

DETAILED ESTIMATE

Jal Jeevan Mission (JJM)-WSS - to Santhanpara, Rajakumary (Part) and Senapathy (Part)
Panchayaths in Idukki District-Package IV- Clear Water Pumping Main, Sump cum pump house,
GLSR in Santhanpara GP-General Civil Work

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
1	Supply and laying Clear water pumping main-Cost of materials						
1.001	100.98.118						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 250mm Dia.						
	250mm DI Pipe						
	CWR WTP- Pooppara Booster	1.0000 0	5407.000				5407.000
	Spare pipe	1.0000 0	68.000				68.000
	Deduction	- 1.0000 0	40.000				-40.000
	Total						5435.000
							Total Quantity in metre 5435.000
1.002	100.98.117						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.						
	Supply of 200mm DI pipe						
	CWR WTP- Puthadi Jamespadi Booster	1.0000 0	4109.000				4109.000
	Spare pipe	1.0000 0	100.000				100.000
	Deduction	- 1.0000 0	72.000				-72.000
	Total						4137.000
							Total Quantity in metre 4137.000
1.003	100.98.116						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 150mm Dia.						
	Supply of 150mm DI pipe						
	Jamespadi- Puthady Top	1.0000 0	2286.000				2286.000
	Spare	1.0000 0	46.000				46.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity	
	Deduction for MS pipe	1.0000 0	80.000				-80.000	
	Total						2252.000	
	Total Quantity in metre							2252.000
1.004	OD182653/2023-2024							
	Supply of 150mm GI medium pipe							
	Supply of 150 mm GI pipe							
	Poopara to Erachilpara	1.0000 0	6117.000				6117.000	
	Erachilpara to Thodimala	1.0000 0	1317.000				1317.000	
	Total						7434.000	
	Total Quantity in metre							7434.000
1.005	OD182904/2023-2024							
	Supply of 100 mm GI(m) pipe							
	100 mm GI							
	Pooppara-Magna Peak	1.0000 0	1105.000				1105.000	
	Spare pipe	1.0000 0	28.000				28.000	
	Deduction	1.0000 0	48.000				-48.000	
	Total						1085.000	
	Total Quantity in metre							1085.000
1.006	OD182905/2023-2024							
	Specials for 100 mm GI pipe excluding GST(5% of cost of pipe)							
	Specials for 100 mm GI							
		1.0000 0	1105.000				1105.000	
	Total						1105.000	
	Total Quantity in L.S							1105.000
1.007	OD182909/2023-2024							
	Supplying 150 mm G.I Medium pipe specials							
	Supplying 150 mm G.I							
		1.0000 0	6117.000				6117.000	
	Total						6117.000	
	Total Quantity in metre							6117.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
1.008	100.98.441						
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 40mm.						
	Supply of 40mm size air valve						
		20.000 00					20.000
	Total						20.000
						Total Quantity in no	20.000
1.009	100.98.440						
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm.						
	Supply of 25mm size air valve						
		22.000 00					22.000
	Total						22.000
						Total Quantity in no	22.000
1.010	100.98.458						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 100mm.						
	Supply of 100mm sluice valve						
		1.0000 0					1.000
	Total						1.000
						Total Quantity in no	1.000
1.011	100.98.460						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 150mm.						
	Supply of 150mm sluice valve						
		3.0000 0					3.000
	Total						3.000
						Total Quantity in no	3.000
1.012	100.98.461						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.						
	Supply of 200mm sluice valve						
		2.0000 0					2.000
	Total						2.000
						Total Quantity in no	2.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
1.013	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 Sluice Valve						
		1.0000 0					1.000
	Total						1.000
						Total Quantity in no	1.000
2	Supply and laying Clear water pumping main-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 all kinds of soil 75%						
	200 mm DI K9	1.0000 0	4109.000	0.800	1.150	0.7500 00	2835.210
	250 mm DI K9	1.0000 0	5407.000	0.900	1.200	0.7500 00	4379.670
	150 mm DI K9	1.0000 0	2286.000	0.600	1.100	0.7500 00	1131.570
	DEDUCTION for MS Pipe 200 mm	- 1.0000 0	72.000	0.800	1.150	0.7500 00	-49.680
	DEDUCTION for MS Pipe 150mm	- 1.0000 0	80.000	0.600	1.050	0.7500 00	-37.800
	DEDUCTION for MS Pipe 100mm	- 1.0000 0	48.000	0.600	1.000	0.7500 00	-21.600
	Deduction for MS Pipe	- 1.0000 0	40.000	0.900	1.200	0.7500 00	-32.400
	Total						8204.970
						Total Quantity in cum	8204.970
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.						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Excavation in ordinary rock 15%						
	200 mm DI K9	1.0000 0	4109.000	0.800	1.150	0.1500 00	567.042
	250 mm DI K9	1.0000 0	5407.000	0.900	1.200	0.1500 00	875.934
	150 mm DI K9	1.0000 0	2286.000	0.600	1.100	0.1500 00	226.314
	DEDUCTION for MS Pipe 200 mm	- 1.0000 0	72.000	0.800	1.150	0.1500 00	-9.936
	DEDUCTION for MS Pipe 150mm	- 1.0000 0	80.000	0.600	1.050	0.1500 00	-7.560
	DEDUCTION for MS Pipe 100mm	- 1.0000 0	48.000	0.600	1.000	0.1500 00	-4.320
	Deduction for MS Pipe	- 1.0000 0	40.000	0.900	1.200	0.1500 00	-6.480
	Total						1640.994
						Total Quantity in cum	1640.994
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 10m ² 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 in medium rock 5%						
	200 mm DI K9	1.0000 0	4109.000	0.800	1.150	0.0500 00	189.014
	250 mm DI K9	1.0000 0	5407.000	0.900	1.200	0.0500 00	291.978
	150 mm DI K9	1.0000 0	2286.000	0.600	1.050	0.0500 00	72.009
	DEDUCTION for MS Pipe 200 mm	- 1.0000 0	72.000	0.800	1.150	0.0500 00	-3.312
	DEDUCTION for MS Pipe 150mm	- 1.0000 0	80.000	0.600	1.050	0.0500 00	-2.520
	DEDUCTION for MS Pipe 100mm	- 1.0000 0	48.000	0.600	1.000	0.0500 00	-1.440
	Deduction for MS Pipe	- 1.0000 0	40.000	0.900	1.200	0.0500 00	-2.160

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						543.569
						Total Quantity in cum	543.569
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.						
	Earth work excavation in Hard Rock 5%						
	200 mm DI K9	1.0000 0	4109.000	0.800	1.150	0.0500 00	189.014
	250 mm DI K9	1.0000 0	5407.000	0.900	1.200	0.0500 00	291.978
	150 mm DI K9	1.0000 0	2286.000	0.600	1.100	0.0500 00	75.438
	DEDUCTION for MS Pipe 200 mm	- 1.0000 0	72.000	0.800	1.150	0.0500 00	-3.312
	DEDUCTION for MS Pipe 150mm	- 1.0000 0	80.000	0.600	1.050	0.0500 00	-2.520
	DEDUCTION for MS Pipe 100mm	- 1.0000 0	48.000	0.600	1.000	0.0500 00	-1.440
	Deduction for MS Pipe	- 1.0000 0	40.000	0.900	1.200	0.0500 00	-2.160
	Total						546.998
						Total Quantity in cum	546.998
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.						
	Fencing						
		1.0000 0	20341.00 0				20341.00 0
	Total						20341.00 0
						Total Quantity in metre	20341.00 0
2.006	100.59.1						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	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 the bituminous roads						
		1.0000 0	1850.000				1850.000
	Total						1850.000
	Total Quantity in metre						1850.000
2.007	OD196216/2023-2024						
	Dismantling manually / by mechanical means and disposal of material within 50 metres lead as per direction of Engineer -in-Charge:
Bituminous road						
	Dismantling of flexible pavement						
		1.0000 0	1850.000	0.600	0.200		222.000
	Total						222.000
	Total Quantity in sqm						222.000
2.008	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)						
	CC demolition						
		1.0000 0	850.000	0.600	0.150		76.500
	Total						76.500
	Total Quantity in cum						76.500
2.009	100.12.9						
	Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc., but excluding cost of pipes and fittings for External work: 100mm diameter nominal bore.						
	100 mm GI pipe 1057+48m MS						
		1.0000 0	1057.000 +48				1105.000
	Total						1105.000
	Total Quantity in metre						1105.000
2.010	100.12.11						
	Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc., but excluding cost of pipes and fittings for External work: 150mm diameter nominal bore.						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	150 mm GI pipe						
	Poopara booster - Erachilpara	1.0000 0	6117.000				6117.000
	Erachilpara booster - Thodimala GLSR	1.0000 0	1317.000				1317.000
	Total						7434.000
	Total Quantity in metre						7434.000
2.011	OD196370/2023-2024						
	Testing 100mm GI/MS pipeline with potable water to the required test pressure						
	Testing 100mm GI/MS pipeline						
		1.0000 0	1105.000				1105.000
	Total						1105.000
	Total Quantity in metre						1105.000
2.012	OD196371/2023-2024						
	Testing 150mm GI/MS pipeline with potable water to the required test pressure						
	Testing 150mm GI/MS pipeline						
		1.0000 0	7434.000				7434.000
	Total						7434.000
	Total Quantity in metre						7434.000
2.013	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.						
	laying 150mm DI						
	Jamespadi booster - Puthadi top	1.0000 0	2286.000				2286.000
	Total						2286.000
	Total Quantity in metre						2286.000
2.014	18.30.4						
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints: 150 mm diameter pipe						
	flanged joints 150mm DI						
		15.000 00					15.000
	Total						15.000
	Total Quantity in no						15.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
2.015	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						
	150 mm dia						
		425.00 000					425.000
	Total						425.000
							Total Quantity in joint 425.000
2.016	OD167295/2023-2024						
	Labour for cutting Ductile Iron pipe with steel saw.150 mm diameter Ductile Iron. pipe						
	200 mm DI						
		40.000 00					40.000
	Total						40.000
							Total Quantity in no 40.000
2.017	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						
	150 mm						
		1.0000 0	2286.000				2286.000
	Total						2286.000
							Total Quantity in metre 2286.000
2.018	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.						
	laying 200 mm DI						
	CWR- Puthadi Jamespadi	1.0000 0	4109.000				4109.000
	Total						4109.000
							Total Quantity in metre 4109.000
2.019	18.30.5						
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:200 mm diameter pipe						
	200 mm DI						
		15.000 00					15.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						15.000
							Total Quantity in no 15.000
2.020	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						
	200 mm dia						
		760.00 000					760.000
	Total						760.000
							Total Quantity in joint 760.000
2.021	OD167296/2023-2024						
	Labour for cutting DI pipe with steel saw 200 mm diameter of DI Pipe						
	200 mm DI						
		26.000 00					26.000
	Total						26.000
							Total Quantity in Each Cut 26.000
2.022	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 200 mm						
		1.0000 0	4109.000				4109.000
	Total						4109.000
							Total Quantity in metre 4109.000
2.023	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.						
	Laying 250 mm DI Pipe						
		1.0000 0	5407.000				5407.000
	Total						5407.000
							Total Quantity in metre 5407.000
2.024	18.30.6						
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:250 mm diameter pipe						
	flanged joint						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
		7.0000 0					7.000
	Total						7.000
						Total Quantity in no	7.000
2.025	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						
	Push-on-Joints						
		990.00 000					990.000
	Total						990.000
						Total Quantity in joint	990.000
2.026	OD167297/2023-2024						
	Labour for cutting DI pipe with steel saw 250 mm diameter DI Pipe cutting						
		20.000 00					20.000
	Total						20.000
						Total Quantity in Each Cut	20.000
2.027	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 250 mm DI Pipe						
		1.0000 0	5407.000				5407.000
	Total						5407.000
						Total Quantity in metre	5407.000
2.028	100.37.5.1						
	In situ fabrication of M.S. pipes of size 100mm (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 100 mm						
		1.0000 0	48.000				48.000
	Total						48.000
						Total Quantity in metre	48.000
2.029	100.37.5.2						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Fabricating M.S. flanges of diameter 100mm 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.						
	MS flange						
		20.000 00					20.000
	Total						20.000
	Total Quantity in no						20.000
2.030	100.37.5.3						
	Cutting 100mm (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						
		24.000 00					24.000
	Total						24.000
	Total Quantity in no						24.000
2.031	100.37.5.4						
	Welding 100mm (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						
		24.000 00					24.000
	Total						24.000
	Total Quantity in no						24.000
2.032	100.37.5.5						
	Grinding cut and weld edges of 100mm (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						
		48.000 00					48.000
	Total						48.000
	Total Quantity in no						48.000
2.033	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.						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity	
	MS pipe 150mm							
		1.0000 0	80.000				80.000	
	Total						80.000	
	Total Quantity in metre							80.000
2.034	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.							
	MS flange							
		30.000 00					30.000	
	Total						30.000	
	Total Quantity in no							30.000
2.035	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.							
	cutting							
		40.000 00					40.000	
	Total						40.000	
	Total Quantity in no							40.000
2.036	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.							
	Welding							
		40.000 00					40.000	
	Total						40.000	
	Total Quantity in no							40.000
2.037	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.							
	Grinding							
		80.000 00					80.000	

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						80.000
							Total Quantity in no 80.000
2.038	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.						
	MS pipe 200mm						
		1.0000 0	72.000				72.000
	Total						72.000
							Total Quantity in metre 72.000
2.039	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.						
	MS flange						
		30.000 00					30.000
	Total						30.000
							Total Quantity in no 30.000
2.040	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						
		36.000 00					36.000
	Total						36.000
							Total Quantity in no 36.000
2.041	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						
		36.000 00					36.000
	Total						36.000
							Total Quantity in no 36.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
2.042	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						
		72.000 00					72.000
	Total						72.000
							Total Quantity in no
							72.000
2.043	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.						
	Fabrication 250 mm MS Pipe						
		1.0000 0	40.000				40.000
	Total						40.000
							Total Quantity in metre
							40.000
2.044	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.						
	MS flange						
		14.000 00					14.000
	Total						14.000
							Total Quantity in no
							14.000
2.045	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						
		18.000 00					18.000
	Total						18.000
							Total Quantity in no
							18.000
2.046	100.37.8.4						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	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						
		18.000 00					18.000
	Total						18.000
	Total Quantity in no						18.000
2.047	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						
		36.000 00					36.000
	Total						36.000
	Total Quantity in no						36.000
2.048	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						
	D.I specials						
	200*90 bend	4.0000 0				0.3200 00	1.280
	200*45 bend	17.000 00				0.2600 00	4.420
	200*22.5 bend	21.000 00				0.2300 00	4.830
	200*11.25 bend	32.000 00				0.2100 00	6.720
	250*90 bend	4.0000 0				0.4800 00	1.920
	250*45 bend	4.0000 0				0.3600 00	1.440
	250*22.5 bend	4.0000 0				0.3200 00	1.280
	250*11.25 bend	4.0000 0				0.3000 00	1.200
	150*90 bend	6.0000 0				0.2000 00	1.200
	150*45 bend	14.000 00				0.1600 00	2.240
	150*22.5 bend	20.000 00				0.1500 00	3.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	150*11.25 bend	35.000 00				0.1400 00	4.900
	100*90 bend	2.0000 0				0.1100 00	0.220
	100*45 bend	3.0000 0				0.1000 00	0.300
	100*22.5 bend	4.0000 0				0.0900 00	0.360
	100*11.25 bend	6.0000 0				0.0900 00	0.540
	200*150 TEE	20.000 00				0.3600 00	7.200
	200*100 TEE	12.000 00				0.3100 00	3.720
	150*100 TEE	10.000 00				0.2200 00	2.200
	250*TP	2.0000 0				0.3200 00	0.640
	200mm TP	10.000 00				0.2000 00	2.000
	150mm TP	10.000 00				0.1400 00	1.400
	100mm TP	2.0000 0				0.0900 00	0.180
	Total						53.190
						Total Quantity in quintal	53.190
2.049	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						
	MJ collar						
	100 mm M J Collar	2.0000 0				0.1300 00	0.260
	150 mm M J Collar	20.000 00				0.2000 00	4.000
	200 mm M J Collar	9.0000 0				0.2700 00	2.430
	250 mm MJ collor	8.0000 0				0.3600 00	2.880
	Total						9.570
						Total Quantity in quintal	9.570
2.050	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.						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	150 mm						
		3.0000 0					3.000
	Total						3.000
						Total Quantity in no	3.000
2.051	100.31.1.2						
	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): 100mm diameter, Class I.						
	sluice valve						
	100 mm	1.0000 0					1.000
	Total						1.000
						Total Quantity in no	1.000
2.052	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.						
	sluice valve						
	200 mm valve for scour arrangements	2.0000 0					2.000
	Total						2.000
						Total Quantity in no	2.000
2.053	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.						
	250 mm sluice valve						
		1.0000 0					1.000
	Total						1.000
						Total Quantity in no	1.000
2.054	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.						
	Air valve 25 mm						
		22.0000 00					22.000
	Total						22.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
Total Quantity in no							22.000
2.055	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.						
	Air valve						
	40mm	20.000 00					20.000
	Total						20.000
Total Quantity in no							20.000
2.056	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						
	Excavation						
	for valve chamber	7.0000 0	1.600	1.600	1.500		26.880
	Total						26.880
Total Quantity in cum							26.880
2.057	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 and Anchor Block						
	Basement	7.0000 0	1.600	1.600	0.100		1.792
	Anchor Block	200.00 000	0.600	0.600	0.600		43.200
	Total						44.992
Total Quantity in cum							44.992
2.058	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)						
	RCC						
	Cover slab	21.000 00	0.500	1.500	0.250		3.938
	base slab	7.0000 0	1.500	1.500	0.150		2.363

