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

Sl 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	5407.000				5407.000
	Spare pipe	1	68.000				68.000
	Deduction	-1	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	4109.000				4109.000
	Spare pipe	1	100.000				100.000
	Deduction	-1	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						
	Pooppara-Erachil para	1	6117.000				6117.000
	Erachilpara-Thodimala	1	1317.000				1317.000
	Jamespadi-Puthady Top	1	2286.000				2286.000
	Spare	1	246.000				246.000
	Deduction for MS pipe	-1	80.000				-80.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**9886.000**
						Total Quantity in metre	**9886.000**
1.004	100.98.115						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 100mm Dia.						
	Supply of 100mm DI pipe						
	Pooppara-Magna Peak	1	1105.000				1105.000
	Spare pipe	1	28.000				28.000
	Deduction	-1	48.000				-48.000
	Total						**1085.000**
						Total Quantity in metre	**1085.000**
1.005	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					20.000
	Total						**20.000**
						Total Quantity in no	**20.000**
1.006	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					22.000
	Total						**22.000**
						Total Quantity in no	**22.000**
1.007	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					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
1.008	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					3.000
	Total						**3.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in no	**3.000**
1.009	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					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
1.010	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					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	4109.000	0.800	1.150	0.750000	2835.210
	250 mm DI K9	1	5407.000	0.900	1.200	0.750000	4379.670
	150 mm DI K9	1	9720.000	0.600	1.050	0.750000	4592.700
	100 mm DI K9	1	1105.000	0.600	1.000	0.750000	497.250
	DEDUCTION for MS Pipe 200 mm	-1	72.000	0.800	1.150	0.750000	-49.680
	DEDUCTION for MS Pipe 150mm	-1	80.000	0.600	1.050	0.750000	-37.800
	DEDUCTION for MS Pipe 100mm	-1	48.000	0.600	1.000	0.750000	-21.600
	Deduction for MS Pipe	-1	40.000	0.900	1.200	0.750000	-32.400

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**12163.350**
						Total Quantity in cum	**12163.350**
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.						
	Excavation in ordinary rock 15%						
	200 mm DI K9	1	4109.000	0.800	1.150	0.150000	567.042
	250 mm DI K9	1	5407.000	0.900	1.200	0.150000	875.934
	150 mm DI K9	1	9720.000	0.600	1.050	0.150000	918.540
	100 mm DI K9	1	1105.000	0.600	1.000	0.150000	99.450
	DEDUCTION for MS Pipe 200 mm	-1	72.000	0.800	1.150	0.150000	-9.936
	DEDUCTION for MS Pipe 150mm	-1	80.000	0.600	1.050	0.150000	-7.560
	DEDUCTION for MS Pipe 100mm	-1	48.000	0.600	1.000	0.150000	-4.320
	Deduction for MS Pipe	-1	40.000	0.900	1.200	0.150000	-6.480
	Total						**2432.670**
						Total Quantity in cum	**2432.670**
2.003	100.2.2						
	Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5m in width or 10m2 on plan), including dressing of sides and ramming of bottoms, lift up to 1.5m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50m, in Medium Rock where Blasting is Prohibited.						
	Earth work excavation in medium rock 5%						
	200 mm DI K9	1	4109.000	0.800	1.150	0.050000	189.014
	250 mm DI K9	1	5407.000	0.900	1.200	0.050000	291.978

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	150 mm DI K9	1	9720.000	0.600	1.050	0.050000	306.180
	100 mm DI K9	1	1105.000	0.600	1.000	0.050000	33.150
	DEDUCTION for MS Pipe 200 mm	-1	72.000	0.800	1.150	0.050000	-3.312
	DEDUCTION for MS Pipe 150mm	-1	80.000	0.600	1.050	0.050000	-2.520
	DEDUCTION for MS Pipe 100mm	-1	48.000	0.600	1.000	0.050000	-1.440
	Deduction for MS Pipe	-1	40.000	0.900	1.200	0.050000	-2.160
	Total						**810.890**
						Total Quantity in cum	**810.890**
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	4109.000	0.800	1.150	0.050000	189.014
	250 mm DI K9	1	5407.000	0.900	1.200	0.050000	291.978
	150 mm DI K9	1	9720.000	0.600	1.050	0.050000	306.180
	100 mm DI K9	1	1105.000	0.600	1.000	0.050000	33.150
	DEDUCTION for MS Pipe 200 mm	-1	72.000	0.800	1.150	0.050000	-3.312
	DEDUCTION for MS Pipe 150mm	-1	80.000	0.600	1.050	0.050000	-2.520
	DEDUCTION for MS Pipe 100mm	-1	48.000	0.600	1.000	0.050000	-1.440
	Deduction for MS Pipe	-1	40.000	0.900	1.200	0.050000	-2.160
	Total						**810.890**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in cum	**810.890**
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	20341.000				20341.000
	Total						**20341.000**
						Total Quantity in metre	**20341.000**
2.006	100.59.1						
	Cutting the bituminous / concrete roads with cutting machine for a minimum depth of 200mm along the sides of proposed alignment of the pipe to be laid without causing any damage to other utilities, including the charges for hire and conveyance of tools and plant, cost of consumables and charges for lighting, watching, ribbon fencing, caution boards, traffic diversion, and as per the direction of departmental officers etc. complete, before carrying out the demolition of bituminous / concrete road by mechanical means and carrying out the excavation.						
