls (any thickness) including attached plasterers, butresses, plinth and string courses etc.	42.360 sqm	717.20	INR Seven Hundred & Seventeen and Paise Twenty Only	30390.59
2.045	Reinforced cement concrete work in walls (any thickness), including attached plasterers, butresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to 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)	5.101 cum	10954.04	INR Ten Thousand Nine Hundred & Fifty Four and Paise Four Only	55876.56
2.046	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. Thermally Mechanically Treated bars of grade Fe-500D or more	408.080 kilogram	98.30	INR Ninety Eight and Paise Thirty Only	40114.28
2.047	Providing protection tube with 160mm PVC pipe 6Kg/cm ² including cost and conveyance of all materials and labour charges	3.000 No	1208.78	INR One Thousand Two Hundred & Eight and Paise Seventy Eight Only	3626.34
2.048	Providing protection tube with 110mm PVC pipe 6Kg/cm ² including cost and conveyance of all materials and labour charges	14.000 No	751.76	INR Seven Hundred & Fifty One and Paise Seventy Six Only	10524.64
2.049	Providing protection tube with 200mm PVC pipe 8Kg/cm ² including cost and conveyance of all materials and labour charges	2.000 No	1662.46	INR One Thousand Six Hundred & Sixty Two and Paise Forty Six Only	3324.92

2.05	Taking connection for service connection/pipe line extension from the existing pipe line by using PVC/TEE, PVC Saddle, MS saddle piece including joining the pipe with required specials including cost of Saddle / Tee	20,000.00	783.19	INR Seven Hundred & Eighty Three and Paise Nineteen Only	15663.60
2.051	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.	97964.000 meters	30.44	INR Thirty and Paise Forty Four Only	2982024.16
2.052	Dismantling manually / by mechanical means disposal of unserviceable material within 50 metres lead as per direction of Engineer -in-Charge. Bituminous/ concrete road	29045.606 sqm	67.88	INR Eighty Seven and Paise Eighty Eight Only	2552927.33
2.053	Supply, stacking, spreading and consolidating of Red earth in the trench of pipe line for cushion including carriage, loading, unloading & stacking up to any lead.	\$0.0000 cum	355.18	INR Three Hundred & Fifty Five and Paise Eighteen Only	17759.00
2.054	Supply, stacking, spreading and consolidating of Quarry Muck in the trench of pipe line, including carriage, loading, unloading & stacking up to any lead.	250.0000 cum	547.87	INR Five Hundred & Forty Seven and Paise Eighty Seven Only	136997.50
2.055	Repair work for 1m to 2m length in 20mm (3/4 inch) house connections, using 25mm PE Pipe, PE90, PN16, Conforming to IS 4984: 2015 or later edition and PP PN16 Compression specials, including trenching and refilling in all kinds of soil, hire for tools, cost of consumables and labour charges, cost of materials, including charges for lighting, watching, providing caution boards, traffic control etc. complete, but excluding the cost of cutting of concrete / tarred / bituminous roads and as per the directions of the department officers.	500.0000 Nos	1107.51	INR One Thousand One Hundred & Seven and Paise Fifty One Only	553735.00

2.056	<p>Replacing the choked / damaged 20mm (3/4 inch) house connection with 15mm meter from existing mains, up to a length of 5m using 25mm (3/4 inch) PE Pipe, PEB0, 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 but excluding cost of water meter and meter box and excluding charges for cutting the concrete / tarred / bituminous roads and as per the directions of the department officers.</p>	100,000	Nos	7180.06	INR Seven Thousand One Hundred & Eighty and Paise Six Only	718006.00
3	<p>Providing FHTCs</p> <p>Providing 15mm (1/2 inch) house connection with 15mm (1/2 inch) water meter from existing PVC / HDPE mains up to 110 mm dia., up to a length of 5 m using 20mm Indian Standard Class 6 uPVC pipe and uPVC / GM / Brass specials viz. brass ferrule, GM full way wheel valve, Elbow, 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 Mallet 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.</p>	1800,000	Nos	5902.86	INR Five Thousand Nine Hundred & Two and Paise Eighty Six Only	10625148.00

2.056	<p>Replacing the choked / damaged 20mm (3/4 inch) house connection with 15mm meter from existing mains, 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 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 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 but excluding cost of water meter and meter box and excluding charges for cutting the concrete / tarred / bituminous roads and as per the directions of the department officers.</p>	100,000	Nos	7180.06	INR Seven Thousand One Hundred & Eighty and Paise Six Only	718006.00
3.001	<p>Providing FITCS</p> <p>Providing 15mm (1/2 inch) house connection with 15mm (1/2 inch) water meter from existing PVC / HDPE mains up to 110 mm dia., up to a length of 5 m using 20mm Indian Standard Class 6 uPVC pipe and uPVC / GM / Brass specials viz. brass ferrule, GM full way wheel valve, Elbow, 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 teelad Class B Multilet 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.</p>	1800,000	Nos	5902.86	INR Five Thousand Nine Hundred & Two and Paise Eighty Six Only	10625148.00