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	side wall long	14.000 00	1.500	0.250	1.000		5.250
	side wall Short	14.000 00	1.000	0.250	1.000		3.500
	Total						15.051
						Total Quantity in cum	15.051
2.059	5.22.4						
	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Hot rolled deformed bars						
	Steel reinforcement						
	@60 kg/cum for valve chamber	15.051 00				60.000 000	903.060
	@20 kg/cum for AB	43.200 00				20.000 000	864.000
	Total						1767.060
						Total Quantity in kilogram	1767.060
2.060	5.9.2						
	Centering and shuttering including strutting, etc. and removal of form for: Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.						
	Centering and shuttering						
	side wall(out side)	7.0000 0	1.5*4		1.000		42.000
	side wall(in side)	7.0000 0	1*4		1.000		28.000
	anchor block	200.00 000	0.6*4		0.600		288.000
	Total						358.000
						Total Quantity in sqm	358.000
2.061	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 wall	21.000 00	4.000		0.250		21.000
	Total						21.000
						Total Quantity in sqm	21.000
3	Construction of 0.5 LL Capacity steel storage tank Near Magna Peak						
3.001	2.31						
	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Clearing jungle						
		1.0000 0	6.000	6.000			36.000
	Total						36.000
	Total Quantity in sqm						36.000
3.002	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						
	Earth work						
	for ring beam	1.0000 0	3.14*4.85 5*4.855		0.450	0.2500 00	8.326
	cutting and levelling	1.0000 0	5.500	5.500	0.750		22.688
	Total						31.014
	Total Quantity in cum						31.014
3.003	4.1.8						
	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)						
	PCC 1:4:8						
	For ring beam	1.0000 0	3.14*4.85 5*4.855		0.200	0.2500 00	3.701
	Total						3.701
	Total Quantity in cum						3.701
3.004	5.2.2						
	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement : 1:1.5:3(1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)						
	RCC 1:1.5:3						
	For ring beam	1.0000 0	3.14*4.85 5	0.450	0.450		3.087
	Total						3.087
	Total Quantity in cum						3.087
3.005	5.9.3						
	Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform						
	Formwork						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Outer area	1.0000 0	3.14*5.30 5		0.450		7.496
	Inner area	1.0000 0	3.14*4.40 5		0.450		6.224
	Total						13.720
						Total Quantity in sqm	13.720
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						
	@ 120 kg/cum						
		3.0870 0				120.00 0000	370.440
	Total						370.440
						Total Quantity in kilogram	370.440
3.007	2.25						
	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.						
	Earth filling and compacting						
		3.1400 0	2.202	2.202	0.300		4.568
	Total						4.568
						Total Quantity in cum	4.568
3.008	OD167298/2023-2024						
	Supply of Sand including loading, unloading, transportation and other incidental charges as per the direction of departmental officers.1						
	Sand filling						
		3.1400 0	2.202	2.202	0.150		2.284
	Total						2.284
						Total Quantity in cum	2.284
3.009	OD167299/2023-2024						

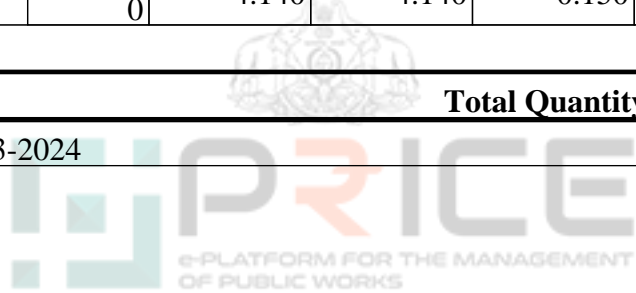
SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>Supply, installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 50000 L(1Nos.) thickness of 0.6 mm, in multiple layers as required for the capacity and height of the tank and multiple layered PE sheet/membrane for the inner containment liner. The Tank Shell / Body &&& the Liner material shall be manufactured in a facility certified and compliant to ISO 9001 - 2000 standards. The Tank shall be supplied with access points, penetrations for inlets, outlets, drains and fittings, overflow and drain, high and low water level indicators. All connections to the tanks shall be with flanged or threaded nozzles, placed to the KWA water mains</p> <p>TANK ROOF :The roof of the tank shall be of corrugated Galvalume sheet steel and shall be domed, with heavy-duty Hot-dip Galvanized truss frame for support, and capable of supporting 4-5 persons for maintenance and cleaning and tank shall have an access hatch with cover, on the roof, for operation and Maintenance</p> <p>TANK COVER :Tank covers shall be of approved galvanized vermin proof construction. Roof ends shall be fitted with suitable vermin-proofing tape or other material, to prevent ingress of dust and foreign objects. Covers shall be firmly fixed to the top edge of the tank with galvanized bolts and nuts. LADDERS :Tanks shall be provided with Hotdip Galvanized ladders internally or externally. External roof supports shall be of an appropriately designed Hot-dip galvanized Steel construction. Tanks shall comply with relevant spill level, air gap and overflow requirements relative to Effective Capacity. All nuts and bolts used for the panels shall be a minimum of 12mm size and hot-dip galvanized/Case hardened. The tank shall have a circular angle fixed around the total circumference of the tanks, at the top, of minimum 2 mm thickness. Tanks shall be properly flushed out with clean water prior to being brought into service</p> <p>TANK DIMENSIONS: The dimensions of the Tank shall be of 4.855m in diameter and 2.9m in height</p> <p>DESIGN LIFE: The tanks shall have a design life of 40 years.</p> <p>TANK CONNECTIONS: Standard design valve outlet connection : i) Suitable size CI Flanged valve ii) Overflow connection including an Internal approved bell-mouth shaped bends to maximize the overflow capacity. One no. 100 mm, iii) One (1) scour drain outlet from the floor of the tank with isolation valve. One No. 100mm.</p> <p>TANK LINERS:Tank liners shall be purpose designed and manufactured and shall comply to AS/NZS 4020 (Appendix A)of 2005 and ANSI/NSF 61 - 2008, Section 5 Certificates of compliance to above standards shall be</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>furnished by the manufacturer of the tanks. Tank liners shall: i) Be factory manufactured to onepiece construction, fabricated from multi-layer PE sheet, certified for potable drinking water, to (ANSI/ NSF 61) and duly UV Stabilized. ii) Be of PE (polyethylene) in multi-layer construction for strength, reinforced with woven scrim industrial fabric to prevent elongation and enhance tensile strength. The total liner material thickness shall be no less than 0.6 mm thick. The tensile strength shall not be less than 2266 N (warp) and 2495 N (weft) and heat sealing strength of 2056 N v) All the liner welded lap joints shall be strengthened with Metallocene encapsulating tape welded over the overlap. vi) The Metallocene tape shall cover and protect the exposed material at the edges of the liner joints to further prevent the ingress of water into the scrim. vii) Liners shall be positively and continuously attached to the top outer edge of the circumference of the tank to prevent entry of water from the runoff from the roof structure. viii) All liners on tanks over 2m in height shall have a continuous intermediate liner support designed out of nylon (or other material) cord, around the circumference of the tank, at vertical intervals corresponding to the level of each ring. ix) The intermediate liner support cords shall be firmly secured to the steel shell at each level, to prevent stress on the liner welded joints, and thereby eliminate possibility of failure CORROSION PROTECTION. The tank structure shall have a secondary corrosion protection system using sacrificial magnesium anodes. The number of anodes, their location around the tank and the mass of each anode shall be designed for anode replacement frequency of five years. The anodes shall be installed external to the tank and concrete apron with their location marked with a suitably label-Cost for Tank steel with 10years guarantee includes shel l,Steel wall,steel domed roof,Zinc Alum steel&amp;39;,Cost for Poly ethylene infinity liner ,Geo synthetic Fibre with food grade plastics are used for inside coating and Support Arrangements, Cost for Fabricated items, attachments and accessories like steel ladder, Cost of Fabricated nozzles, over flow nozzles and drain arrangements, Cost for HDG nut and bolts, Freight Charges, Erection Installation and commissioning of tank components.</p>						
	Steel Tank						
	Magna peak	1.0000 0	50000.00 0				50000.00 0

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						50000.00 0
						Total Quantity in Litre	50000.00 0
3.010	OD167300/2023-2024						
	Dowel bars - Supplying and providing MS dowel bars of size 16mm dia of 2m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia and filling the gap with cement grout (.5kg/each) etc...						
	Dowel bar						
		38.000 00					38.000
	Total						38.000
						Total Quantity in no	38.000
4	Construction of 2.6LL Capacity steel storage tank at Thondimala						
4.001	2.31						
	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared						
	Clearing jungle						
		1.0000 0	11.000	11.000			121.000
	Total						121.000
						Total Quantity in sqm	121.000
4.002	2.1.1						
	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5m in width as well as 10 sqm on plan including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be levelled and neatly dressed:All Kinds of soil						
	For site levelling						
	Thodimala	1.0000 0	11.000	11.000			121.000
	steel tank for PCC	1.0000 0	4.360	4.360		3.1400 00	59.690
	Total						180.690
						Total Quantity in sqm	180.690
4.003	2.7.3						
	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Hard rock (blasting prohibited)						
	Hard rock						
		1.0000 0	10.000	10.000	0.300		30.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						30.000
						Total Quantity in cum	30.000
4.004	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						
		1.0000 0	4.594	4.594	0.200	3.1400 00	13.254
	Total						13.254
						Total Quantity in cum	13.254
4.005	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)						
	RCC Ring Beam						
		1.0000 0	8.739	0.450	0.450	3.1400 00	5.557
	Total						5.557
						Total Quantity in cum	5.557
4.006	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						
	Outside	1.0000 0	9.189		0.450	3.1400 00	12.984
	Inside	1.0000 0	8.289		0.450	3.1400 00	11.712
	Total						24.696
						Total Quantity in sqm	24.696
4.007	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 @ 100kg/cum						
	For ring beam	5.5570 0				120.00 0000	666.840
	Total						666.840
						Total Quantity in kilogram	666.840
4.008	2.25						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.						
	Earth filling and compacting						
		1.0000 0	4.140	4.140	0.300	3.1400 00	16.146
	Total						16.146
	Total Quantity in cum						16.146
4.009	OD167301/2023-2024						
	Supply of Sand including loading, unloading, transportation and other incidental charges as per the direction of departmental officers.1						
	sand filling						
		1.0000 0	4.140	4.140	0.150	3.1400 00	8.073
	Total						8.073
	Total Quantity in cum						8.073
4.010	OD167302/2023-2024						



SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>Supply, installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 260000 L(1Nos.) thickness of 0.6 mm, in multiple layers as required for the capacity and height of the tank and multiplelayered PE sheet/membrane for the inner containment liner. The Tank Shell / Body the Liner material shall be manufactured in a facility certified and compliant to ISO 9001 - 2000 standards. The Tank shall be supplied with access points, penetrations for inlets, outlets, drains and fittings, overflow and drain, high and low water level indicators. All connections to the tanks shall be with flanged or threaded nozzles, placed to the KWA water mains</p> <p>TANK ROOF :The roof of the tank shall be of corrugated Galvalume sheet steel and shall be domed, with heavy-duty Hot-dip Galvanized truss frame for support, and capable of supporting 4-5 persons for maintenance and cleaning and tank shall have an access hatch with cover, on the roof, for operation and Maintenance</p> <p>TANK COVER :Tank covers shall be of approved galvanized vermin proof construction. Roof ends shall be fitted with suitable vermin-proofing tape or other material, to prevent ingress of dust and foreign objects. Covers shall be firmly fixed to the top edge of the tank with galvanized bolts and nuts. LADDERS :Tanks shall be provided with Hotdip Galvanized ladders internally or externally. External roof supports shall be of an appropriately designed Hot-dip galvanized Steel construction. Tanks shall comply with relevant spill level, air gap and overflow requirements relative to Effective Capacity. All nuts and bolts used for the panels shall be a minimum of 12mm size and hot-dip galvanized/Case hardened. The tank shall have a circular angle fixed around the total circumference of the tanks, at the top, of minimum 2 mm thickness. Tanks shall be properly flushed out with clean water prior to being brought into service</p> <p>TANK DIMENSIONS: The dimensions of the Tank shall be of 8.739m in diameter and 4.3m in height DESIGN LIFE: The tanks shall have a design life of 40 years.</p> <p>TANK CONNECTIONS: Standard design valve outlet connection : i) Suitable CI Flanged valve ii) Overflow connection including an Internal approved bell-mouth shaped bends to maximize the overflow capacity. One no. 100 mm, iii) One (1) scour drain outlet from the floor of the tank with isolation valve. One No. 100mm.</p> <p>TANK LINERS:Tank liners shall be purposedesigned and manufactured and shall comply to AS/NZS 4020 (Appendix A)of 2005 and ANSI/NSF 61 - 2008, Section 5 Certificates of compliance to above standards shall be</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>furnished by the manufacturer of the tanks. Tank liners shall: i) Be factory manufactured to onepiece construction, fabricated from multi-layer PE sheet, certified for potable drinking water, to (ANSI/ NSF 61) and duly UV Stabilized. ii) Be of PE (polyethylene) in multi-layer construction for strength, reinforced with woven scrim industrial fabric to prevent elongation and enhance tensile strength. The total liner material thickness shall be no less than 0.6 mm thick. The tensile strength shall not be less than 2266 N (warp) and 2495 N (weft) and heat sealing strength of 2056 N v) All the liner welded lap joints shall be strengthened with Metallocene encapsulating tape welded over the overlap. vi) The Metallocene tape shall cover and protect the exposed material at the edges of the liner joints to further prevent the ingress of water into the scrim. vii) Liners shall be positively and continuously attached to the top outer edge of the circumference of the tank to prevent entry of water from the runoff from the roof structure. viii) All liners on tanks over 2m in height shall have a continuous intermediate liner support designed out of nylon (or other material)cord, around the circumference of the tank, at vertical intervals corresponding to the level of each ring. ix) The intermediate liner support cords shall be firmly secured to the steel shell at each level, to prevent stress on the liner welded joints, and thereby eliminate possibility of failure CORROSSION PROTECTION. The tank structure shall have a secondary corrosion protection system using sacrificial magnesium anodes. The number of anodes, their location around the tank and the mass of each anode shall be designed for anode replacement frequency of five years. The anodes shall be installed external to the tank and concrete apron with their location marked with a suitably label-Cost for Tank steel with 10years guarantee includes shel l,Steel wall,steel domed roof,Zinc Alum steel&amp;39;,Cost for Poly ethylene infinity liner ,Geo synthetic Fibre with food grade plastics are used for inside coating and Support Arrangements,Cost for Fabricated items,attachments and accessories like steel ladder,Cost of Fabricated nozzles,over flow nozzles and drain arrangements, Cost for HDG nut and bolts,Freight Charges,Erection Installation and commissioning of tank components.</p>						
	GLSR at Thodimala						
	Dia- 8.739m, ht- 4.3m	26000 0.0000 0					260000.0 00