	Cutting the bituminous roads						
		1	1850.000				1850.000
	Total						**1850.000**
						Total Quantity in metre	**1850.000**
2.007	15.59						
	Dismantling of flexible pavement (bituminous courses) by mechanical means and disposal of dismantled material up to a lead of 1 kilo metre, as per direction of Engineer-in-charge.						
	Dismantling of flexible pavement						
		1	1850.000	0.600	0.200		222.000
	Total						**222.000**
						Total Quantity in cum	**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	850.000	0.600	0.150		76.500
	Total						**76.500**
						Total Quantity in cum	**76.500**
2.009	100.14.1						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 100mm diameter Ductile Iron Class K-9 Pipes.						
	100 mm DI						
	Pooppara-Magna Peak	1	1105.000				1105.000
	Total						**1105.000**
						Total Quantity in metre	**1105.000**
2.010	18.30.2						
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:100 mm diameter pipe						
	100 mm DI						
		10					10.000
	Total						**10.000**
						Total Quantity in no	**10.000**
2.011	18.70.1						
	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:100 mm dia pipes						
	100 mm dia						
		210					210.000
	Total						**210.000**
						Total Quantity in joint	**210.000**
2.012	OD126000/2022-2023						
	Labour for cutting DI pipe with steel saw 100 mm diameter of DI Pipe						
	100 mm DI K9						
		10					10.000
	Total						**10.000**
						Total Quantity in Each Cut	**10.000**
2.013	100.35.1						
	Testing 100mm DI/CI pipeline with potable water to the required test pressure 100 mm dia						
	100 mm						
		1	1105.000				1105.000
	Total						**1105.000**
						Total Quantity in metre	**1105.000**
2.014	100.14.2						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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						
	Poopara booster - Erachilpara	1	6117.000				6117.000
	Erachilpara booster - Thodimala GLSR	1	1317.000				1317.000
	Jamespadi booster - Puthadi top	1	2286.000				2286.000
	Total						**9720.000**
						Total Quantity in metre	**9720.000**
2.015	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					15.000
	Total						**15.000**
						Total Quantity in no	**15.000**
2.016	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						
		1788					1788.000
	Total						**1788.000**
						Total Quantity in joint	**1788.000**
2.017	OD126003/2022-2023						
	Labour for cutting Ductile Iron pipe with steel saw.150 mm diameter Ductile Iron. pipe						
	200 mm DI						
		40					40.000
	Total						**40.000**
						Total Quantity in no	**40.000**
2.018	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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
		1	9720.000				9720.000
	Total						**9720.000**
						Total Quantity in metre	**9720.000**
2.019	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	4109.000				4109.000
	Total						**4109.000**
						Total Quantity in metre	**4109.000**
2.020	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					15.000
	Total						**15.000**
						Total Quantity in no	**15.000**
2.021	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					760.000
	Total						**760.000**
						Total Quantity in joint	**760.000**
2.022	OD126002/2022-2023						
	Labour for cutting DI pipe with steel saw 200 mm diameter of DI Pipe						
	200 mm DI						
		26					26.000
	Total						**26.000**
						Total Quantity in Each Cut	**26.000**
2.023	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	4109.000				4109.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**4109.000**
						Total Quantity in metre	**4109.000**
2.024	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	5407.000				5407.000
	Total						**5407.000**
						Total Quantity in metre	**5407.000**
2.025	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						
		7					7.000
	Total						**7.000**
						Total Quantity in no	**7.000**
2.026	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					990.000
	Total						**990.000**
						Total Quantity in joint	**990.000**
2.027	OD142449/2022-2023						
	Labour for cutting DI pipe with steel saw 250 mm diameter DI Pipe						
	cutting						
		20					20.000
	Total						**20.000**
						Total Quantity in Each Cut	**20.000**
2.028	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	5407.000				5407.000
	Total						**5407.000**
						Total Quantity in metre	**5407.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
2.029	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	48.000				48.000
	Total						**48.000**
						Total Quantity in metre	**48.000**
2.030	100.37.5.2						
	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					20.000
	Total						**20.000**
						Total Quantity in no	**20.000**
2.031	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					24.000
	Total						**24.000**
						Total Quantity in no	**24.000**
2.032	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					24.000
	Total						**24.000**
						Total Quantity in no	**24.000**
2.033	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					48.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**48.000**
						Total Quantity in no	**48.000**
2.034	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.						