3.002	<p>Providing 15mm (1/2 inch) house connection with 15mm (1/2 inch) water meter from existing AC / GI mains up to 125 mm dia. up to a length of 5 m using 20mm Indian Standard Class 6 uPVC pipe and uPVC / GM / Brass specials viz. brass ferrule, GM full way wheel valve, Elbow, MTA, FTA, couplers, GI / MS / SS 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 material, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Muffet 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.</p>	159 000 / nos	6015.76	INR Six Thousand & Fifteen and Paise Seventy Six Only	1016953.44
3.003	<p>Providing 15mm (1/2 inch) house connection with 15mm (1/2 inch) water meter from existing PVC / HDPE mains from 140mm to 200mm dia. up to a length of 5 m using 20mm Indian Standard Class 6 uPVC pipe and uPVC / GM / Brass specials viz. brass ferrule, GM full way wheel valve, Elbow, 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 material, hire for tools, cost of consumables and labour charges, including the cost of tested Class B Mujillet 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.</p>	1360 000 / nos	5102.66	INR Six Thousand One Hundred & Two and Paise Eighty Six Only	8295889.60

3.004	Providing 15mm (1/2 inch) house connection with 15mm (1/2 inch) water meter from existing AC / GI mains from 150mm to 200mm dia., up to a length of 5 m using 20mm Indian Standard Class 6 uPVC pipe and uPVC / GM / Brass specials viz. brass ferrule, GM full way wheel valve, Elbow, MTA, FTA, couplers, GI / MS / SS 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.	50,000	Nos	5102.86	INR Six Thousand One Hundred & Two and Paise Eighty Six Only	305143.00
3.005	Providing additional length of house connection pipe using 20mm Indian Standard Class 6 uPVC pipe and 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.	30000.000	metre	176.90	INR One Hundred & Seventy Six and Paise Ninety Only	5307000.00
3.006	Providing 20mm (1/2 inch) PVC Air Valve in the water meter assembly for 15mm connection, using 20mm Indian Standard Class 6 uPVC pipes and specials including cost of materials, consumables, hire for tools and labour charges etc. complete and as per the directions of the department officers.	3379.000	Nos	373.97	INR Three Hundred & Seventy Five and Paise Ninety Seven Only	1270402.63

3.007	Providing 15mm PVC Tap in the water meter assembly for 15mm connection, using 20mm Indian Standard Class 6 UPVC pipes and special including cost of materials, consumables, hire charges for tools and labour charges etc. complete and as per the direction of departmental officers.	3373.0001-02	582.86 INR Five Hundred & Eighty Two and Paise Eighty Six Only	1989493.94
3.008	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 utility, including the charges for hire and conveyance of tools and plant, cost of consumables and charges for lighting, watering, erecting, 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.	23490.0001-02	30.44 INR Thirty and Paise Forty Four Only	715035.60
3.009	Dismantling manually / by mechanical means disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-Charge. Bituminous/ concrete road	4733.5001-02	87.88 INR Eighty Seven and Paise Eighty Eight Only	415979.98
3.01	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to finish level: 1:2:4, 1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size)	710.0251-02	7863.27 INR Seven Thousand Eight Hundred & Sixty Three and Paise Twenty Seven Only	5583118.28
4	Road restoration charges for PWD			
4.001	Excavation for road work 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-section, and transporting to to the embankment location with in all lifts and load up to 1000m (as per PWD specification code 3.6)	7887.8401-02	48.56 INR Forty Eight and Paise Fifty Six Only	357772.60

4.002	Loosening of the ground up to a level of 500mm below the sub grade level, watered, graded and compacted in layers to meet requirement of table 300-2/cr compacting original ground supporting subgrade construction. (as per PWD specification code 3.19.11)	3157.560 cum	67.24 INR Sixty Seven and Paise Twenty Four Only	212314.33
4.003	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 a rotavator at OMC, and compacting with a vibratory roller to achieve the desired density, complete as per clause-401, Grading -VI, for sub base cum drainage layer -mix in place method- (as per PWD specification code 4.18.2)	2105.040 cum	3220.77 INR Three Thousand Two Hundred & Twenty and Paise Seventy Seven Only	6779849.68
4.004	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including pre mixing 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. (as per PWD specification code 4.12)	2105.040 cum	3241.37 INR Three Thousand Two Hundred & Forty One and Paise Thirty Seven Only	6823213.50
4.005	Supplying and stacking 36mm size hard broken stone in standard heaps for measurement. (as per PWD specification code 55.4)	55.258 cum	2303.09 INR Two Thousand Three Hundred & Three and Paise Nine Only	127264.15
4.006	Filling up pot holes (cut and firmed to regular shapes and all loose and defective materials removed) after supplying a prime coat of hot bitumen using 36 mm Departmental broken stone and compacting with power roller to get a compact surface. (as per PWD Specification code-55.8.a)	55.258 cum	4746.97 INR Four Thousand Seven Hundred & Forty Six and Paise Ninety Seven Only	262308.07
4.007	Providing and applying primer coat with bitumen emulsion (SS) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.70 - 1.0kg/sqm using mechanical means.-(as per PWD Specification code-5.1.a)	10525.200 sqm	57.84 INR Fifty Seven and Paise Eighty Four Only	608777.57