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						260000.00
						Total Quantity in Litre	260000.00
4.011	OD167303/2023-2024						
	Dowel bars - Supplying and providing MS dowel bars of size 16mm dia of 2m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia and filling the gap with cement grout (.5kg/each) etc...						
	Dowel Bars- 16mm dia						
		60.0000					60.000
	Total						60.000
						Total Quantity in no	60.000
5	Construction of 2.9LL Steel storage tank at Puthadi Top						
5.001	2.1.1						
	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5m in width as well as 10 sqm on plan including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be levelled and neatly dressed:All Kinds of soil						
	For Site Levelling						
	Puthadi top GLSR	1.00000	12.500	12.500			156.250
	For site leveling	1.00000	3.14*12.102*12.102			0.25000	114.970
	Total						271.220
						Total Quantity in sqm	271.220
5.002	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)						
	For PCC						
	Puthadi top GLSR	1.00000	6.051	6.051	0.150	3.14000	17.245
	Total						17.245
						Total Quantity in cum	17.245
5.003	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)						
	For Ring Beam						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
		1.0000 0	11.652	0.450	0.450	3.1400 00	7.409
	Total						7.409
						Total Quantity in cum	7.409
5.004	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						
	Outside	3.1400 0	12.102		0.450		17.100
	Inside	3.1400 0	11.202		0.450		15.828
	Total						32.928
						Total Quantity in sqm	32.928
5.005	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						
	@ 120 kg/cum	1.0000 0	7.409			120.00 0000	889.080
	Total						889.080
						Total Quantity in kilogram	889.080
5.006	2.25						
	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.						
	Earth filling and Compacting						
		3.1400 0	5.601	5.601	0.300		29.552
	Total						29.552
						Total Quantity in cum	29.552
5.007	OD167304/2023-2024						
	Supply of Sand including loading, unloading, transportation and other incidental charges as per the direction of departmental officers.1						
	Sand Filling						
		3.1400 0	5.601	5.601	0.150		14.776
	Total						14.776
						Total Quantity in cum	14.776

EST No. :WRD/KWA-CE(CR)/EST/6970/2022_5_3_2/RC 1 (Edit Id : 6)
(Dsor year : 2018, Cost Index (Place : Idukki, Value : 141.53), GST : 18%

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
5.008	OD167305/2023-2024						



SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>Supply, installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 2.9 LL(1Nos.) thickness of 0.6 mm, in multiple layers as required for the capacity and height of the tank and multiple layered PE sheet/membrane for the inner containment liner. The Tank Shell / Body &&& the Liner material shall be manufactured in a facility certified and compliant to ISO 9001 - 2000 standards. The Tank shall be supplied with access points, penetrations for inlets, outlets, drains and fittings, overflow and drain, high and low water level indicators. All connections to the tanks shall be with flanged or threaded nozzles, placed to the KWA water mains</p> <p>TANK ROOF :The roof of the tank shall be of corrugated Galvalume sheet steel and shall be domed, with heavy-duty Hot-dip Galvanized truss frame for support, and capable of supporting 4-5 persons for maintenance and cleaning and tank shall have an access hatch with cover, on the roof, for operation and Maintenance</p> <p>TANK COVER :Tank covers shall be of approved galvanized vermin proof construction. Roof ends shall be fitted with suitable vermin-proofing tape or other material, to prevent ingress of dust and foreign objects. Covers shall be firmly fixed to the top edge of the tank with galvanized bolts and nuts. LADDERS :Tanks shall be provided with Hot dip Galvanized ladders internally or externally. External roof supports shall be of an appropriately designed Hot-dip galvanized Steel construction. Tanks shall comply with relevant spill level, air gap and overflow requirements relative to Effective Capacity. All nuts and bolts used for the panels shall be a minimum of 12mm size and hot-dip galvanized/Case hardened. The tank shall have a circular angle fixed around the total circumference of the tanks, at the top, of minimum 2 mm thickness. Tanks shall be properly flushed out with clean water prior to being brought into service</p> <p>TANK DIMENSIONS: The dimensions of the Tank shall be of 11.652m in diameter and 2.9m in height DESIGN LIFE: The tanks shall have a design life of 40 years.</p> <p>TANK CONNECTIONS: Standard design valve outlet connection : i) suitable size CI Flanged valve ii) Overflow connection including an Internal approved bell-mouth shaped bends to maximize the overflow capacity. One no. 100 mm, iii) One (1) scour drain outlet from the floor of the tank with isolation valve. One No. 100mm.</p> <p>TANK LINERS:Tank liners shall be purpose designed and manufactured and shall comply to AS/NZS 4020 (Appendix A)of 2005 and ANSI/NSF 61 - 2008, Section 5 Certificates of compliance to above standards shall be</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>furnished by the manufacturer of the tanks. Tank liners shall: i) Be factory manufactured to one piece construction, fabricated from multi-layer PE sheet, certified for potable drinking water, to (ANSI/ NSF 61) and duly UV Stabilized. ii) Be of PE (polyethylene) in multi-layer construction for strength, reinforced with woven scrim industrial fabric to prevent elongation and enhance tensile strength. The total liner material thickness shall be no less than 0.6 mm thick. The tensile strength shall not be less than 2266 N (warp) and 2495 N (weft) and heat sealing strength of 2056 N v) All the liner welded lap joints shall be strengthened with Metallocene encapsulating tape welded over the overlap. vi) The Metallocene tape shall cover and protect the exposed material at the edges of the liner joints to further prevent the ingress of water into the scrim. vii) Liners shall be positively and continuously attached to the top outer edge of the circumference of the tank to prevent entry of water from the runoff from the roof structure. viii) All liners on tanks over 2m in height shall have a continuous intermediate liner support designed out of nylon (or other material) cord, around the circumference of the tank, at vertical intervals corresponding to the level of each ring. ix) The intermediate liner support cords shall be firmly secured to the steel shell at each level, to prevent stress on the liner welded joints, and thereby eliminate possibility of failure CORROSION PROTECTION. The tank structure shall have a secondary corrosion protection system using sacrificial magnesium anodes. The number of anodes, their location around the tank and the mass of each anode shall be designed for anode replacement frequency of five years. The anodes shall be installed external to the tank and concrete apron with their location marked with a suitably label-Cost for Tank steel with 10years guarantee includes shel l,Steel wall,steel domed roof,Zinc Alum steel&amp;39;,Cost for Poly ethylene infinity liner ,Geo synthetic Fibre with food grade plastics are used for inside coating and Support Arrangements, Cost for Fabricated items, attachments and accessories like steel ladder, Cost of Fabricated nozzles, over flow nozzles and drain arrangements, Cost for HDG nut and bolts, Freight Charges, Erection Installation and commissioning of tank components.</p>						
	Steel Tank	29000 0.0000 0					290000.0 00

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						290000.00
						Total Quantity in Litre	290000.00
5.009	OD167306/2023-2024						
	Dowel bars - Supplying and providing MS dowel bars of size 16mm dia of 2m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia and filling the gap with cement grout (.5kg/each) etc...						
	Dowel bars 16mm dia						
		90.000 00					90.000
	Total						90.000
						Total Quantity in no	90.000
6	Construction of 4LL Sump cum Pump house at Pooppara						
6.001	2.31						
	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared						
	Cleaning jungle						
		1.0000 0	16.000	10.000			160.000
	Total						160.000
						Total Quantity in sqm	160.000
6.002	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						
	For levelling sump	1.0000 0	15.100	9.100	0.400	0.2500 00	13.741
	Compound wall	1.0000 0	49.000	0.300	0.300	0.2500 00	1.103
	Total						14.844
						Total Quantity in cum	14.844
6.003	2.7.3						
	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Hard rock (blasting prohibited)						
	Excavation						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	for levelling sump	1.0000 0	9.100	15.100	0.400	0.7500 00	41.223
	Compound wall	1.0000 0	49.000	0.300	0.300	0.7500 00	3.308
	Total						44.531
						Total Quantity in cum	44.531
6.004	OD167312/2023-2024						
	:DOWEL BARS_ Supplying and providing MS dowel bars of size 16 mm dia , 200 cm long including drilling holes of 20 mm dia to a depth of 100 cm in rock and filling the gap with cement grout (0.100kg/hole) etc complete						
	Dowel bar						
		200.00 000					200.000
	Total						200.000
						Total Quantity in no	200.000
6.005	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 upto plinth level						
	Sump	1.0000 0	15.100	9.100	0.150		20.612
	Footing PCC	8.0000 0	1.300	1.300	0.100		1.352
	compound wall	1.0000 0	49.000	0.300	0.100		1.470
	Deduction for Footing	- 8.0000 0	1.300	1.300	0.150		-2.028
	Total						21.406
						Total Quantity in cum	21.406
6.006	5.33.1						
	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work upto plinth level						
	Upto plinth level						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Base slab	1.0000 0	14.500	8.500	0.250		30.813
	Foundation	8.0000 0	1.200	1.200	1.200		13.824
	compound wall plinth beam	1.0000 0	49.000	0.300	0.300		4.410
	Deduction- footing	8.0000 0	1.200	1.200	0.250		-2.880
	Total						46.167
						Total Quantity in cum	46.167
6.007	5.33.2 Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately. All work above plinth level upto floor V level						
	Above plinth level						
	Side wall	1.0000 0	45.000	0.250	3.750		42.188
	Haunch	1.0000 0	44.000	0.700	0.400	0.5000 00	6.160
	Haunch vertical	4.0000 0	0.500	0.500	3.750	0.5000 00	1.875
	Cover slab of sump	1.0000 0	15.100	9.100	0.150		20.612
	Cover slab of sump (floor of PH)	1.0000 0	6.300	3.300	0.050		1.040
	Beam under roof slab- Long beam	2.0000 0	14.500	0.300	0.330		2.871
	Beam under roof slab- Short beam	4.0000 0	7.400	0.300	0.330		2.930
	Column inside sump	8.0000 0	3.670	0.300	0.300		2.642
	Roof slab of PH	1.0000 0	6.700	3.700	0.120		2.975
	Shade for pump house	1.0000 0	21.600	0.600	0.075		0.972
	Lintel	1.0000 0	15.700	0.200	0.150		0.471

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	PH Beam under roof slab	7.0000 0	2.700	0.300	0.200		1.134
	Column PH	6.0000 0	0.300	0.300	2.800		1.512
	Deduction- Manhole cover	- 8.0000 0	0.455	0.610	0.200		-0.444
	Total						86.938
						Total Quantity in cum	86.938
6.008	5.34.1						
	Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately. Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).						
	Extra for richer mixes						
		1.0000 0	44.637+8 6.938				131.575
	Total						131.575
						Total Quantity in cum	131.575
6.009	22.23.1						
	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage. For vertical surface two coats @0.70 kg per sqm						
	Vertical surface						
	Side wall	1.0000 0	45.000		4.000		180.000
	column inside sump	8.0000 0	1.200		4.000		38.400
	Total						218.400
						Total Quantity in sqm	218.400
6.010	22.23.2						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage. For horizontal surface one coat @ 1.10 kg per sqm.</p>						
	Horizontal surface						
	base slab	1.0000 0	14.500	8.500			123.250
	Total						123.250
	Total Quantity in sqm						123.250
6.011	5.9.1						
	Centering and shuttering including strutting, etc. and removal of form for: Foundations, footings, bases of columns, etc for mass concrete						
	Form work Base slab						
	Base slab for sump	1.0000 0	46.000		0.250		11.500
	Column Foundation	8.0000 0	4.800		1.200		46.080
	Total						57.580
	Total Quantity in sqm						57.580
6.012	5.9.2						
	Centering and shuttering including strutting, etc. and removal of form for: Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.						
	Form work Sump- wall, pump house, Compound wall						
	Sump- wall outside	1.0000 0	46.000		4.000		184.000
	Sump- wall inside	1.0000 0	44.000		4.000		176.000
	Lintel	2.0000 0	15.700		0.150		4.710
	Compound wall	2.0000 0	49.000		0.300		29.400
	Total						394.110

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
Total Quantity in sqm							394.110
6.013	5.9.3						
	Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform						
	Form work						
	Cover slab of sump	1.0000 0	15.100	9.100			137.410
	deduction for wall	- 1.0000 0	45.000	0.250			-11.250
	Side of cover slab	1.0000 0	48.400		0.120		5.808
	Cover slab- PH	1.0000 0	6.700	3.700			24.790
	Side of cover slab- PH	1.0000 0	20.800	0.120			2.496
	deduction for wall PH	- 1.0000 0	18.400	0.200			-3.680
	Long beam Sump	2.0000 0	14.000	1.300			36.400
	Short beam Sump	4.0000 0	7.400	1.200			35.520
	Column sump	8.0000 0	1.200		3.250		31.200
	Column PH	6.0000 0	1.200		2.700		19.440
	Beam PH	6.0000 0	2.700		0.600		9.720
	Beam PH	1.0000 0	2.700		0.800		2.160
	sunshade	1.0000 0	21.600		0.600		12.960
	sunshade side	1.0000 0	21.600		0.075		1.620
	haunch	1.0000 0	44.000		0.800		35.200
	Total						339.794
Total Quantity in sqm							339.794
6.014	5.22.6						
	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more						
	Reinforcement @ 120kg/cum						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity	
	Sump	131.57 500				120.00 0000	15789.00 0	
	Compound wall	4.4100 0				20.000 000	88.200	
	Total						15877.20 0	
	Total Quantity in kilogram							15877.20 0
6.015	50.6.1.2							
	Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 part I of 1979 for super structure up to floor two level thickness 20cm and above in: CM 1:6 (1 cement: 6 coarse sand) etc complete.							
	Solid block masonry							
	wall PH	1.0000 0	18.400	0.200	2.700		9.936	
	Deduction- RS	- 1.0000 0	2.400	0.200	2.700		-1.296	
	Deduction- Window	- 5.0000 0	1.500	0.200	1.500		-2.250	
	Deduction for column width	- 6.0000 0	0.300	0.200	2.700		-0.972	
	Total						5.418	
	Total Quantity in cum							5.418
6.016	50.6.1.8							
	Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x15cm or nearest available size confirming to IS 2185 part I of 1979 for super structure up to floor two level with thickness 15cm in: CM 1:6 (1 cement : 6 coarse sand etc complete							
	Compound wall and parapet wall							
	Compound wall	1.0000 0	49.000	0.200	1.500		14.700	
	Parapet	1.0000 0	20.000	0.150	0.600		1.800	
	Total						16.500	
	Total Quantity in cum							16.500
6.017	13.7.1							
	12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	Plastering							

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
		1.0000 0					1.000
	Base slab for sump	1.0000 0	46.000		0.250		11.500
	Sump- wall outside	1.0000 0	46.000		3.750		172.500
	Sump- wall inside	1.0000 0	44.000		3.750		165.000
	Cover slab of sump top	1.0000 0	15.100	9.100			137.410
	deduction for wall	- 1.0000 0	45.000	0.250			-11.250
	Side of cover slab	1.0000 0	48.400		0.120		5.808
	Cover slab- PH top	1.0000 0	6.700	3.700			24.790
	Side of cover slab- PH	1.0000 0	20.800	0.120			2.496
	deduction for wall PH	- 1.0000 0	18.400	0.200			-3.680
	Column sump	8.0000 0	1.200		3.250		31.200
	Column PH	6.0000 0	1.200		2.700		19.440
	sunshade top	1.0000 0	21.600		0.600		12.960
	sunshade side	1.0000 0	21.600		0.075		1.620
	wall PH	2.0000 0	18.400		2.700		99.360
	Compound wall	1.0000 0	49.000		3.200		156.800
	Parapet	2.0000 0	20.000		0.600		24.000
	haunch	1.0000 0	44.000		0.800		35.200
	Total						886.154
	Deduction Plastering						
	Rolling shutter	- 2.0000 0	2.400		2.700		-12.960

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Window	- 10.000 00	1.500		1.500		-22.500
	Manhole cover	- 8.0000 0	0.455	0.610			-2.220
	Total						-37.680
						Total Quantity in sqm	848.474
6.018	13.16.1						
	6 mm cement plaster of mix:1:3 (1 cement : 3 fine sand)						
	6mm cement plaster						
	Cover slab of sump bottom	1.0000 0	15.100	9.100			137.410
	deduction for wall	- 1.0000 0	45.000	0.250			-11.250
	Cover slab- PH bottom	1.0000 0	6.700	3.700			24.790
	deduction for wall PH	- 1.0000 0	18.400	0.200			-3.680
	Long beam Sump	2.0000 0	14.000	1.300			36.400
	Short beam Sump	4.0000 0	7.400	1.200			35.520
	Beam PH	6.0000 0	2.700		0.600		9.720
	Beam PH	1.0000 0	2.700		0.800		2.160
	sunshade bottom	1.0000 0	21.600		0.600		12.960
	Total						244.030
						Total Quantity in sqm	244.030
6.019	13.47.1						
	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)						
	Painting						
	Rolling shutter	- 2.0000 0	2.400		2.700		-12.960
	Window	- 10.000 00	1.500		1.500		-22.500