	MS pipe 150mm						
		1	80.000				80.000
	Total						**80.000**
						Total Quantity in metre	**80.000**
2.035	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					30.000
	Total						**30.000**
						Total Quantity in no	**30.000**
2.036	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					40.000
	Total						**40.000**
						Total Quantity in no	**40.000**
2.037	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					40.000
	Total						**40.000**
						Total Quantity in no	**40.000**
2.038	100.37.6.5						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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					80.000
	Total						**80.000**
						Total Quantity in no	**80.000**
2.039	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	72.000				72.000
	Total						**72.000**
						Total Quantity in metre	**72.000**
2.040	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					30.000
	Total						**30.000**
						Total Quantity in no	**30.000**
2.041	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					36.000
	Total						**36.000**
						Total Quantity in no	**36.000**
2.042	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					36.000
	Total						**36.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in no	**36.000**
2.043	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					72.000
	Total						**72.000**
						Total Quantity in no	**72.000**
2.044	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	40.000				40.000
	Total						**40.000**
						Total Quantity in metre	**40.000**
2.045	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					14.000
	Total						**14.000**
						Total Quantity in no	**14.000**
2.046	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					18.000
	Total						**18.000**
						Total Quantity in no	**18.000**
2.047	100.37.8.4						
	Welding 250mm (I.D.) M.S. pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	welding						
		18					18.000
	Total						**18.000**
						Total Quantity in no	**18.000**
2.048	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					36.000
	Total						**36.000**
						Total Quantity in no	**36.000**
2.049	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				0.320000	1.280
	200*45 bend	17				0.260000	4.420
	200*22.5 bend	21				0.230000	4.830
	200*11.25 bend	32				0.210000	6.720
	250*90 bend	4				0.480000	1.920
	250*45 bend	4				0.360000	1.440
	250*22.5 bend	4				0.320000	1.280
	250*11.25 bend	4				0.300000	1.200
	150*90 bend	6				0.200000	1.200
	150*45 bend	14				0.160000	2.240
	150*22.5 bend	20				0.150000	3.000
	150*11.25 bend	35				0.140000	4.900
	100*90 bend	2				0.110000	0.220

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	100*45 bend	3				0.100000	0.300
	100*22.5 bend	4				0.090000	0.360
	100*11.25 bend	6				0.090000	0.540
	200*150 TEE	20				0.360000	7.200
	200*100 TEE	12				0.310000	3.720
	150*100 TEE	10				0.220000	2.200
	250*TP	2				0.320000	0.640
	200mm TP	10				0.200000	2.000
	150mm TP	10				0.140000	1.400
	100mm TP	2				0.090000	0.180
	Total						**53.190**
						Total Quantity in quintal	**53.190**
2.050	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				0.130000	0.260
	150 mm M J Collar	20				0.200000	4.000
	200 mm M J Collar	9				0.270000	2.430
	250 mm MJ collor	8				0.360000	2.880
	Total						**9.570**
						Total Quantity in quintal	**9.570**
2.051	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.						