4.008	Providing and applying tack coat with bitumen emulsion (RS) using emission pressure distributor @ 0.2-0.3kg/m ² on the prepared bituminous surface cleaned with mechanical broom. (as per PWD Specification code- 5.2.a)	21050.400 sqm	11.08 INR Eleven and Paise Eight Only	233238.43
4.009	Providing and laying bituminous macadam with 80-100 TPH hot mix plant producing an average out put of 75 tonne/hour using crushed aggregates of specified grading premixed with bituminous binder (VG 30), transported to 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 1140mm nominal size). (as per PWD Specification code-5.3.1.a)	526.260 cum	8031.31 INR Eight Thousand & Thirty One and Paise Thirty One Only	4226557.20
4.01	Providing and laying bituminous concrete with 80-100 TPH hot mix plant producing an average out put of 75 tonne per hour using crushed aggregates of specified grading premixed with a bituminous binder (NRMV) @ 5.4 percent of mix and filler transporting the hot mix to work site laying with a hydro static 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 completing all respects for grading-II (13.2 MM nominal size)- (as per PWD Specification code-5.6.2.a)	316.756 cum	11208.00 INR Eleven Thousand Two Hundred & Eight Only	3638993.25
4.011	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. as per PWD specification 12.4	3.500 cum	6451.17 INR Six Thousand Four Hundred & Fifty One and Paise Seventeen Only	22879.10
4.012	Plain reinforced cement concrete in open foundation complete as per drawing and technical specification R.C.C grade M 20- using concrete mixer (without form work)- As per PWD specification 12.8.1.c	2.450 cum	7781.54 INR Seven Thousand Seven Hundred & Eighty One and Paise Fifty Four Only	19064.77

4.013	Supply, filling and placing un-coated HYSD bar reinforcement in foundation complete as per drawing and technical specifications - as per PWD specification 12.40	0.344	MT	85174.81	INR Eighty Eight Thousand One Hundred & Seventy Four and Paise Eighty One Only	30332.13
5	Restoration charges for LSGD					
5.001	Excavation for road work 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 section, and transporting to to the embankment location with in all lifts and lead up to 1000m- for LSGD	5840.875	cum	45.56	INR Forty Eight and Paise Fifty Six Only	283632.89
5.002	Granular sub-base/base/surface course with local materials (Table 400.13) by mix in place method normal. Construction of granular sub-base by providing local material spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at once and compacting with smooth wheel roller to achieve the desired density complete as per Clause 401.4 as per Technical Specification Clause 408. (ii) Using Gravel mix soil. (as per LSGD Specification code 4.11.2)	2338.350	cum	2243.69	INR Two Thousand Two Hundred & Forty Three and Paise Sixty Nine Only	5242045.13
5.003	Wet Mix Macadam- 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 fighting, barricading and maintenance of diversion, etc as per Tables 400.11 & 400.12 and Technical Specification Clause 406. By Mechanical Means with 1 km lead(as per LSGD Specification code 4.9)	4494.526	cum	3316.46	INR Three Thousand Three Hundred & Sixteen and Paise Forty Six Only	14905915.70

5.004	Prime Coat - Low porosity - With Packed Bitumen Rates-Providing and Applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including cleaning or road surface and spraying primer at the rate of 0.70-1.0 kg/sqm using mechanical means as per Technical Specification Clause 502 (as per LSQD Specification code 75.5.1.1pb)	23363.500	sqm	75.82	INR Seventy Five and Paise Eighty Two Only	1771420.57
5.005	Tack Coat - With Packed Bitumen Rates-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 & cleaned with Hydraulic broom as per Technical Specification Clause 503 (as per LSQD Specification code 75.5.2.3pb)	23363.500	sqm	15.82	INR Fifteen and Paise Eighty Two Only	369610.57
5.006	20mm thick Open-Graded Premix Carpet using Bituminous (penetration grade/modified bitumen) Binder - Bitumen S-65 - Packed Bitumen Rates-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 elastic 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 506 - By Manual Means- (1) Bitumen (S-65), including supplying and stacking of materials; (as per LSQD Specification code 75.5.9.1.2pb)	23363.500	sqm	190.75	INR One Hundred & Ninety and Paise Seventy Five Only	4456597.63

5.007	Seal Coat - Manual Means - Type C - Bitumen S-65 - Pneched Bitumen Rates 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-cr-A, By Manual Means Case III : Type C-(1) Bitumen (S-65), including supplying and stacking of materials. (as per LSGD Specification code 75.5.12.A.3.2p)	23363.500	sqm	80.72 INR Eighty and Paise Seventy Two Only	1885901.72
Total In Figures					
Add Tender excess @ 6.98%					
Quoted Rate In Figures					
					150946378
					10505868
					161452246

Sixteen Crore Fourteen Lakh Fifty Two Thousand Two Hundred & Forty Six Only

SUPERINTENDING ENGINEER