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Manhole cover	8.0000 0	0.455	0.610			-2.220
	Base slab for sump	1.0000 0	46.000		0.250		11.500
	Sump- wall outside	1.0000 0	46.000		3.750		172.500
	deduction for wall	1.0000 0	45.000	0.250			-11.250
	Side of cover slab	1.0000 0	48.400		0.120		5.808
	Side of cover slab- PH	1.0000 0	20.800	0.120			2.496
	deduction for wall PH	1.0000 0	18.400	0.200			-3.680
	Column PH	6.0000 0	1.200		2.700		19.440
	sunshade top	1.0000 0	21.600		0.600		12.960
	sunshade side	1.0000 0	21.600		0.075		1.620
	wall PH	2.0000 0	18.400		2.700		99.360
	Compound wall	2.0000 0	49.000		1.500		147.000
	Parapet	2.0000 0	20.000		0.450		18.000
	deduction for wall	1.0000 0	45.000	0.250			-11.250
	Cover slab- PH bottom	1.0000 0	6.700	3.700			24.790
	deduction for wall PH	1.0000 0	18.400	0.200			-3.680
	Beam PH	6.0000 0	2.700		0.600		9.720
	Beam PH	1.0000 0	2.700		0.800		2.160
	sunshade bottom	1.0000 0	21.600		0.600		12.960
	Total						472.774
						Total Quantity in sqm	472.774

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
6.020	13.44.1						
	Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)						
	water proofing cement paint						
	Sump- wall inside	1.0000 0	44.000			3.350	147.400
	Long beam Sump	2.0000 0	14.000	1.300			36.400
	Short beam Sump	4.0000 0	7.400	1.200			35.520
	Column sump	8.0000 0	1.200			3.250	31.200
	haunch	1.0000 0	44.000			0.800	35.200
	Total						285.720
						Total Quantity in sqm	285.720
6.021	13.71						
	Lettering with black Japan pint of approved brand and manufacture						
	Lettering						
		100.00 000					100.000
	Total						100.000
						Total Quantity in per Letter per cm height	100.000
6.022	10.25.2						
	Item Shifted to Sub head 14 as item 14.73 Item Shifted to head 14 as item 14.74 Steel work welded in built up sections/framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works						
	For Ladder,gate and hand rail						
		950.00 000					950.000
	Total						950.000
						Total Quantity in kg	950.000
6.023	100.41.34						
	Supplying and fixing Rectangular C.I. manhole cover 455mm x 610mm with frame (low duty) charges including all cost, labour charges etc., complete.						
	Man hole cover						
		8.0000 0					8.000
	Total						8.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total Quantity in no						8.000
6.024	9.48.2						
	Providing and fixing M.S. Grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.Fixed to openings/ wooden frames with rawl plugs screws etc						
	M.S Grill						
		150.00 000					150.000
	Total						150.000
	Total Quantity in kg						150.000
6.025	10.6.1						
	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.80x1.25 mm M.S. laths with 1.25 mm thick top cover						
	Rolling shutter						
		1.0000 0	2.400		2.700		6.480
	Total						6.480
	Total Quantity in sqm						6.480
6.026	OD167313/2023-2024						
	:Providing suitable size ventilating arrangements by using 100 mm CI vent cowls as per the direction of departmental officers						
	Vent cowl						
		2.0000 0					2.000
	Total						2.000
	Total Quantity in no						2.000
6.027	21.1.1.2						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS : 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing /paneling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge.(Glazing, paneling and dash fasteners to be paid for separately): For fixed portion Powder coated aluminium (minimum thickness of powder coating 50 micron)						
	Aluminium works						
		1.0000 0	12.000				12.000
	Total						12.000
	Total Quantity in kg						12.000
6.028	21.1.2.2						
	For shutters of doors, windows & ventilators including providing and fixing hinges / pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber/ neoprene gasket required (Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder coating 50 micron)						
	Aluminium for shutters						
		1.0000 0	12.000				12.000
	Total						12.000
	Total Quantity in kg						12.000
6.029	21.3.1						
	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer - in -Charge. (Cost of aluminium snap beading shall be paid in basic item):With float glass panes of 4.0 mm thickness						
	Glass for shutter						
		6.0000 0	0.750		1.500		6.750
	Total						6.750
	Total Quantity in sqm						6.750
6.030	21.15.2						
	Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary necessary screws etc. complete. Powder coated minimum thickness 50 micron aluminium						
	Fastners for windows						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
		10.000 00					10.000
	Total						10.000
						Total Quantity in no	10.000
6.031	18.26.1						
	Providing and laying flanged C.I. Standard specials such as tees, bends, collars, tapers, caps etc., suitable for flanged jointing as per IS : 1538 :Upto 300 mm dia						
	Providing and laying C.I standard specials						
	250mm wall casting pipes for inlet, overflow etc	2.0000 0				0.4700 00	0.940
	100mm wall casting pipes for outlet, scour etc	2.0000 0				0.2000 00	0.400
	Total						1.340
						Total Quantity in quintal	1.340
6.032	100.36.1						
	Filling water with 5000 litre tankers fitted in lorry and conveying water from a distance of 5 km (average) to the reservoir site and pumping the water into the reservoir of height not less than 3 m using 5 HP diesel engine pump set , hire for tanker lorry, tools and other appliances and cost of water etc. complete.						
	Filling water						
		400.00 000					400.000
	Total						400.000
						Total Quantity in Kilo litre	400.000
6.033	OD167314/2023-2024						
	Supplying and providing water level indicator to the tank using scale fabricated out of 2mm thick MS plate with in the frame work of suitable size MS square tube, 160mm PVC pipe for guiding the float, necessary pullies, suitable nylon thread for connecting float and level indicator, painting the entire structure,						
	Level indicator						
		1.0000 0					1.000
	Total						1.000
						Total Quantity in each	1.000
7	Construction of 0.4LL Sump cum Pump house at Erachilpara						
7.001	2.31						
	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared						
	Cleaning jungle						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Tank & Pump house	1.0000 0	10.000	8.000			80.000
	Total						80.000
	Total Quantity in sqm						80.000
7.002	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						
	For levelling-Sump	1.0000 0	8.000	10.000	0.400		32.000
	For compound wall	1.0000 0	40.000	0.300	0.300		3.600
	For water tank	1.0000 0	7.100	5.100	0.150		5.432
	Footing for pcc	1.0000 0	1.300	1.300	0.350		0.592
	Total						41.624
	Total Quantity in cum						41.624
7.003	2.7.3						
	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Hard rock (blasting prohibited)						
	Levelling						
	for levelling sump	1.0000 0	6.000	4.000	0.500		12.000
	For Footing	1.0000 0	1.300	1.300	0.950		1.606
	Total						13.606
	Total Quantity in cum						13.606
7.004	OD167307/2023-2024						
	:DOWEL BARS_ Supplying and providing MS dowel bars of size 16 mm dia , 200 cm long including drilling holes of 20 mm dia to a depth of 100 cm in rock and filling the gap with cement grout (0.100kg/hole) etc complete						
	Dowel bar						
		80.000 00					80.000
	Total						80.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total Quantity in no						80.000
7.005	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						
	For water tank	1.0000 0	7.100	5.100	0.150		5.432
	Footing for pcc	1.0000 0	1.300	1.300	0.100		0.169
	Compound wall	1.0000 0	40.000	0.300	0.100		1.200
	Deduction for footing	- 1.0000 0	1.300	1.300	0.100		-0.169
	Total						6.632
	Total Quantity in cum						6.632
7.006	7.1.1						
	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)						
	RR masonry						
	sump basement	1.0000 0	6.700	4.700	0.700		22.043
	compound wall	1.0000 0	40.000	0.300	0.400		4.800
	deduction for column	- 1.0000 0	1.200	1.200	0.700		-1.008
	Total						25.835
	Total Quantity in cum						25.835
7.007	5.33.1						
	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work upto plinth level						
	M25 CC						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Water tank Base slab	1.0000 0	6.500	4.500	0.200		5.850
	Water tank Footing	1.0000 0	1.200	1.200	1.200		1.728
	compound wall	1.0000 0	40.000	0.200	0.200		1.600
	Total						9.178
						Total Quantity in cum	9.178
7.008	5.33.2 Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately. All work above plinth level upto floor V level						
	RCC M-25 Above plinth level						
	tank Side wall	1.0000 0	21.000	0.250	2.500		13.125
	Haunch	1.0000 0	20.000	0.700	0.400	0.5000 00	2.800
	Column tank	1.0000 0	0.300	0.300	2.400		0.216
	Cover slab of sump	1.0000 0	6.900	4.900	0.200		6.762
	long Beam tank	1.0000 0	6.000	0.250	0.250		0.375
	short Beam tank	1.0000 0	3.700	0.250	0.250		0.231
	Cover slab of PH	1.0000 0	4.900	3.780	0.120		2.223
	Lintel	1.0000 0	14.960	0.200	0.100		0.299
	Beam PH	1.0000 0	2.980	0.250	0.130		0.097
	Deduction- Manhole cover	- 4.0000 0	0.455	0.610	0.200		-0.222
	Total						25.906
						Total Quantity in cum	25.906
7.009	5.34.1						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately. Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).						
	Richer mixes						
	tank Side wall	1.0000 0	21.000	0.250	2.500		13.125
	Haunch	1.0000 0	20.000	0.700	0.400	0.5000 00	2.800
	Column tank	1.0000 0	0.300	0.300	2.400		0.216
	Cover slab of sump	1.0000 0	6.900	4.900	0.200		6.762
	Base slab	1.0000 0	6.500	4.500	0.200		5.850
	long Beam tank	1.0000 0	6.000	0.250	0.250		0.375
	short Beam tank	1.0000 0	3.700	0.250	0.250		0.231
	Cover slab of PH	1.0000 0	4.900	3.780	0.120		2.223
	Lintel	1.0000 0	14.960	0.200	0.100		0.299
	Beam PH	1.0000 0	2.980	0.250	0.130		0.097
	Deduction- Manhole cover	- 4.0000 0	0.455	0.610	0.200		-0.222
	Total						31.756
						Total Quantity in cum	31.756
7.010	22.23.1						
	<p>Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage. For vertical surface two coats @0.70 kg per sqm</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Integral crystalline slurry						
	tank Side wall	1.0000 0	21.000		2.500		52.500
	Column tank	1.0000 0	1.200		2.200		2.640
	Total						55.140
	Total Quantity in sqm						55.140
7.011	22.23.2						
	<p>Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage. For horizontal surface one coat @ 1.10 kg per sqm.</p>						
	Integral crystalline slurry						
	Water tank Base slab	1.0000 0	6.500	4.500	0.200		5.850
	Total						5.850
	Total Quantity in sqm						5.850
7.012	50.6.1.2						
	Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 part I of 1979 for super structure up to floor two level thickness 20cm and above in: CM 1:6 (1 cement: 6 coarse sand) etc complete.						
	Brick masonry						
	Long wall	2.0000 0	4.500	0.200	3.000		5.400
	Short wall	2.0000 0	2.980	0.200	3.000		3.576
	Deduction- Rolling shutter	- 1.0000 0	2.400	0.200	2.700		-1.296
	Deduction- Window	- 3.0000 0	1.500	0.200	1.500		-1.350

SI No	Specification	No	Length	Width	Depth	Cf	Quantity	
	Deduction of lintel	1.0000 0	14.960	0.200	0.150		-0.449	
	Total						5.881	
	Total Quantity in cum							5.881
7.013	50.6.1.8							
	Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x15cm or nearest available size confirming to IS 2185 part I of 1979 for super structure up to floor two level with thickness 15cm in: CM 1:6 (1 cement : 6 coarse sand etc complete							
	Compound wall and parapet wall							
	Compound wall	1.0000 0	40.000	0.150	1.500		9.000	
	Parapet wall	1.0000 0	15.600	0.150	0.750		1.755	
	Total						10.755	
	Total Quantity in cum							10.755
7.014	5.9.1							
	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	Form work							
	Base slab for tank	1.0000 0	21.000		0.200		4.200	
	column Foundation	1.0000 0	4.800		1.200		5.760	
	Compound wall	2.0000 0	40.000		0.200		16.000	
	Total						25.960	
	Total Quantity in sqm							25.960
7.015	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.							
	Centering and Shuttering							
	Tank- side wall outside	1.0000 0	22.000		2.500		55.000	
	Tank-side wall inside	1.0000 0	20.000		2.500		50.000	
	column	1.0000 0	1.200		2.200		2.640	
	Total						107.640	
	Total Quantity in sqm							107.640
7.016	5.9.3							

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform						
	Centering and Shuttering						
	Tank cover slab	1.0000 0	7.100	5.100			36.210
	Tank cover slab sides	1.0000 0	24.400		0.200		4.880
	beams	1.0000 0	10.000		0.500		5.000
	Cover slab- PH	1.0000 0	4.900	3.780			18.522
	Side of cover slab -PH	1.0000 0	17.360		0.120		2.083
	PH-Beam	2.0000 0	2.850	0.560			3.192
	Sun shade	3.0000 0	1.800	0.600			3.240
	sunshade side	3.0000 0	3.000		0.075		0.675
	lintel	2.0000 0	11.980		0.100		2.396
	Total						76.198
						Total Quantity in sqm	76.198
7.017	5.22.6						
	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more						
	Reinforcement @ 120kg/cum						
		35.084 00				120.00 0000	4210.080
	Total						4210.080
						Total Quantity in kilogram	4210.080
7.018	13.7.1						
	12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)						
	Plastering in CM 1:3						
	Side wall outer and base slab	1.0000 0	22.000		2.700		59.400
	Side wall inside	1.0000 0	20.000		2.500		50.000
	haunch	1.0000 0	20.000		0.800		16.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	column	1.0000 0	1.200		2.400		2.880
	roof slab	2.0000 0	7.100	5.100			72.420
	roof slab side	1.0000 0	24.400		0.200		4.880
	PH wall outer	1.0000 0	15.760		3.000		47.280
	PH wall inner	1.0000 0	14.160		3.000		42.480
	PH slab	2.0000 0	3.780	4.900			37.044
	PH slab side	2.0000 0	17.360		0.120		4.166
	parapet	2.0000 0	16.960		0.450		15.264
	parapet top	1.0000 0	16.960		0.150		2.544
	manhole side	4.0000 0	2.130		0.200		1.704
	Deduction windows	- 3.0000 0	1.500		1.500		-6.750
	Deduction RS	- 1.0000 0	2.400		2.700		-6.480
	Compound wall	1.0000 0	40.000		3.150		126.000
	Total						468.832
						Total Quantity in sqm	468.832
7.019	13.47.1						
	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)						
	Painting						
	Side wall outer and base slab	1.0000 0	22.000		2.700		59.400
	roof slab	2.0000 0	7.100	5.100			72.420
	roof slab side	1.0000 0	24.400		0.200		4.880
	PH wall outer	1.0000 0	15.760		3.000		47.280
	PH wall inner	1.0000 0	14.160		3.000		42.480