	150 mm						
		3					3.000
	Total						**3.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in no	**3.000**
2.052	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					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
2.053	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					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
2.054	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					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
2.055	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					22.000
	Total						**22.000**
						Total Quantity in no	**22.000**
2.056	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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	40mm	20					20.000
	Total						**20.000**
						Total Quantity in no	**20.000**
2.057	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	1.600	1.600	1.500		26.880
	Total						**26.880**
						Total Quantity in cum	**26.880**
2.058	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	1.600	1.600	0.100		1.792
	Anchor Block	200	0.600	0.600	0.600		43.200
	Total						**44.992**
						Total Quantity in cum	**44.992**
2.059	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	0.500	1.500	0.250		3.938
	base slab	7	1.500	1.500	0.150		2.363
	side wall long	14	1.500	0.250	1.000		5.250
	side wall Short	14	1.000	0.250	1.000		3.500
	Total						**15.051**
						Total Quantity in cum	**15.051**
2.060	5.22.4						
	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelHot rolled deformed bars						
	Steel reinforcement						
	@60 kg/cum for valve chamber	15.051				60.000 000	903.060

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	@20 kg/cum for AB	72				20.000 000	1440.000
	Total						**2343.060**
						Total Quantity in kilogram	**2343.060**
2.061	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						
	side wall(out side)	7	1.5*4		1.000		42.000
	side wall(in side)	7	1*4		1.000		28.000
	anchor block	200	0.6*4		0.600		288.000
	Total						**358.000**
						Total Quantity in sqm	**358.000**
2.062	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	7	1.5*4	0.250			10.500
	cover slab-side wall	7	1.500	1.500			15.750
	Total						**26.250**
						Total Quantity in sqm	**26.250**
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						
	Clearing jungle						
		1	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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	for ring beam	1	3.14*4.855		0.450	0.250000	1.715
	cutting and levelling	1	5.500	5.500	0.750		22.688
	Total						**24.403**
						Total Quantity in cum	**24.403**
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	3.14*4.855*4.855		0.200	0.250000	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	3.14*4.855	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						
	Outer area	1	3.14*5.305		0.450		7.496
	Inner area	1	3.14*4.405		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 levelThermo - Mechanically Treated bars of grade Fe-500D or more						
	@120 kg/cum						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
		3.087				120.000000	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						
		3.14	2.202	2.202	0.300		4.568
	Total						**4.568**
						Total Quantity in cum	**4.568**
3.008	OD104336/2022-2023						
	Supply of Sand including loading, unloading, transportation and other incidental charges as per the direction of departmental officers.1						
	Sand filling						
		3.14	2.202	2.202	0.150		2.284
	Total						**2.284**
						Total Quantity in cum	**2.284**
3.009	OD104335/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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 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 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 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 TANK DIMENSIONS: The dimensions of the Tank shall be of 4.855m in diameter and 2.9m in height DESIGN LIFE: The tanks shall have a design life of 40 years. 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.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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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&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.						
	Steel Tank						
	Magna peak	1	50000.000				50000.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**50000.000**
						Total Quantity in Litre	**50000.000**
3.010	OD104686/2022-2023						
	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					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	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	11.000	11.000			121.000
	steel tank for PCC	1	4.360	4.360		3.140000	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	10.000	7.000	0.300		21.000
	Total						**21.000**
						Total Quantity in cum	**21.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
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	4.360	4.360	0.200	3.140000	11.938
	Total						**11.938**
						Total Quantity in cum	**11.938**
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	8.739	0.450	0.450	3.140000	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	9.189		0.450	3.140000	12.984
	Inside	1	8.289		0.450	3.140000	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	5.557				120.000000	666.840
	Total						**666.840**
						Total Quantity in kilogram	**666.840**
4.008	2.25						

Sl 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	4.140	4.140	0.300	3.140000	16.146
	Total						**16.146**
						Total Quantity in cum	**16.146**
4.009	OD104428/2022-2023						
	Supply of Sand including loading, unloading, transportation and other incidental charges as per the direction of departmental officers.1						
	sand filling						
		1	4.140	4.140	0.150	3.140000	8.073
	Total						**8.073**
						Total Quantity in cum	**8.073**
4.010	OD104440/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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 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 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 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. 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.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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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&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.						
	GLSR at Thodimala						
	Dia- 8.739m, ht- 4.3m	260000					260000.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**260000.000**
						Total Quantity in Litre	**260000.000**
4.011	OD105221/2022-2023						
	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					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	12.500	12.500			156.250
	For site leveling	1	3.14*12.102*12.102			0.250000	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	5.826	5.826	0.150	3.140000	15.987
	Total						**15.987**
						Total Quantity in cum	**15.987**
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						
		1	11.652	0.450	0.450	3.140000	7.409

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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	3.14	12.102		0.450		17.100
	Inside	3.14	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 levelThermo - Mechanically Treated bars of grade Fe-500D or more						
	Steel Reinforcement						
	@120 kg/cum	1	7.409			120.000000	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						
		3.14	5.601	5.601	0.300		29.552
	Total						**29.552**
						Total Quantity in cum	**29.552**
5.007	OD104269/2022-2023						
	Supply of Sand including loading, unloading, transportation and other incidental charges as per the direction of departmental officers.1						
	Sand Filling						
		3.14	5.601	5.601	0.150		14.776
	Total						**14.776**
						Total Quantity in cum	**14.776**
5.008	OD104268/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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 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 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 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 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. 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.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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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 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&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.						
	Steel Tank						
		290000					290000.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**290000.000**
						Total Quantity in Litre	**290000.000**
5.009	OD105255/2022-2023						
	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					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	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	14.500	8.500	0.400	0.250000	12.325
	Compound wall	1	49.000	0.300	0.300	0.250000	1.103
	Total						**13.428**
						Total Quantity in cum	**13.428**
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						
	for levelling sump	1	9.100	13.100	0.300	0.750000	26.822

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Compound wall	1	49.000	0.300	0.100	0.750000	1.103
	Total						**27.925**
						Total Quantity in cum	**27.925**
6.004	OD74847/2022-2023						
	: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					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	15.100	9.100	0.150		20.612
	Footing PCC	8	1.300	1.300	0.100		1.352
	compound wall	1	49.000	0.300	0.100		1.470
	Deduction for Footing	-8	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						
	Base slab	1	14.500	8.500	0.250		30.813
	Foundation	8	1.200	1.200	1.200		13.824
	compound wall plinth beam	1	49.000	0.300	0.300		4.410
	Total						**49.047**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in cum	**49.047**
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	45.000	0.250	4.000		45.000
	Haunch	1	44.000	0.700	0.400	0.500000	6.160
	Cover slab of sump(PH base)	1	6.300	3.300	0.080		1.663
	Cover slab of sump	1	15.100	9.100	0.120		16.489
	Beam under roof slab- Long beam	2	14.500	0.300	0.330		2.871
	Beam under roof slab- Short beam	4	8.000	0.300	0.330		3.168
	Column inside sump	8	3.670	0.300	0.300		2.642
	Cover slab of PH	1	6.700	3.700	0.120		2.975
	Shade for pump house	1	21.600	0.600	0.075		0.972
	Lintel	1	15.700	0.200	0.100		0.314
	PH Beam under roof slab	7	2.700	0.300	0.200		1.134
	Column PH	6	0.300	0.300	2.800		1.512
	Deduction- Manhole cover	-8	0.455	0.610	0.200		-0.444
	Deduction- sump beam	-8	0.300	0.300	0.330		-0.238
	Total						**84.218**
						Total Quantity in cum	**84.218**
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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Side wall	1	45.000	0.250	3.750		42.188
	Haunch	1	44.000	0.700	0.400	0.500000	6.160
	Cover slab of sump(PH base)	1	6.300	3.300	0.080		1.663
	Cover slab of sump	1	15.100	9.100	0.120		16.489
	Beam under roof slab- Long beam	2	14.500	0.300	0.330		2.871
	Beam under roof slab- Short beam	4	8.000	0.300	0.330		3.168
	Column inside sump	8	3.420	0.300	0.300		2.462
	Cover slab of PH	1	6.700	3.700	0.120		2.975
	Shade for pump house	1	21.600	0.600	0.075		0.972
	Lintel	1	15.700	0.200	0.100		0.314
	PH Beam under roof slab	7	2.700	0.300	0.200		1.134
	Column PH	6	0.300	0.300	2.800		1.512
	Deduction-Manhole cover	-8	0.455	0.610	0.200		-0.444
	Deduction-sump beam	-8	0.300	0.300	0.330		-0.238
	Base slab	1	14.500	8.500	0.250		30.813
	Foundation	8	1.200	1.200	1.200		13.824
	Total						**125.863**
						Total Quantity in cum	**125.863**
6.009	22.22						
	Providing and mixing integral crystalline admixture for waterproofing treatment to RCC structures like basement raft, retaining walls, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc.. at the time of transporting of concrete into the drum of the ready-mix truck , using integral crystalline admixture @0.80% (minimum) to the weight of cement content per cubic meter of concrete) or higher as recommended by the manufacturer's specification in reinforced cement concrete at site of work. 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. The crystalline admixture 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.						
	admixture						
	@0.8% of cement	95.325	330.000			0.008000	251.658

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**251.658**
						Total Quantity in kg	**251.658**
6.010	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	46.000		0.250		11.500
	Column Foundation	8	4.800		1.200		46.080
	Total						**57.580**
						Total Quantity in sqm	**57.580**
6.011	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.						