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	PH slab	2.0000 0	3.780	4.900			37.044
	PH slab side	2.0000 0	17.360		0.120		4.166
	parapet	2.0000 0	16.960		0.450		15.264
	manhole side	4.0000 0	2.130		0.200		1.704
	Deduction for windows	- 3.0000 0	1.500		1.500		-6.750
	Deduction for RS	- 1.0000 0	2.400		2.700		-6.480
	Compound wall	1.0000 0	40.000		3.150		126.000
	Total						397.408
						Total Quantity in sqm	397.408
7.020	13.71						
	Lettering with black Japan pint of approved brand and manufacture						
	Lettering						
		80.000 00					80.000
	Total						80.000
						Total Quantity in per Letter per cm height	80.000
7.021	10.25.2						
	Item Shifted to Sub head 14 as item 14.73 Item Shifted to head 14 as item 14.74 Steel work welded in built up sections/framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works						
	Steel for ladder						
		1.0000 0				600.00 0000	600.000
	Total						600.000
						Total Quantity in kg	600.000
7.022	100.41.34						
	Supplying and fixing Rectangular C.I. manhole cover 455mm x 610mm with frame (low duty) charges including all cost, labour charges etc., complete.						
	Man hole cover						
		4.0000 0					4.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						4.000
							Total Quantity in no
							4.000
7.023	9.48.2						
	Providing and fixing M.S. Grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.Fixed to openings/ wooden frames with rawl plugs screws etc						
	MS Grill						
		1.0000 0				70.000 000	70.000
	Total						70.000
							Total Quantity in kg
							70.000
7.024	10.6.1						
	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.80x1.25 mm M.S. laths with 1.25 mm thick top cover						
	Rolling shutter						
		1.0000 0	2.400			3.000	7.200
	Total						7.200
							Total Quantity in sqm
							7.200
7.025	21.1.1.2						
	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS : 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing /paneling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge.(Glazing, paneling and dash fasteners to be paid for separately): For fixed portion Powder coated aluminium (minimum thickness of powder coating 50 micron)						
	Aluminium works						
		1.0000 0	12.000				12.000
	Total						12.000
							Total Quantity in kg
							12.000
7.026	21.1.2.2						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	For shutters of doors, windows & ventilators including providing and fixing hinges / pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber/ neoprene gasket required (Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder coating 50 micron)						
	Aluminium for shutters						
		1.0000 0	10.000				10.000
	Total						10.000
	Total Quantity in kg						10.000
7.027	21.3.1						
	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer - in -Charge. (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 4.0 mm thickness						
	Glass for shutter						
		3.0000 0	1.500	1.500		1.2500 00	8.438
	Total						8.438
	Total Quantity in sqm						8.438
7.028	OD167308/2023-2024						
	Supply conveyance ,installation testing and commissioning of 36/40 W LED street/Yard light out put greater than 105 lumen/watts 4000-6000K with IP66 protection with LED chip make cree/Lumiled/Nichea with powerfactor greater than 0.95 at full load ,internal surge protection up to 8 kv and alluminium pressure die cast powder coated housing acrylic cover complete with THD less than 10% power factor greater than 0.98 R0HS compliant duly wired up for use on 230v AC supply. Driver compartment should be separately accessible for maintainance (LM 79&80 Certificate from NABL accredited third party lab produced mentioning chip manufacturer)						
	LED						
		4.0000 0					4.000
	Total						4.000
	Total Quantity in no						4.000
7.029	OD167309/2023-2024						
	Taking new electrical connection from KSEBL						
		1.0000 0					1.000
	Total						1.000
	Total Quantity in 1 nos						1.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
7.030	OD167310/2023-2024						
	Charges for Supply, Installation, Trial run and commissioning of CCTV cameras in Raw water pump houses which includes providing 2Nos 5 MP camera with motion sensor and 30m vision, 5 MP or Higher HD out DVR,1TB HDD,4G Router, Cable 10m,Rack, 500VA UPS, etc complete						
	CCTV						
		1.0000 0					1.000
	Total						1.000
	Total Quantity in 1 nos						1.000
7.031	18.26.1						
	Providing and laying flanged C.I. Standard specials such as tees, bends, collars, tapers, caps etc., suitable for flanged jointing as per IS : 1538 :Upto 300 mm dia						
	Providing and laying C.I standard specials						
	150mm wall casting pipes for inlet,overflow etc	2.0000 0				0.4700 00	0.940
	100mm wall casting pipes for outlet,scour etc	2.0000 0				0.2000 00	0.400
	Total						1.340
	Total Quantity in quintal						1.340
7.032	100.36.1						
	Filling water with 5000 litre tankers fitted in lorry and conveying water from a distance of 5 km (average) to the reservoir site and pumping the water into the reservoir of height not less than 3 m using 5 HP diesel engine pump set , hire for tanker lorry, tools and other appliances and cost of water etc. complete.						
	Filling water						
		40.000 00					40.000
	Total						40.000
	Total Quantity in Kilo litre						40.000
7.033	OD167311/2023-2024						
	Supplying and providing water level indicator to the tank using scale fabricated out of 2mm thick MS plate with in the frame work of suitable size MS square tube, 160mm PVC pipe for guiding the float, necessary pullies, suitable nylon thread for connecting float and level indicator, painting the entire structure,						
	Level indicator						
		1.0000 0					1.000
	Total						1.000
	Total Quantity in each						1.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
8	Construction of 3LL Sump cum Pump house at James padi						
8.001	2.31						
	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared						
	clearing jungle						
	clearing jungle	1.0000 0	12.000	10.000			120.000
	Total						120.000
	Total Quantity in sqm						120.000
8.002	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 by mechanical						
	Earth work by mechanical	1.0000 0	11.000	10.000	0.300		33.000
	Total						33.000
	Total Quantity in cum						33.000
8.003	2.7.2						
	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Hard rock (requiring blasting)						
	excavation above 30 cm						
	excavation above 30 cm	1.0000 0	11.000	10.000	0.300		33.000
	Earth work for footing	3.0000 0	1.400	1.400	0.600		3.528
	Total						36.528
	Total Quantity in cum						36.528
8.004	OD167331/2023-2024						
	Dowel bars - Supplying and providing MS dowel bars of size 16mm dia of 2m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia and filling the gap with cement grout (.5kg/each) etc...						
	Dowel bars						
	Dowel bars	150.00 000					150.000
	Total						150.000
	Total Quantity in no						150.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
8.005	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						
	PCC	1.0000 0	10.600	8.600	0.150		13.674
	compound wall	1.0000 0	44.000	0.200	0.100		0.880
	Total						14.554
	Total Quantity in cum						14.554
8.006	5.33.1						
	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work upto plinth level						
	M25 MIx						
	for footing	3.0000 0	1.200	1.200	0.500		2.160
	Base slab	1.0000 0	10.500	8.500	0.200		17.850
	deduction	- 3.0000 0	1.200	1.200	0.200		-0.864
	Total						19.146
	Total Quantity in cum						19.146
8.007	5.33.2						
	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work above plinth level upto floor V level						
	RCC above Plinth						
	side wall 1	2.0000 0	10.500	0.250	4.000		21.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	side wall 2	2.0000 0	8.000	0.250	4.000		16.000
	Haunch	1.0000 0	36.000	0.400	0.700	0.5000 00	5.040
	tank cover slab	1.0000 0	11.100	9.100	0.200		20.202
	tank beam short	1.0000 0	8.000	0.250	0.100		0.200
	tank beam long	1.0000 0	10.000	0.250	0.100		0.250
	column inside tank	3.0000 0	0.300	0.250	3.900		0.878
	PH Column	1.0000 0	0.300	0.250	3.000		0.225
	PH lintel	1.0000 0	18.620	0.200	0.100		0.372
	PH shade	3.0000 0	1.800	0.600	0.075		0.243
	PH cover slab	1.0000 0	5.780	4.730	0.120		3.281
	PH beam	2.0000 0	4.400	0.250	0.130		0.286
	deduction for manhole	- 6.0000 0	0.455	0.610	0.150		-0.250
	Total						67.727
						Total Quantity in cum	67.727
8.008	5.34.1						
	Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately. Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).						
	M30 enrich						
	side wall 1	2.0000 0	10.500	0.250	4.000		21.000
	side wall 2	2.0000 0	8.000	0.250	4.000		16.000
	Haunch	1.0000 0	36.000	0.400	0.700	0.5000 00	5.040
	tank cover slab	1.0000 0	11.100	9.100	0.200		20.202
	Base slab	1.0000 0	10.500	8.500	0.200		17.850
	tank beam short	1.0000 0	8.000	0.250	0.100		0.200

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	tank beam long	1.0000 0	10.000	0.250	0.100		0.250
	column inside tank	3.0000 0	0.300	0.250	3.900		0.878
	PH Column	1.0000 0	0.300	0.250	3.000		0.225
	PH lintel	1.0000 0	18.620	0.200	0.100		0.372
	PH shade	3.0000 0	1.800	0.600	0.075		0.243
	PH cover slab	1.0000 0	5.780	4.730	0.120		3.281
	PH beam	2.0000 0	4.400	0.250	0.130		0.286
	deduction for manhole	- 6.0000 0	0.455	0.610	0.150		-0.250
	Total						85.577
						Total Quantity in cum	85.577
8.009	50.6.1.3 Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 Part I of 1979 for super structure above floor two level up to floor V level thickness 20cm and above in: CM 1:6 (1 cement :6 coarse sand) etc complete						
	Solid block masonry						
	long wall	2.0000 0	5.400	0.200	3.000		6.480
	short wall	2.0000 0	4.000	0.200	3.000		4.800
	shutter	- 1.0000 0	3.000	0.200	2.700		-1.620
	Windows	- 3.0000 0	1.500	0.200	1.500		-1.350
	Total						8.310
						Total Quantity in cum	8.310
8.010	50.6.1.9 Solid block masonry using pre cast solid blocks(Factory made) of size 40x20x15 cm or nearest available size confirming to IS 2185 part I of 1979 for super structure above floor two level upto floor five level with thickness 15cm in: CM 1:6 (1 cement : 6 coarse sand) etc complete						
	Compound wall and parapet wall						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	parapet	1.0000 0	20.900	0.150	0.450		1.411
	compound wall	1.0000 0	44.000	0.150	1.500		9.900
	Total						11.311
						Total Quantity in cum	11.311
8.011	21.1.1.2						
	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS : 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing /paneling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge.(Glazing, paneling and dash fasteners to be paid for separately): For fixed portion Powder coated aluminium (minimum thickness of powder coating 50 micron)						
	Aluminium works						
	Aluminium works	3.0000 0				4.0000 00	12.000
	Total						12.000
						Total Quantity in kg	12.000
8.012	21.1.2.2						
	For shutters of doors, windows & ventilators including providing and fixing hinges / pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber/ neoprene gasket required (Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder coating 50 micron)						
	Aluminium for Shutters						
	Aluminium for Shutters	3.0000 0				3.0000 00	9.000
	Total						9.000
						Total Quantity in kg	9.000
8.013	21.3.1						
	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer - in -Charge. (Cost of aluminium snap beading shall be paid in basic item):With float glass panes of 4.0 mm thickness						
	Glass for shutter						
	Glass for shutter	3.0000 0	1.500	1.500		1.2500 00	8.438

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						8.438
						Total Quantity in sqm	8.438
8.014	5.9.1						
	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						
	Shuttering for base and footing						
	shuttering for footing	3.0000 0	4.800	0.500			7.200
	shuttering for base slab	1.0000 0	36.000	0.200			7.200
	Total						14.400
						Total Quantity in sqm	14.400
8.015	5.9.3						
	Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform						
	shuttering and form works						
	sidewall outside	2.0000 0	10.500	4.000			84.000
	sidewall outside	2.0000 0	8.500	4.000			68.000
	sidewall inside	2.0000 0	10.000	3.600			72.000
	sidewall inside	2.0000 0	8.000	3.600			57.600
	cover slab	1.0000 0	11.100	9.100			101.010
	cover slab side	1.0000 0	38.400	0.200			7.680
	long beam	1.0000 0	10.000	0.500			5.000
	cross beam	1.0000 0	8.000	0.500			4.000
	column side 1	3.0000 0	1.100		3.900		12.870
	column PH	1.0000 0	1.100		2.850		3.135
	pump house lintel	2.0000 0	18.680	0.100			3.736
	pump house cover slab	1.0000 0	5.780	4.730			27.339
	pump house slab side	1.0000 0	21.020	0.120			2.522

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	pump house beam	2.0000 0	4.330	0.750			6.495
	pump house shade	2.0000 0	1.800	0.600			2.160
	pump house shade side	2.0000 0	3.000	0.075			0.450
	Haunch	1.0000 0	36.000	0.800			28.800
	side for Man hole	6.0000 0	2.130	0.150			1.917
	deduction for manhole	- 6.0000 0	0.610	0.455			-1.665
	deduction for beams	- 1.0000 0	17.500	0.250			-4.375
	Total						482.674
						Total Quantity in sqm	482.674
8.016	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						
	Reinforcement						
	Steel	86.873 00				120.00 0000	10424.76 0
	Total						10424.76 0
						Total Quantity in kilogram	10424.76 0
8.017	13.7.1						
	12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)						
	Plastering 12MM thick						
	Outside wall and basement	1.0000 0	38.000	4.200			159.600
	inside wall of tank	1.0000 0	36.000	3.600			129.600
	Haunch	1.0000 0	36.000	0.800			28.800
	column inside tank	3.0000 0	1.100		3.700		12.210
	cover slab bottom and top	2.0000 0	10.500	8.500			178.500

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	cover slab side	1.0000 0	38.000	0.150			5.700
	side of manhole	6.0000 0	2.130	0.150			1.917
	PH wall outside	1.0000 0	19.420	3.000			58.260
	PH wall inside	1.0000 0	17.820	3.000			53.460
	parapet	2.0000 0	20.720		0.450		18.648
	PH slab Top and Bottom	2.0000 0	5.780	4.730			54.679
	PH side of slab	1.0000 0	21.020	0.120			2.522
	Beam	2.0000 0	4.400	0.750			6.600
	column	1.0000 0	1.100	2.750			3.025
	sunshade top and bottom	4.0000 0	1.800	0.600			4.320
	sunshade side	2.0000 0	3.000	0.075			0.450
	deduction for rolling shutter	- 1.0000 0	3.000		2.700		-8.100
	deduction for window	- 3.0000 0	1.500		1.500		-6.750
	Compound wall	1.0000 0	44.000		3.150		138.600
	Total						842.041
						Total Quantity in sqm	842.041
8.018	22.23.1						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage. For vertical surface two coats @0.70 kg per sqm</p>						
	Integral crystalline slurry						
	side wall 1	2.0000 0	10.500		4.000		84.000
	side wall 2	2.0000 0	8.000		4.000		64.000
	column inside tank	3.0000 0	1.200		3.900		14.040
	Total						162.040
	Total Quantity in sqm						162.040
8.019	22.23.2						
	<p>Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage. For horizontal surface one coat @1.10 kg per sqm.</p>						
	Integral crystalline slurry						
	Base slab	1.0000 0	10.500	8.500			89.250
	Total						89.250
	Total Quantity in sqm						89.250

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
8.020	13.47.1						
	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade: New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)						
	Premium Acrylic Exterior Paint						
	Outside wall and basement	1.0000 0	38.000	4.200			159.600
	cover slab side	1.0000 0	38.000	0.150			5.700
	side of manhole	6.0000 0	2.130	0.150			1.917
	PH wall outside	1.0000 0	19.420	3.000			58.260
	PH wall inside	1.0000 0	17.820	3.000			53.460
	parapet	2.0000 0	20.720		0.450		18.648
	PH slab Top and Bottom	2.0000 0	5.780	4.730			54.679
	PH side of slab	1.0000 0	21.020	0.120			2.522
	Beam	2.0000 0	4.400	0.750			6.600
	column	1.0000 0	1.100	2.750			3.025
	sunshade top and bottom	4.0000 0	1.800	0.600			4.320
	sunshade side	2.0000 0	3.000	0.075			0.450
	deduction for rolling shutter	- 1.0000 0	3.000		2.700		-8.100
	deduction for window	- 3.0000 0	1.500		1.500		-6.750
	Compound wall	1.0000 0	44.000		3.150		138.600
	Total						492.931
						Total Quantity in sqm	492.931
8.021	13.71						
	Lettering with black Japan pint of approved brand and manufacture						
	Lettering						
	Lettering	80.000 00					80.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity	
	Total						80.000	
	Total Quantity in per Letter per cm height							80.000
8.022	10.25.2							
	Item Shifted to Sub head 14 as item 14.73 Item Shifted to head 14 as item 14.74 Steel work welded in built up sections/framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works							
	Ladder etc							
	Ladder etc	850.00 000					850.000	
	Total						850.000	
	Total Quantity in kg							850.000
8.023	100.41.34							
	Supplying and fixing Rectangular C.I. manhole cover 455mm x 610mm with frame (low duty) charges including all cost, labour charges etc., complete.							
	Man hole cover							
	Man hole cover	6.0000 0					6.000	
	Total						6.000	
	Total Quantity in no							6.000
8.024	10.6.1							
	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.25 mm M.S. laths with 1.25 mm thick top cover							
	Rolling shutter							
	Rolling shutter	1.0000 0	3.000		2.700		8.100	
	Total						8.100	
	Total Quantity in sqm							8.100
8.025	9.48.2							
	Providing and fixing M.S. Grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to openings/ wooden frames with rawl plugs screws etc							
	MS Grill							
	MS Grill	80.000 00					80.000	

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						80.000
						Total Quantity in kg	80.000
8.026	18.26.1						
	Providing and laying flanged C.I. Standard specials such as tees, bends, collars, tapers, caps etc., suitable for flanged jointing as per IS : 1538 :Upto 300 mm dia						
	Providing and laying C.I standard specials						
	200mm wall casting pipes for inlet, overflow etc	2.0000 0				0.4700 00	0.940
	100mm wall casting pipes for outlet, scour etc	2.0000 0				0.2000 00	0.400
	Total						1.340
						Total Quantity in quintal	1.340
8.027	OD167332/2023-2024						
	Supplying and providing water level indicator to the tank using scale fabricated out of 2mm thick MS plate with in the frame work of suitable size MS square tube, 160mm PVC pipe for guiding the float, necessary pullies, suitable nylon thread for connecting float and level indicator, painting the entire structure,						
	Level indicator						
		1.0000 0					1.000
	Total						1.000
						Total Quantity in each	1.000
8.028	100.36.1						
	Filling water with 5000 litre tankers fitted in lorry and conveying water from a distance of 5 km (average) to the reservoir site and pumping the water into the reservoir of height not less than 3 m using 5 HP diesel engine pump set , hire for tanker lorry, tools and other appliances and cost of water etc. complete.						
	Filling water						
		300.00 000					300.000
	Total						300.000
						Total Quantity in Kilo litre	300.000
9	Road restoration charges PWD/SH/NH						
9.001	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						
	Excavation						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Berm PWD	1.0000 0	100.000	0.900	0.150		13.500
	Berm SH/NH	1.0000 0	200.000	0.600	0.150		18.000
	CC Pavement PWD/SH	1.0000 0	1485.000	0.900	0.300		400.950
	CC Pavement NH	1.0000 0	4800.000	0.600	0.300		864.000
	Tar cut NH/SH	1.0000 0	250.000	0.600	0.300		45.000
	Tar cut PWD	1.0000 0	100.000	0.900	0.300		27.000
	Total						1368.450
						Total Quantity in cum	1368.450
9.002	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						
	GSB						
	Berm PWD	1.0000 0	100.000	0.900	0.150		13.500
	Berm SH/NH	1.0000 0	200.000	0.600	0.150		18.000
	CC Pavement PWD/SH	1.0000 0	1485.000	0.900	0.150		200.475
	CC Pavement NH	1.0000 0	4800.000	0.600	0.150		432.000
	Tar cut NH/SH	1.0000 0	250.000	0.600	0.150		22.500
	Tar cut PWD	1.0000 0	100.000	0.900	0.150		13.500
	Total						699.975
						Total Quantity in cum	699.975
9.003	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.						
	WMM						
	Tar cut NH/SH	1.0000 0	250.000	0.600	0.150		22.500

SI No	Specification	No	Length	Width	Depth	Cf	Quantity	
	Tar cut PWD	1.0000 0	100.000	0.900	0.150		13.500	
	Total						36.000	
	Total Quantity in cum							36.000
9.004	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.							
	Primer coat							
	Tar cut NH/SH	1.0000 0	250.000	1.500			375.000	
	Tar cut PWD	1.0000 0	100.000	1.350			135.000	
	Total						510.000	
	Total Quantity in sqm							510.000
9.005	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.							
	Tack coat							
	Tar cut NH/SH	1.0000 0	250.000	1.500			375.000	
	Tar cut PWD	1.0000 0	100.000	1.350			135.000	
	Total						510.000	
	Total Quantity in sqm							510.000
9.006	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)							
	BM							
	BM	1.0000 0	250.000	1.500	0.050		18.750	
	Total						18.750	
	Total Quantity in cum							18.750
9.007	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.							