	Form work Sump- wall, pump house,Compound wall						
	Sump- wall outside	1	46.000		3.750		172.500
	Sump- wall inside	1	44.000		3.750		165.000
	Lintel	2	15.700		0.100		3.140
	Compound wall	2	49.000		0.300		29.400
	Total						**370.040**
						Total Quantity in sqm	**370.040**
6.012	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	15.100	9.100			137.410
	deduction for wall	-1	45.000	0.250			-11.250
	Side of cover slab	1	48.400		0.120		5.808
	Cover slab- PH	1	6.700	3.700			24.790
	Side of cover slab- PH	1	20.800	0.120			2.496
	deduction for wall PH	-1	18.400	0.200			-3.680
	Long beam Sump	2	14.000	1.300			36.400
	Short beam Sump	4	7.400	1.200			35.520

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Column sump	8	1.200		3.250		31.200
	Column PH	6	1.200		2.700		19.440
	Beam PH	6	2.700		0.600		9.720
	Beam PH	1	2.700		0.800		2.160
	sunshade	1	21.600		0.600		12.960
	sunshade side	1	21.600		0.075		1.620
	haunch	1	44.000		0.800		35.200
	Total						**339.794**
						Total Quantity in sqm	**339.794**
6.013	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						
		133.265				120.000000	15991.800
	Total						**15991.800**
						Total Quantity in kilogram	**15991.800**
6.014	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	18.400	0.200	2.700		9.936
	Deduction- RS	-1	2.400	0.200	2.700		-1.296
	Deduction-Window	-5	1.500	0.200	1.500		-2.250
	Deduction for column width	-6	2.700	0.300	0.300		-1.458
	Total						**4.932**
						Total Quantity in cum	**4.932**
6.015	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	49.000	0.200	1.500		14.700

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Parapet	1	20.000	0.150	0.450		1.350
	Total						**16.050**
						Total Quantity in cum	**16.050**
6.016	13.7.1						
	12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)						
	Deduction Plastering						
	Rolling shutter	-2	2.400		2.700		-12.960
	Window	-10	1.500		1.500		-22.500
	Manhole cover	-8	0.455	0.610			-2.220
	Total						**-37.680**
	Plastering						
		1					1.000
	Base slab for sump	1	46.000		0.250		11.500
	Sump- wall outside	1	46.000		3.750		172.500
	Sump- wall inside	1	44.000		3.350		147.400
	Cover slab of sump top	1	15.100	9.100			137.410
	deduction for wall	-1	45.000	0.250			-11.250
	Side of cover slab	1	48.400		0.120		5.808
	Cover slab- PH top	1	6.700	3.700			24.790
	Side of cover slab- PH	1	20.800	0.120			2.496
	deduction for wall PH	-1	18.400	0.200			-3.680
	Column sump	8	1.200		3.250		31.200
	Column PH	6	1.200		2.700		19.440
	sunshade top	1	21.600		0.600		12.960
	sunshade side	1	21.600		0.075		1.620
	wall PH	2	18.400	0.200	2.700		19.872
	Compound wall	2	49.000	0.200	1.500		29.400
	Parapet	2	20.000	0.150	0.450		2.700
	haunch	1	44.000		0.800		35.200
	Total						**640.366**
						Total Quantity in sqm	**602.686**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
6.017	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	15.100	9.100			137.410
	deduction for wall	-1	45.000	0.250			-11.250
	Cover slab- PH bottom	1	6.700	3.700			24.790
	deduction for wall PH	-1	18.400	0.200			-3.680
	Long beam Sump	2	14.000	1.300			36.400
	Short beam Sump	4	7.400	1.200			35.520
	Beam PH	6	2.700		0.600		9.720
	Beam PH	1	2.700		0.800		2.160
	sunshade bottom	1	21.600		0.600		12.960
	Total						**244.030**
						Total Quantity in sqm	**244.030**
6.018	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	2.400		2.700		-12.960
	Window	-10	1.500		1.500		-22.500
	Manhole cover	-8	0.455	0.610			-2.220
	Base slab for sump	1	46.000		0.250		11.500
	Sump- wall outside	1	46.000		3.750		172.500
	deduction for wall	-1	45.000	0.250			-11.250
	Side of cover slab	1	48.400		0.120		5.808
	Side of cover slab- PH	1	20.800	0.120			2.496
	deduction for wall PH	-1	18.400	0.200			-3.680
	Column PH	6	1.200		2.700		19.440
	sunshade top	1	21.600		0.600		12.960
	sunshade side	1	21.600		0.075		1.620

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	wall PH	2	18.400	0.200	2.700		19.872
	Compound wall	2	49.000	0.200	1.500		29.400
	Parapet	2	20.000	0.150	0.450		2.700
	deduction for wall	-1	45.000	0.250			-11.250
	Cover slab- PH bottom	1	6.700	3.700			24.790
	deduction for wall PH	-1	18.400	0.200			-3.680
	Beam PH	6	2.700		0.600		9.720
	Beam PH	1	2.700		0.800		2.160
	sunshade bottom	1	21.600		0.600		12.960
	Total						**260.386**
						Total Quantity in sqm	**260.386**
6.019	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	44.000		3.350		147.400
	Long beam Sump	2	14.000	1.300			36.400
	Short beam Sump	4	7.400	1.200			35.520
	Column sump	8	1.200		3.250		31.200
	haunch	1	44.000		0.800		35.200
	Total						**285.720**
						Total Quantity in sqm	**285.720**
6.020	13.71						
	Lettering with black Japan pint of approved brand and manufacture						
	Lettering						
		100					100.000
	Total						**100.000**
						Total Quantity in per Letter per cm height	**100.000**
6.021	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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	For Ladder,gate and hand rail						
		950					950.000
	Total						**950.000**
						Total Quantity in kg	**950.000**
6.022	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						
		8					8.000
	Total						**8.000**
						Total Quantity in no	**8.000**
6.023	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						
	M.S Grill						
		150					150.000
	Total						**150.000**
						Total Quantity in kg	**150.000**
6.024	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	2.400		2.700		6.480
	Total						**6.480**
						Total Quantity in sqm	**6.480**
6.025	OD74851/2022-2023						
	:Providing suitable size ventilating arrangements by using 100 mm CI vent cowls as per the direction of departmental officers						
	Vent cowl						
		2					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
6.026	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, Aluminnium 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 portionPowder coated aluminium (minimum thickness of powder coating 50 micron)						
	Aluminium works						
		1	12.000				12.000
	Total						**12.000**
						Total Quantity in kg	**12.000**
6.027	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	12.000				12.000
	Total						**12.000**
						Total Quantity in kg	**12.000**
6.028	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	0.750		1.500		6.750
	Total						**6.750**
						Total Quantity in sqm	**6.750**
6.029	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						
		10					10.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**10.000**
						Total Quantity in no	**10.000**
6.030	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				0.470000	0.940
	100mm wall casting pipes for outlet,scour etc	2				0.200000	0.400
	Total						**1.340**
						Total Quantity in quintal	**1.340**
6.031	100.36.1						
	Filling water with 5000 litre tankers fited 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 appliences and cost of water etc. complete.						
	Filling water						
		400					400.000
	Total						**400.000**
						Total Quantity in Kilo litre	**400.000**
6.032	OD247171/2022-2023						
	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					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						
	Tank & Pump house	1	10.000	8.000			80.000
	Total						**80.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						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	8.000	10.000	0.400		32.000
	For compound wall	1	40.000	0.300	0.300		3.600
	For water tank	1	7.100	5.100	0.150		5.432
	Footing for pcc	1	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	6.000	4.000	0.500		12.000
	For Footing	1	1.300	1.300	0.950		1.606
	Total						**13.606**
						Total Quantity in cum	**13.606**
7.004	OD75656/2022-2023						
	: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					80.000
	Total						**80.000**
						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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	For water tank	1	7.100	5.100	0.150		5.432
	Footing for pcc	1	1.300	1.300	0.100		0.169
	Compound wall	1	40.000	0.300	0.100		1.200
	Deduction for footing	-1	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	6.700	4.700	0.700		22.043
	compound wall	1	40.000	0.300	0.400		4.800
	deduction for column	-1	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						
	Water tank Base slab	1	6.500	4.500	0.200		5.850
	Water tank Footing	1	1.200	1.200	1.200		1.728
	compound wall	1	40.000	0.200	0.200		1.600
	Total						**9.178**
						Total Quantity in cum	**9.178**
7.008	5.33.2						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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	21.000	0.250	2.500		13.125
	Haunch	1	20.000	0.700	0.400	0.500000	2.800
	Column tank	1	0.300	0.300	2.400		0.216
	Cover slab of sump	1	6.900	4.900	0.200		6.762
	long Beam tank	1	6.000	0.250	0.100		0.150
	short Beam tank	1	4.000	0.250	0.100		0.100
	Cover slab of PH	1	4.900	3.780	0.120		2.223
	Lintel	1	14.960	0.200	0.100		0.299
	Beam PH	1	2.980	0.250	0.130		0.097
	Deduction-Manhole cover	-4	0.455	0.610	0.200		-0.222
	Total						**25.550**
						Total Quantity in cum	**25.550**
7.009	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).						