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	tack coat						
	Tar cut NH/SH	1.0000 0	250.000	1.500			375.000
	Total						375.000
						Total Quantity in sqm	375.000
9.008	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 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						
	Tar cut NH/SH	1.0000 0	250.000	1.500	0.030		11.250
	Total						11.250
						Total Quantity in cum	11.250
9.009	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.						
	Close graded premix						
	TAR CUT PWD	1.0000 0	100.000	1.350			135.000
	Total						135.000
						Total Quantity in sqm	135.000
9.010	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						
	Seal coat						
	TAR CUT PWD	1.0000 0	100.000	1.350			135.000
	Total						135.000
						Total Quantity in sqm	135.000
9.011	12.4						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	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.						
	PCC 40mm						
	CC Pavement PWD/SH	1.0000 0	1485.000	0.900	0.100		133.650
	CC Pavement NH	1.0000 0	4800.000	0.600	0.100		288.000
	Total						421.650
	Total Quantity in cum						421.650
9.012	12.8.B.1						
	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications PCC Grade M20						
	Wearing Coat						
	CC Pavement PWD/SH	1.0000 0	1485.000	0.900	0.075		100.238
	CC Pavement NH	1.0000 0	4800.000	0.600	0.075		216.000
	Total						316.238
	Total Quantity in cum						316.238
10	Road restoration charges -LSGD						
10.00 1	3.5.3						
	Excavation in Soil using Hydraulic Excavator and Tippers with disposal upto 1000 m 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						
	Excavation						
	Tar Road	1.0000 0	250.000	0.600	0.300		45.000
	For Concrete Road	1.0000 0	550.000	0.500	0.300		82.500
	Total						127.500
	Total Quantity in cum						127.500
10.00 2	4.1.A.1						
	Granular Sub-base with Well Graded Material (Table 400.1) (A) By Mix in Place Method 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 Clause 401. (i) For Grading I Material						
	GSB						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity	
	Tar Road	1.0000 0	250.000	0.600	0.150		22.500	
	For Concrete Road	1.0000 0	550.000	0.500	0.150		41.250	
	Total						63.750	
	Total Quantity in cum							63.750
10.00 3	4.9 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 lighting, 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							
	WMM							
	Tar road	1.0000 0	250.000	0.600	0.150		22.500	
	Total						22.500	
	Total Quantity in cum							22.500
10.00 4	5.1.1a Prime Coat :- Low porosity 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							
	Prime coat							
	for tar road	1.0000 0	250.000	1.000			250.000	
	Total						250.000	
	Total Quantity in sqm							250.000
10.00 5	5.2.3a Tack Coat 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.							
	Tack coat							
	for tar road	1.0000 0	250.000	1.000			250.000	
	Total						250.000	
	Total Quantity in sqm							250.000
10.00 6	5.9.1.2a							

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	20mm thick Open-Graded Premix Carpet using Bituminous (penetration grade/modified bitumen) Binder - Bitumen S-65 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. Case - I By Manual Means (II) Bitumen (S-65)						
	OGPC						
	for tar road	1.0000 0	250.000	1.350			337.500
	Total						337.500
	Total Quantity in sqm						337.500
10.00 7	5.12.A.3.2a						
	Seal Coat - Manual Means - Type C - Bitumen S-65 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 A. By Manual Means :- Case - III : Type C (II) Bitumen (S-65)						
	Seal coat						
	for tar road	1.0000 0	250.000	1.350			337.500
	Total						337.500
	Total Quantity in sqm						337.500
10.00 8	11.4.3.1						
	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203 III. P.C.C. grade M 20 (i) Nominal mix (1:2:4)						
	Cement concrete						
	for concrete road	1.0000 0	550.000	0.900	0.150		74.250
	Total						74.250
	Total Quantity in cum						74.250
11	Electrification works and Supply erection testing and commissioning of pump sets at Erachilpara						
11.00 1	OD167333/2023-2024						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>Supply, erection & commissioning of best quality KWA approved make ISI marked centrifugal pumpset having a 15 LPS discharge against 130 M head at its maximum efficiency working at 230/415V at 50 Hz, 1450 rpm with bronze impeller, stainless steel shaft, CI/SS pump casing with suitable type base plate, including suitable fully Automatic starter with dry run, under voltage, over voltage & over current protection relay, MS panel board with MCCB, ELCB, Capacitor, Indicator lamps, voltmeter, ammeter, change over switch etc suitable for the above motor pump set including necessary copper cable for wiring, earthing, suitable size GM/CI non return & sluice valves, suction & delivery connections etc as per ISI and IE regulations & KSEB standard and erected & trial run conducted for 7days as per the direction of dept. officers and 2 years of free maintenance. If any documentation is required, that should be arranged by the supplier.A). PUMP:- Supply , erection , testing and commissioning of Kirloskar reputed make centrifugal pumpsets with Bronze/SS impeller , SS shaft and CI pump casing with suitable type of base plate with coupling ,coupling guard foundation bolts and nuts etc. complete suitable for coupling the pump and motor above the base&lt;br&gt;plate etc complete including providing suitable concrete foundation including cost of cement , sand and metal etc complete the duty condition is as follows discharge -15 lps, total head - 130m,Speed -1460 rpm, &lt;br&gt;(B). MOTOR:- supply , erection , testing and commissioning of Kirloskar reputed make horizontal solid shaft foot mounted TEFC square cage induction motor suitable for the above pump working 3 phase 50HZ AC supply , working voltage&lt;br&gt;415 V / 3300 V . The motor shall confirm to IE2/IE3 as per IS 12615-2018 including providing suitable concrete foundation including cost of cement, sand and metal etc complete. Flexible coupling shall be used for coupling of pumps and motors&lt;br&gt;(C).STARTER:- Supply ,erection, testing and commissioning of dry type copper wound auto transformer having 40,60,80% tapping mounded with powder coated 2 mm thick steel sheath dust and vermin proof floor mounted control cubical panel associated with in/out cable entry boxes for accommodating the following parameters for controlling functions of the the fully automatic auto transformer starter. suitable for above motor - L&T or equivalent reputed co. make MNX 225 contactor unit -1 No L&T or equivalent Co make MNX 95 contactor unit- 2 Nos Timer and supervisory trip relay 1 No OV/UV control relays Minilac or equivalent Co make single phasing preventer AVF digital meter 1 No and selector switch - 1 set ON/Off ,trip & 3 phase indication lamps, Digital or numerical motor protection relay Power Circuit wiring with 25 x 4mm PVC sleeve insulated copper bar and 2.5 sq.mm control wiring &lt;br&gt;(D).PANNEL BOARD :- Supply, erection,testing and commissioning of cubical type floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable rating of 3 pole MCCB as incomer providing suitable size Aluminium bus bar inter connect the above MCCB and fitted with 3 Nos of indicator lamps, 1 No. volt meter with selector switch, 1 No. Ammeter with selector switch etc. complete and provided with duplicate earth point as per CEA regulation and code of practice. the panel shall be fitted on a common base frame on suitable foundation &lt;br&gt;(E).CABLING WORK:- Supply, laying, testing and commissioning of suitable size Aluminium conductor armoured cables for the above pump set from panel board to starter and suitable size cable through PVC pipe, flexible hose and accessories from starter to motor.considering energy conservation &lt;br&gt;(F). EARTHING:- Supply of all material and providing duplicate earthing by 25 x 3mm copper strip on wall /column/floor/buried (Appx. 20 mtrs) in ground and giving double earthing to motor,starter,panel board etc. and connect with existing earthbus. As per IE standards &lt;br&gt;</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>(G).CAPACITOR:- Supply,erection,testing and commissioning suitable rating of of heavy duty APP capacitor for the above motor to get unity
power factor . The capacitor shall confirm to IS 2834
;</p> <p>(H).VALVE:- Supply of suitable size best quality heavy duty ISI Marked CI double fanged sluice valve and Non return valve with suitable pressure rating.fitting of valves shall include proper RCC support especially for Non return valves. In case of positive suction pump set sluice valve should be in suction as well as delivery sides for easy repair works. Pressure gauge on both suction and delivery side</p> <p>

;(I).SUCTION AND DELIVERY PIPE CONNECTIONS:- Supply and fitting of suitable size best quality MS pipe of thickness not less than 8 mm for a total length of 8 m (approx). suitable for the above pump set and suitable size foot valve and connecting the suction pipe of size 200mm MS and valve with suitable flanges, nut and bolts IR sheet etc. complete and connecting the delivery side of the pump with 150mm MS pipe of thickness not less than 8 mm for a total length of 8 m (approx) , vales and suitable specials to connect with the pumping main</p>						
	pump sets						
		2.0000 0					2.000
	Total						2.000
	Total Quantity in no						2.000
11.00 2	<p>OD167334/2023-2024</p> <p>Supply & installation of light fittings on TW round block Supply, conveyance installation testing and commissioning the light fittings of following types made of CRCA with 0.5mm thickness complete with all accessories and lamps etc. directly on wall or ceiling with PVC round block neatly painted to suit the fitting and giving connection with required length of 16/0.20mm 3 core copper conductor flex wire conforming to relevant ISS and giving connections as required. 1x28wT5 fitting with APF electronic ballast suitable for continuous operation with THD less than 10%, power factor greater than 0.98, RoHS compliant, high lumen tube .</p>						
	Led Tube set						
		6.0000 0					6.000
	Total						6.000
	Total Quantity in no						6.000
11.00 3	<p>OD167335/2023-2024</p> <p>Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required. As per Databook DAR Electrical-5.14.</p>						
	25mm x 5 mm copper strip for earthing						
		1.0000 0	8.000				8.000
	Total						8.000
	Total Quantity in metre						8.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
11.00 4	OD167336/2023-2024						
	25mm PVC Conduit- Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required. 25 mm .As per Databook DAR Electrical-1.21.2.						
	25 mm pvc conduit						
		1.0000 0	6.000				6.000
	Total						6.000
						Total Quantity in metre	6.000
11.00 5	OD167337/2023-2024						
	Wiring with 3x 4 sq mm FRLS PVC insulated copper conductor-Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existingsurface / recessed steel/ PVC conduit as required. 3 x 4 sq. mm As per databook DAR Electrical-1.17.21.						
	From Main DB to Light DB						
		1.0000 0	6.000				6.000
	Total						6.000
						Total Quantity in metre	6.000
11.00 6	OD167338/2023-2024						
	12 Way MCB DB 240V -Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCBIRCCB/Isolator 12 way, Double door. As per Databook DAR Electrical-2.3.3.						
	12 way MCB DB						
		1.0000 0					1.000
	Total						1.000
						Total Quantity in no	1.000
11.00 7	OD167339/2023-2024						
	SPN 5-32A MCB-Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Single pole and netural .As per Databook DAR Electrical-2.10.2.						
	MCB 5 -32 A						
		2.0000 0					2.000
	Total						2.000
						Total Quantity in no	2.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
11.00 8	OD167340/2023-2024						
	DP Isolator 40A -Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps .As per Databook DAR Electrical-2.12.1.						
	DP Isolator 40A	1.0000 0					1.000
	Total						1.000
						Total Quantity in no	1.000
11.00 9	OD167341/2023-2024						
	RCCB DP 40A - Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuitbreaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps . As per Databook DAR Electrical 2.14.2.						
	RCCB DP 40A	1.0000 0					1.000
	Total						1.000
						Total Quantity in no	1.000
11.01 0	OD167342/2023-2024						
	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copperconductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.Group B. As per Databook DAR Electrical 1.10.2.						
	Wiring light/fan points with 1.5 sqmm wire	14.000 00					14.000
	Total						14.000
						Total Quantity in point	14.000
11.01 1	OD167343/2023-2024						
	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required. As per Data book Electrical 5.6						
	Earting with copper plate 600mm x600mm	2.0000 0					2.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						2.000
							Total Quantity in set
							2.000
11.01 2	OD167344/2023-2024 Expenses of getting electrical connection from KSEB including documentation fee, service charges, energization charges etc						
	Electrical connection expenses						
		1.0000 0					1.000
	Total						1.000
							Total Quantity in job
							1.000
11.01 3	OD167345/2023-2024 Supply, conveyance, installation and commissioning of light duty Exhaust fan of 300/305mm sweep in metal frame working on 230V A/C 300 sweep including making good the damages etc as required as directed by the departmental officers						
	Exhaust Fan for PH						
		2.0000 0					2.000
	Total						2.000
							Total Quantity in no
							2.000
11.01 4	OD167346/2023-2024 Supply conveyance ,installation testing and commissioning of 36/40 W LED street/Yard light out put greater than 105 lumen/watts 4000-6000K with IP66 protection with LED chip make cree/Lumiled/Nichea with powerfactor greater than 0.95 at full load ,internal surge protection up to 8 kv and alluminium pressure die cast powder coated housing acrylic cover complete with THD less than 10% power factor greater than 0.98 ROHS compliant duly wired up for use on 230v AC supply. Driver compartment should be separately accessible for maintainance (LM 79&80 Certificate from NABL accredited third party lab produced mentioning chip manufacturer)						
	Yard Light						
		4.0000 0					4.000
	Total						4.000
							Total Quantity in no
							4.000
11.01 5	OD167347/2023-2024 Supply , delivery and fixing of 3 T or suitable capacity Electrically and manually working on single girder with overhead travelling trolley and clear lift as per site conditions for lifting the chemicals, Chlorine, pumps etc.. and fitting as required, supplied with one set of crane slings with GI D shackle and clamps etc. complete as per the instruction of the Engineer in charge.&br>						
	.						
		1.0000 0					1.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						1.000
						Total Quantity in no	1.000
12	Electrification works and Supply erection testing and commissioning of pump sets at Poopara						
12.00 1	OD167315/2023-2024						



SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>Supply, erection & commissioning of best quality KWA approved make ISI marked centrifugal pumpset having a 15 LPS discharge against 145 M head at its maximum efficiency working at 230/415V at 50 Hz, 1450 rpm with bronze impeller, stainless steel shaft, CI/SS pump casing with suitable type base plate, including suitable fully Automatic starter with dry run, under voltage, over voltage & over current protection relay, MS panel board with MCCB, ELCB, Capacitor, Indicator lamps, voltmeter, ammeter, change over switch etc suitable for the above motor pump set including necessary copper cable for wiring, earthing, suitable size GM/CI non return & sluice valves, suction & delivery connections etc as per ISI and IE regulations & KSEB standard and erected & trial run conducted for 7days as per the direction of dept. officers and 2 years of free maintenance. If any documentation is required, that should be arranged by the supplier.A). PUMP:- Supply , erection , testing and commissioning of Kirloskar reputed make centrifugal pumpsets with Bronze/SS impeller , SS shaft and CI pump casing with suitable type of base plate with coupling ,coupling guard foundation bolts and nuts etc. complete suitable for coupling the pump and motor above the base&lt;br&gt;plate etc complete including providing suitable concrete foundation including cost of cement , sand and metal etc complete the duty condition is as follows discharge - 15 lps, total head - 145m,Speed -1460 rpm, &lt;br&gt;</p> <p>(B). MOTOR:- supply , erection , testing and commissioning of Kirloskar reputed make horizontal solid shaft foot mounted TEFC squaral cage induction motor suitable for the above pump working 3 phase 50HZ AC supply , working voltage&lt;br&gt;415 V / 3300 V . The motor shall confirm to IE2/IE3 as per IS 12615-2018 including providing suitable concrete foundation including cost of cement, sand and metal etc complete. Flexible coupling shall be used for coupling of pumps and motors&lt;br&gt;</p> <p>(C).STARTER:- Supply ,erection, testing and commissioning of dry type copper wound auto transformer having 40,60,80% taping mounded with powder coated 2 mm thick steel sheath dust and vermin proof floor mounted control cubical panel associated with in/out cable entry boxes for accommodating the following parameters for controlling functions of the the fully automatic auto transformer starter. suitable for above motor - L&T or equivalent reputed co. make MNX 225 contactor unit -1 No L&T or equivalent Co make MNX 95 contactor unit- 2 Nos Timer and supervisory trip relay 1 No OV/UV control relays Minilac or equivalent Co make single phasing preventer AVF digital meter 1 No and selector switch - 1 set ON/Off ,trip & 3 phase indication lamps, Digital or numerical motor protection relay Power Circuit wiring with 25 x 4mm PVC sleeve insulated copper bar and 2.5 sq.mm control wiring &lt;br&gt;</p> <p>(D).PANNEL BOARD :- Supply, erection,testing and commissioning of cubical type floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable rating of 3 pole MCCB as incomer providing suitable size Aluminium bus bar inter connect the above MCCB and fitted with 3 Nos of indicator lamps, 1 No. volt meter with selector switch, 1 No. Ammeter with selector switch etc. complete and provided with duplicate earth point as per CEA regulation and code of practice. the panel shall be fitted on a common base frame on suitable foundation &lt;br&gt;(E).CABLING WORK:- Supply, laying, testing and commissioning of suitable size Aluminium conductor armoured cables for the above pump set from panel board to starter and suitable size cable through PVC pipe, flexible hose and accessories from starter to motor.considering energy conservation &lt;br&gt;</p> <p>(F). EARTHING:- Supply of all material and providing duplicate earthing by 25 x 3mm copper strip on wall /column/floor/buried (Appx. 20 mtrs) in ground and giving double earthing to motor,starter,panel board etc. and connect with existing earthbus. As per IE standards</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>&lt;br&gt; (G).CAPACITOR:- Supply,erection,testing and commissioning suitable rating of of heavy duty APP capacitor for the above motor to get unity&lt;br&gt;power factor . The capacitor shall confirm to IS 2834 &lt;br&gt; (H).VALVE:- Supply of suitable size best quality heavy duty ISI Marked CI double fanged sluice valve and Non return valve with suitable pressure rating.fitting of valves shall include proper RCC support especially for Non return valves. In case of positive suction pump set sluice valve should be in suction as well as delivery sides for easy repair works. Pressure gauge on both suction and delivery side &lt;br&gt;&lt;br&gt; (I).SUCTION AND DELIVERY PIPE CONNECTIONS:- Supply and fitting of suitable size best quality MS pipe of thickness not less than 8 mm for a total length of 8 m (approx). suitable for the above pump set and suitable size foot valve and connecting the suction pipe of size 200mm MS and valve with suitable flanges, nut and bolts IR sheet etc. complete and connecting the delivery side of the pump with 150mm MS pipe of thickness not less than 8 mm for a total length of 8 m (approx) , vales and suitable specials to connect with the pumping main</p>						
	Poopara to Erachilpara						
		2.0000 0					2.000
	Total						2.000
	Total Quantity in no						2.000
12.00 2	OD167316/2023-2024						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>Supply, erection & commissioning of best quality KWA approved make ISI marked centrifugal pumpset having a 3 LPS discharge against 180 M head at its maximum efficiency working at 230/415V at 50 Hz, 1450 rpm with bronze impeller, stainless steel shaft, CI/SS pump casing with suitable type base plate, including suitable fully Automatic starter with dry run, under voltage, over voltage & over current protection relay, MS panel board with MCCB, ELCB, Capacitor, Indicator lamps, voltmeter, ammeter, change over switch etc suitable for the above motor pump set including necessary copper cable for wiring, earthing, suitable size GM/CI non return & sluice valves, suction & delivery connections etc as per ISI and IE regulations & KSEB standard and erected & trial run conducted for 7days as per the direction of dept. officers and 2 years of free maintenance. If any documentation is required, that should be arranged by the supplier. A). PUMP:- Supply , erection , testing and commissioning of Kirloskar reputed make centrifugal pumpsets with Bronze/SS impeller , SS shaft and CI pump casing with suitable type of base plate with coupling ,coupling guard foundation bolts and nuts etc. complete suitable for coupling the pump and motor above the base
plate etc complete including providing suitable concrete foundation including cost of cement , sand and metal etc complete the duty condition is as follows discharge - 3 lps, total head - 180m,Speed -1460 rpm, &</p> <p>(B). MOTOR:- supply , erection , testing and commissioning of Kirloskar reputed make horizontal solid shaft foot mounted TEFC squaral cage induction motor suitable for the above pump working 3 phase 50HZ AC supply , working voltage
415 V / 3300 V . The motor shall confirm to IE2/IE3 as per IS 12615-2018 including providing suitable concrete foundation including cost of cement, sand and metal etc complete. Flexible coupling shall be used for coupling of pumps and motors
</p> <p>(C).STARTER:- Supply ,erection, testing and commissioning of dry type copper wound auto transformer having 40,60,80% taping mounded with powder coated 2 mm thick steel sheath dust and vermin proof floor mounted control cubical panel associated with in/out cable entry boxes for accommodating the following parameters for controlling functions of the the fully automatic auto transformer starter. suitable for above motor - L&T or equivalent reputed co. make MNX 225 contactor unit - 1 No L&T or equivalent Co make MNX 95 contactor unit- 2 Nos Timer and supervisory trip relay 1 No OV/UV control relays Minilac or equivalent Co make single phasing preventer AVF digital meter 1 No and selector switch - 1 set ON/Off ,trip & 3 phase indication lamps, Digital or numerical motor protection relay Power Circuit wiring with 25 x 4mm PVC sleeve insulated copper bar and 2.5 sq.mm control wiring &</p> <p>(D).PANNEL BOARD :- Supply, erection,testing and commissioning of cubical type floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable rating of 3 pole MCCB as incomer providing suitable size Aluminium bus bar inter connect the above MCCB and fitted with 3 Nos of indicator lamps, 1 No. volt meter with selector switch, 1 No. Ammeter with selector switch etc. complete and provided with duplicate earth point as per CEA regulation and code of practice. the panel shall be fitted on a common base frame on suitable foundation &</p> <p>(E).CABLING WORK:- Supply, laying, testing and commissioning of suitable size Aluminium conductor armoured cables for the above pump set from panel board to starter and suitable size cable through PVC pipe, flexible hose and accessories from starter to motor.considering energy conservation &</p> <p>(F). EARTHING:- Supply of all material and providing duplicate earthing by 25 x 3mm copper strip on wall /column/floor/buried (Appx. 20 mtrs) in ground and giving double earthing to motor,starter,panel board etc. and connect with existing earthbus. As per IE standards</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	
 (G).CAPACITOR:- Supply,erection,testing and commissioning suitable rating of of heavy duty APP capacitor for the above motor to get unity
power factor . The capacitor shall confirm to IS 2834
 (H).VALVE:- Supply of suitable size best quality heavy duty ISI Marked CI double fanged sluice valve and Non return valve with suitable pressure rating.fitting of valves shall include proper RCC support especially for Non return valves. In case of positive suction pump set sluice valve should be in suction as well as delivery sides for easy repair works. Pressure gauge on both suction and delivery side

 (I).SUCTION AND DELIVERY PIPE CONNECTIONS:- Supply and fitting of suitable size best quality MS pipe of thickness not less than 8 mm for a total length of 8 m (approx). suitable for the above pump set and suitable size foot valve and connecting the suction pipe of size 200mm MS and valve with suitable flanges, nut and bolts IR sheet etc. complete and connecting the delivery side of the pump with 150mm MS pipe of thickness not less than 8 mm for a total length of 8 m (approx) , vales and suitable specials to connect with the pumping main (15% RATE)						
	Poopara to Magna Peak						
		2.0000 0					2.000
	Total						2.000
	Total Quantity in no						2.000
12.00 3	OD167317/2023-2024 Supply & installation of light fittings on TW round block Supply, conveyance installation testing and commissioning the light fittings of following types made of CRCA with 0.5mm thickness complete with all accessories and lamps etc. directly on wall or ceiling with PVC round block neatly painted to suit the fitting and giving connection with required length of 16/0.20mm 3 core copper conductor flex wire conforming to relevant ISS and giving connections as required. 1x28wT5 fitting with APF electronic ballast suitable for continuous operation with THD less than 10%, power factor greater than 0.98, RoHS compliant, high lumen tube .						
	Led Tube set						
		6.0000 0					6.000
	Total						6.000
	Total Quantity in no						6.000
12.00 4	OD167318/2023-2024 Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required. As per Databook DAR Electrical-5.14.						
	25mm x 5 mm copper strip for earthing						
		1.0000 0	8.000				8.000
	Total						8.000
	Total Quantity in metre						8.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
12.00 5	OD167319/2023-2024 25mm PVC Conduit- Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required. 25 mm .As per Databook DAR Electrical-1.21.2.						
	25 mm pvc conduit						
		1.0000 0	6.000				6.000
	Total						6.000
						Total Quantity in metre	6.000
12.00 6	OD167320/2023-2024 Wiring with 3x 4 sq mm FRLS PVC insulated copper conductor-Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existingsurface / recessed steel/ PVC conduit as required. 3 x 4 sq. mm As per databook DAR Electrical-1.17.21.						
	From Main DB to Light DB						
		1.0000 0	6.000				6.000
	Total						6.000
						Total Quantity in metre	6.000
12.00 7	OD167321/2023-2024 12 Way MCB DB 240V -Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCBIRCCB/Isolator 12 way, Double door. As per Databook DAR Electrical-2.3.3.						
	12 way MCB DB						
		1.0000 0					1.000
	Total						1.000
						Total Quantity in no	1.000
12.00 8	OD167322/2023-2024 SPN 5-32A MCB-Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Single pole and netural .As per Databook DAR Electrical-2.10.2.						
	MCB 5 -32 A						
		2.0000 0					2.000
	Total						2.000
						Total Quantity in no	2.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
12.00 9	OD167323/2023-2024						
	DP Isolator 40A -Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps .As per Databook DAR Electrical-2.12.1.						
	DP Isolator 40A	1.0000 0					1.000
	Total						1.000
						Total Quantity in no	1.000
12.01 0	OD167324/2023-2024						
	RCCB DP 40A - Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuitbreaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps . As per Databook DAR Electrical 2.14.2.						
	RCCB DP 40A	1.0000 0					1.000
	Total						1.000
						Total Quantity in no	1.000
12.01 1	OD167325/2023-2024						
	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copperconductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.Group B. As per Databook DAR Electrical 1.10.2.						
	Wiring light/fan points with 1.5 sqmm wire	14.000 00					14.000
	Total						14.000
						Total Quantity in point	14.000
12.01 2	OD167326/2023-2024						
	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required. As per Data book Electrical 5.6						
	Earthing with copper plate 600mm x600mm	1.0000 0					1.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						1.000
						Total Quantity in set	1.000
12.01 3	OD167327/2023-2024 Expenses of getting electrical connection from KSEB including documentation fee, service charges, energization charges etc Electrical connection expenses	1.0000 0					1.000
	Total						1.000
						Total Quantity in job	1.000
12.01 4	OD167328/2023-2024 Supply, conveyance, installation and commissioning of light duty Exhaust fan of 300/305mm sweep in metal frame working on 230V A/C 300 sweep including making good the damages etc as required as directed by the departmental officers Exhaust Fan for PH	2.0000 0					2.000
	Total						2.000
						Total Quantity in no	2.000
12.01 5	OD167329/2023-2024 Supply conveyance ,installation testing and commissioning of 36/40 W LED street/Yard light out put greater than 105 lumen/watts 4000-6000K with IP66 protection with LED chip make cree/Lumiled/Nichea with powerfactor greater than 0.95 at full load ,internal surge protection up to 8 kv and alluminium pressure die cast powder coated housing acrylic cover complete with THD less than 10% power factor greater than 0.98 ROHS compliant duly wired up for use on 230v AC supply. Driver compartment should be separately accessible for maintainance (LM 79&80 Certificate from NABL accredited third party lab produced mentioning chip manufacturer) Yard Light	4.0000 0					4.000
	Total						4.000
						Total Quantity in no	4.000
12.01 6	OD167330/2023-2024 Supply , delivery and fixing of 3 T or suitable capacity Electrically and manually working on single girder with overhead travelling trolley and clear lift as per site conditions for lifting the chemicals, Chlorine, pumps etc.. and fitting as required, supplied with one set of crane slings with GI D shackle and clamps etc. complete as per the instruction of the Engineer in charge.&br>	1.0000 0					1.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						1.000
						Total Quantity in no	1.000
13	Electrification works and Supply erection testing and commissioning of pump sets at Jamespadi						
13.00 1	OD167348/2023-2024						



SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>Supply, erection & commissioning of best quality KWA approved make ISI marked centrifugal pumpset having a 17 LPS discharge against 140 M head at its maximum efficiency working at 230/415V at 50 Hz, 1450 rpm with bronze impeller, stainless steel shaft, CI/SS pump casing with suitable type base plate, including suitable fully Automatic starter with dry run, under voltage, over voltage & over current protection relay, MS panel board with MCCB, ELCB, Capacitor, Indicator lamps, voltmeter, ammeter, change over switch etc suitable for the above motor pump set including necessary copper cable for wiring, earthing, suitable size GM/CI non return & sluice valves, suction & delivery connections etc as per ISI and IE regulations & KSEB standard and erected & trial run conducted for 7days as per the direction of dept. officers and 2 years of free maintenance. If any documentation is required, that should be arranged by the supplier.</p> <p>A). PUMP:- Supply , erection , testing and commissioning of Kirloskar reputed make centrifugal pumpsets with Bronze/SS impeller , SS shaft and CI pump casing with suitable type of base plate with coupling ,coupling guard foundation bolts and nuts etc. complete suitable for coupling the pump and motor above the base
plate etc complete including providing suitable concrete foundation including cost of cement , sand and metal etc complete the duty condition is as follows discharge - 17 lps, total head - 140m,Speed -1460 rpm, &</p> <p>(B). MOTOR:- supply , erection , testing and commissioning of Kirloskar reputed make horizontal solid shaft foot mounted TEFC squaral cage induction motor suitable for the above pump working 3 phase 50HZ AC supply , working voltage
415 V / 3300 V . The motor shall confirm to IE2/IE3 as per IS 12615-2018 including providing suitable concrete foundation including cost of cement, sand and metal etc complete. Flexible coupling shall be used for coupling of pumps and motors
</p> <p>(C).STARTER:- Supply ,erection, testing and commissioning of dry type copper wound auto transformer having 40,60,80% taping mounded with powder coated 2 mm thick steel sheath dust and vermin proof floor mounted control cubical panel associated with in/out cable entry boxes for accommodating the following parameters for controlling functions of the the fully automatic auto transformer starter. suitable for above motor - L&T or equivalent reputed co. make MNX 225 contactor unit - 1 No L&T or equivalent Co make MNX 95 contactor unit- 2 Nos Timer and supervisory trip relay 1 No OV/UV control relays Minilac or equivalent Co make single phasing preventer AVF digital meter 1 No and selector switch - 1 set ON/Off ,trip & 3 phase indication lamps, Digital or numerical motor protection relay Power Circuit wiring with 25 x 4mm PVC sleeve insulated copper bar and 2.5 sq.mm control wiring &</p> <p>(D).PANNEL BOARD :- Supply, erection,testing and commissioning of cubical type floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable rating of 3 pole MCCB as incomer providing suitable size Aluminium bus bar inter connect the above MCCB and fitted with 3 Nos of indicator lamps, 1 No. volt meter with selector switch, 1 No. Ammeter with selector switch etc. complete and provided with duplicate earth point as per CEA regulation and code of practice. the panel shall be fitted on a common base frame on suitable foundation &</p> <p>(E).CABLING WORK:- Supply, laying, testing and commissioning of suitable size Aluminium conductor armoured cables for the above pump set from panel board to starter and suitable size cable through PVC pipe, flexible hose and accessories from starter to motor.considering energy conservation &</p> <p>(F). EARTHING:- Supply of all material and providing duplicate earthing by 25 x 3mm copper strip on wall /column/floor/buried (Appx. 20 mtrs) in ground and giving double earthing to motor,starter,panel board etc. and connect with existing earthbus. As per IE standards</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	
 (G).CAPACITOR:- Supply,erection,testing and commissioning suitable rating of of heavy duty APP capacitor for the above motor to get unity
power factor . The capacitor shall confirm to IS 2834
 (H).VALVE:- Supply of suitable size best quality heavy duty ISI Marked CI double fanged sluice valve and Non return valve with suitable pressure rating.fitting of valves shall include proper RCC support especially for Non return valves. In case of positive suction pump set sluice valve should be in suction as well as delivery sides for easy repair works. Pressure gauge on both suction and delivery side

 (I).SUCTION AND DELIVERY PIPE CONNECTIONS:- Supply and fitting of suitable size best quality MS pipe of thickness not less than 8 mm for a total length of 8 m (approx). suitable for the above pump set and suitable size foot valve and connecting the suction pipe of size 200mm MS and valve with suitable flanges, nut and bolts IR sheet etc. complete and connecting the delivery side of the pump with 150mm MS pipe of thickness not less than 8 mm for a total length of 8 m (approx) , vales and suitable specials to connect with the pumping main at Jamespadi Pump house						
		2.0000 0					2.000
	Total						2.000
	Total Quantity in no						2.000
13.00 2	OD167349/2023-2024 Supply & installation of light fittings on TW round block Supply, conveyance installation testing and commissioning the light fittings of following types made of CRCA with 0.5mm thickness complete with all accessories and lamps etc. directly on wall or ceiling with PVC round block neatly painted to suit the fitting and giving connection with required length of 16/0.20mm 3 core copper conductor flex wire conforming to relevant ISS and giving connections as required. 1x28wT5 fitting with APF electronic ballast suitable for continuous operation with THD less than 10%, power factor greater than 0.98, RoHS compliant, high lumen tube .						
	Led Tube set						
		6.0000 0					6.000
	Total						6.000
	Total Quantity in no						6.000
13.00 3	OD167350/2023-2024 Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required. As per Databook DAR Electrical-5.14.						
	25mm x 5 mm copper strip for earthing						
		1.0000 0	8.000				8.000
	Total						8.000
	Total Quantity in metre						8.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
13.00 4	OD167351/2023-2024 25mm PVC Conduit- Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required. 25 mm .As per Databook DAR Electrical-1.21.2.						
	25 mm pvc conduit						
		1.0000 0	6.000				6.000
	Total						6.000
						Total Quantity in metre	6.000
13.00 5	OD167352/2023-2024 Wiring with 3x 4 sq mm FRLS PVC insulated copper conductor-Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existingsurface / recessed steel/ PVC conduit as required. 3 x 4 sq. mm As per databook DAR Electrical-1.17.21.						
	From Main DB to Light DB						
		1.0000 0	6.000				6.000
	Total						6.000
						Total Quantity in metre	6.000
13.00 6	OD167353/2023-2024 12 Way MCB DB 240V -Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCBIRCCB/Isolator 12 way, Double door. As per Databook DAR Electrical-2.3.3.						
	12 way MCB DB						
		1.0000 0					1.000
	Total						1.000
						Total Quantity in no	1.000
13.00 7	OD167354/2023-2024 SPN 5-32A MCB-Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Single pole and netural .As per Databook DAR Electrical-2.10.2.						
	MCB 5 -32 A						
		2.0000 0					2.000
	Total						2.000
						Total Quantity in no	2.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
13.00 8	OD167355/2023-2024						
	DP Isolator 40A -Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps .As per Databook DAR Electrical-2.12.1.						
	DP Isolator 40A	1.0000 0					1.000
	Total						1.000
						Total Quantity in no	1.000
13.00 9	OD167356/2023-2024						
	RCCB DP 40A - Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuitbreaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps . As per Databook DAR Electrical 2.14.2.						
	RCCB DP 40A	1.0000 0					1.000
	Total						1.000
						Total Quantity in no	1.000
13.01 0	OD167357/2023-2024						
	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. Group B. As per Databook DAR Electrical 1.10.2.						
	Wiring light/fan points with 1.5 sqmm wire	14.000 00					14.000
	Total						14.000
						Total Quantity in point	14.000
13.01 1	OD167358/2023-2024						
	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required. As per Data book Electrical 5.6						
	Earthing with copper plate 600mm x600mm	1.0000 0					1.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						1.000
							Total Quantity in set 1.000
13.01 2	OD167359/2023-2024 Expenses of getting electrical connection from KSEB including documentation fee, service charges, energization charges etc						
	Electrical connection expenses						
		1.0000 0					1.000
	Total						1.000
							Total Quantity in job 1.000
13.01 3	OD167360/2023-2024 Supply, conveyance, installation and commissioning of light duty Exhaust fan of 300/305mm sweep in metal frame working on 230V A/C 300 sweep including making good the damages etc as required as directed by the departmental officers						
	Exhaust Fan for PH						
		2.0000 0					2.000
	Total						2.000
							Total Quantity in no 2.000
13.01 4	OD167361/2023-2024 Supply conveyance ,installation testing and commissioning of 36/40 W LED street/Yard light out put greater than 105 lumen/watts 4000-6000K with IP66 protection with LED chip make cree/Lumiled/Nichea with powerfactor greater than 0.95 at full load ,internal surge protection up to 8 kv and alluminium pressure die cast powder coated housing acrylic cover complete with THD less than 10% power factor greater than 0.98 ROHS compliant duly wired up for use on 230v AC supply. Driver compartment should be separately accessible for maintainance (LM 79&80 Certificate from NABL accredited third party lab produced mentioning chip manufacturer)						
	Yard Light						
		4.0000 0					4.000
	Total						4.000
							Total Quantity in no 4.000
13.01 5	OD167362/2023-2024 Supply , delivery and fixing of 3 T or suitable capacity Electrically and manually working on single girder with overhead travelling trolley and clear lift as per site conditions for lifting the chemicals, Chlorine, pumps etc.. and fitting as required, supplied with one set of crane slings with GI D shackle and clamps etc. complete as per the instruction of the Engineer in charge.&br>						
	.						
		1.0000 0					1.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						1.000
						Total Quantity in no	1.000
14	Supply erection testing and commissioning of pump sets at Poopara for magnapeak						
14.00 1	OD167977/2023-2024						



SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>Supply, erection & commissioning of best quality KWA approved make ISI marked centrifugal pumpset having a 3 LPS discharge against 176 M head at its maximum efficiency working at 230/415V at 50 Hz, 1450 rpm with bronze impeller, stainless steel shaft, CI/SS pump casing with suitable type base plate, including suitable fully Automatic starter with dry run, under voltage, over voltage & over current protection relay, MS panel board with MCCB, ELCB, Capacitor, Indicator lamps, voltmeter, ammeter, change over switch etc suitable for the above motor pump set including necessary copper cable for wiring, earthing, suitable size GM/CI non return & sluice valves, suction & delivery connections etc as per ISI and IE regulations & KSEB standard and erected & trial run conducted for 7days as per the direction of dept. officers and 2 years of free maintenance. If any documentation is required, that should be arranged by the supplier. A). PUMP:- Supply , erection , testing and commissioning of Kirloskar reputed make centrifugal pumpsets with Bronze/SS impeller , SS shaft and CI pump casing with suitable type of base plate with coupling ,coupling guard foundation bolts and nuts etc. complete suitable for coupling the pump and motor above the base&lt;br&gt;plate etc complete including providing suitable concrete foundation including cost of cement , sand and metal etc complete the duty condition is as follows discharge - 3 lps, total head - 176m,Speed -1460 rpm, &lt;br&gt;(B). MOTOR:- supply , erection , testing and commissioning of Kirloskar reputed make horizontal solid shaft foot mounted TEFC squaral cage induction motor suitable for the above pump working 3 phase 50HZ AC supply , working voltage&lt;br&gt;415 V / 3300 V . The motor shall confirm to IE2/IE3 as per IS 12615-2018 including providing suitable concrete foundation including cost of cement, sand and metal etc complete. Flexible coupling shall be used for coupling of pumps and motors&lt;br&gt;(C).STARTER:- Supply ,erection, testing and commissioning of dry type copper wound auto transformer having 40,60,80% taping mounded with powder coated 2 mm thick steel sheath dust and vermin proof floor mounted control cubical panel associated with in/out cable entry boxes for accommodating the following parameters for controlling functions of the the fully automatic auto transformer starter. suitable for above motor - L&amp;T or equivalent reputed</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	<p>co. make MNX 225 contactor unit -1 No L&amp;T or equivalent Co make MNX 95 contactor unit- 2 Nos Timer and supervisory trip relay 1 No OV/UV control relays Minilac or equivalent Co make single phasing preventer AVF digital meter 1 No and selector switch - 1 set ON/Off ,trip &amp; 3 phase indication lamps, Digital or numerical motor protection relay Power Circuit wiring with 25 x 4mm PVC sleeve insulated copper bar and 2.5 sq.mm control wiring &lt;br&gt;(D).PANNEL BOARD :- Supply, erection,testing and commissioning of cubical type floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable rating of 3 pole MCCB as incomer providing suitable size Aluminium bus bar inter connect the above MCCB and fitted with 3 Nos of indicator lamps, 1 No. volt meter with selector switch, 1 No. Ammeter with selector switch etc. complete and provided with duplicate earth point as per CEA regulation and code of practice. the panel shall be fitted on a common base frame on suitable foundation &lt;br&gt;(E).CABLING WORK:- Supply, laying, testing and commissioning of suitable size Aluminium conductor armoured cables for the above pump set from panel board to starter and suitable size cable through PVC pipe, flexible hose and accessories from starter to motor.considering energy conservation &lt;br&gt;(F). EARTHING:- Supply of all material and providing duplicate earthing by 25 x 3mm copper strip on wall /column/floor/buried (Appx. 20 mtrs) in ground and giving double earthing to motor,starter,panel board etc. and connect with existing earthbus. As per IE standards &lt;br&gt;(G).CAPACITOR:- Supply,erection,testing and commissioning suitable rating of of heavy duty APP capacitor for the above motor to get unity&lt;br&gt;power factor . The capacitor shall confirm to IS 2834 &lt;br&gt;(H).VALVE:- Supply of suitable size best quality heavy duty ISI Marked CI double fanged sluice valve and Non return valve with suitable pressure rating.fitting of valves shall include proper RCC support especially for Non return valves. In case of positive suction pump set sluice valve should be in suction as well as delivery sides for easy repair works. Pressure gauge on both suction and delivery side &lt;br&gt;&lt;br&gt;(I).SUCTION AND DELIVERY PIPE CONNECTIONS:- Supply and fitting of suitable size</p>						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	best quality MS pipe of thickness not less than 8 mm for a total length of 8 m (approx). suitable for the above pump set and suitable size foot valve and connecting the suction pipe of size 200mm MS and valve with suitable flanges, nut and bolts IR sheet etc. complete and connecting the delivery side of the pump with 150mm MS pipe of thickness not less than 8 mm for a total length of 8 m (approx) , vales and suitable specials to connect with the pumping main						
	Pumpset	4.0000 0					4.000
	Total						4.000
						Total Quantity in set	4.000
14.00 2	OD168051/2023-2024 Approval from Electrical Inspectorate including preparation of drawings, obtaining approval for the drawings, arranging inspection of the installations and obtaining safety certificate et; after completion of the works. The necessary statutory fees, if any, payable to the Electrical Inspectorate / KSEB will be paid by KWA. (Note : Scheme approval from the Electrical Inspectorate has to be obtained before supplying the equipments. Payment for the supply of materials will be released only on production of scheme approval) including Energization approval from inspectorate and approvals from KSEBL. - Actual rate = 10000.00/L.S For avoiding CPOH 16% = 0.84*10000=8400/L.S						
	Approval from Electrical Inspectorate	1.0000 0					1.000
	Total						1.000
						Total Quantity in L.S	1.000
15	Construction of pipe line bridge						
15.00 1	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared						
	Clearing jungle	1.0000 0	10.000	1.000			10.000
		1.0000 0	15.000	5.000			75.000
	Total						85.000
						Total Quantity in sqm	85.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
15.00 2	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil						
		9.0000 0	1.400	1.400	0.300		5.292
	Total						5.292
						Total Quantity in cum	5.292
15.00 3	2.9.3 Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m.Hard rock (blasting prohibited)						
		9.0000 0	1.400	1.400	0.300		5.292
	Total						5.292
						Total Quantity in cum	5.292
15.00 4	4.1.5 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) Foundation for columns						
		9.0000 0	1.400	1.400	0.250		4.410
	Total						4.410
						Total Quantity in cum	4.410
15.00 5	OD182803/2023-2024 Dowel Bar-Supplying and providing MS dowel bars of size 20mm dia. of 1m long. (0.5m in rock and 0.5m in concrete) including drilling holes of 20mm dia. and filling the gap with cement grout (100kg/hole) etc.						
		48.000 00					48.000
	Total						48.000
						Total Quantity in no	48.000

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
15.00 6	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)						
	RCC						
	Foundation basement	9.0000 0	1.200	1.200	0.350		4.536
	step footing	9.0000 0	1.000	1.000	0.250		2.250
	Total						6.786
							Total Quantity in cum 6.786
15.00 7	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3(1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)						
	Column above foundation	9.0000 0	0.300	0.300	3.500		2.835
	beam below slab	1.0000 0	32.000	0.300	0.500		4.800
	cross beam	9.0000 0	0.600	0.300	0.500		0.810
	top slab	1.0000 0	32.000	1.200	0.150		5.760
	Total						14.205
							Total Quantity in cum 14.205
15.00 8	5.22.1 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelMild steel and Medium Tensile steel bars						
		1.0000 0	6.786+14 .205	100.000			2099.100
	Total						2099.100
							Total Quantity in kg 2099.100
15.00 9	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	foundation	9.0000 0	1.2*4		0.350		15.120
	Total						15.120
						Total Quantity in sqm	15.120
15.01 0	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform						
	beam	16.000 00	3.500	1.200			67.200
	cross beam	9.0000 0	4.000	1.300			46.800
	Total						114.000
						Total Quantity in sqm	114.000
15.01 1	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)						
	column above foundation	9.0000 0	1.200		3.500		37.800
	beam below slab	1.0000 0	32.000	1.000			32.000
	cross beam sides	9.0000 0	1.000	0.600			5.400
	top slab	2.0000 0	32.000	1.200			76.800
	top slab side	1.0000 0	34.400	0.150			5.160
	Total						157.160
						Total Quantity in sqm	157.160
15.01 2	10.26.3 Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approves steel primer.G.I. pipes						
		1.0000 0	128.000			3.6500 00	467.200
	Total						467.200
						Total Quantity in kg	467.200
15.01 3	100.52.S.1						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	Sub Data for providing Earth filled cement bags including cutting of the Earth, filling, conveying and placing in position.						
	Ring bund (30*2*2=120m ³ -1 bag=0.025m ³)						
		1.0000 0	30.000	2.000	2/0.025		4800.000
	Total						4800.000
	Total Quantity in each						4800.000
15.01 4	100.52.S.3						
	Sub Data for Supplying, conveying and covering using best quality polythene sheet on bund to protect bund from seasonal changes.						
	Polythene sheet						
		1.0000 0	30.000	4.000			120.000
	Total						120.000
	Total Quantity in sqm						120.000
15.01 5	100.52.S.5						
	Sub Data for Dismantling the sand / earth filled cement bag from the foundation site of bund, apron on both sides, counter wall and removing the sand/earth from the bag and disposing the damaged cement bags properly as per the direction of the department officers including all cost of labour charges etc complete.						
	Temporary bund						
		1.0000 0	30.000	2.000	2.000		120.000
	Total						120.000
	Total Quantity in cum						120.000
15.01 6	100.7.1						
	Bailing out water with 5HP engine and pump set including conveyance to the site, erecting, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc., complete.						
	Bailing out water with 5HP engine and pump set						
		1.0000 0	10742.00 0				10742.00 0
	Total						10742.00 0
	Total Quantity in Kwh						10742.00 0
15.01 7	13.48.3						
	Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/10 sqm of approved brand and manufacture						
	Painting						

SI No	Specification	No	Length	Width	Depth	Cf	Quantity
	column above foundation	9.0000 0	1.200		3.500		37.800
	beam below slab	1.0000 0	32.000	1.000			32.000
	cross beam	9.0000 0	1.000				9.000
	top slab	2.0000 0	32.000	1.200			76.800
	top slab side	1.0000 0	34.400	0.150			5.160
	Total						160.760
						Total Quantity in sqm	160.760