	Richer mixes						
	tank Side wall	1	21.000	0.250	2.500		13.125
	Haunch	1	20.000	0.700	0.400	0.500000	2.800
	Column tank	1	0.300	0.300	2.400		0.216
	Cover slab of sump	1	6.900	4.900	0.200		6.762
	long Beam tank	1	6.000	0.250	0.100		0.150
	short Beam tank	1	4.000	0.250	0.100		0.100
	Cover slab of PH	1	4.900	3.780	0.120		2.223
	Lintel	1	14.960	0.200	0.100		0.299
	Beam PH	1	2.980	0.250	0.130		0.097

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Deduction-Manhole cover	-4	0.455	0.610	0.200		-0.222
	Total						**25.550**
						Total Quantity in cum	**25.550**
7.010	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, reservior, 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 engineerin-charge. The product performance shall carry guarantee for 10 years against any leakage.For vertical surface two coats @0.70 kg per sqm						
	Integral crystalline slurry						
	tank Side wall	1	21.000	0.250	2.500		13.125
	Haunch	1	20.000	0.700	0.400	0.500000	2.800
	Column tank	1	0.300	0.300	2.400		0.216
	Total						**16.141**
						Total Quantity in sqm	**16.141**
7.011	22.23.2						
	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, reservior, 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 engineerin-charge. The product performance shall carry guarantee for 10 years against any leakage.For horizontal surface one coat @1.10 kg per sqm.						
	Integral crystalline slurry						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Water tank Base slab	1	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	4.500	0.200	3.000		5.400
	Short wall	2	3.380	0.200	3.000		4.056
	Deduction-Rolling shutter	-1	2.400		2.700		-6.480
	Deduction-Window	-3	1.500	0.200	1.500		-1.350
	Deduction of lintel	-1	14.960	0.200	0.100		-0.299
	Total						**1.327**
						Total Quantity in cum	**1.327**
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	40.000	0.150	1.500		9.000
	Parapet wall	1	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	21.000		0.200		4.200
	column Foundation	1	4.800		1.200		5.760
	Compound wall	2	40.000		0.200		16.000
	Total						**25.960**
						Total Quantity in sqm	**25.960**
7.015	5.9.2						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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	22.000		2.500		55.000
	Tank-side wall inside	1	20.000		2.500		50.000
	column	1	1.200		2.200		2.640
	Total						**107.640**
						Total Quantity in sqm	**107.640**
7.016	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						
	Tank cover slab	1	7.100	5.100			36.210
	Tank cover slab sides	1	24.400		0.200		4.880
	beams	1	10.000		0.500		5.000
	Cover slab- PH	1	4.900	3.780			18.522
	Side of cover slab -PH	1	17.360		0.120		2.083
	PH-Beam	2	2.850	0.560			3.192
	Sun shade	3	1.800	0.600			3.240
	sunshade side	3	3.000		0.075		0.675
	lintel	2	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						
		34.72				120.000000	4166.400
	Total						**4166.400**
						Total Quantity in kilogram	**4166.400**
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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Side wall outer and base slab	1	22.000		2.700		59.400
	Side wall inside	1	20.000		2.500		50.000
	haunch	1	20.000		0.800		16.000
	column	1	1.200		2.400		2.880
	roof slab	2	7.100	5.100			72.420
	roof slab side	1	24.400		0.200		4.880
	PH wall outer	1	15.760		3.000		47.280
	PH wall inner	1	14.160		3.000		42.480
	PH slab	2	3.780	4.900			37.044
	PH slab side	2	17.360		0.120		4.166
	parapet	2	16.960		0.450		15.264
	parapet top	1	16.960		0.150		2.544
	manhole side	4	2.130		0.200		1.704
	Deduction windows	-3	1.500		1.500		-6.750
	Deduction RS	-1	2.400		2.700		-6.480
	Compound wall	2	40.000		3.150		252.000
	Total						**594.832**
						Total Quantity in sqm	**594.832**
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	22.000		2.700		59.400
	roof slab	2	7.100	5.100			72.420
	roof slab side	1	24.400		0.200		4.880
	PH wall outer	1	15.760		3.000		47.280
	PH wall inner	1	14.160		3.000		42.480
	PH slab	2	3.780	4.900			37.044
	PH slab side	2	17.360		0.120		4.166
	parapet	2	16.960		0.450		15.264
	manhole side	4	2.130		0.200		1.704
	Deduction for windows	-3	1.500		1.500		-6.750
	Deduction for RS	-1	2.400		2.700		-6.480
	Compound wall	1	40.000		3.150		126.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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					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				600.000000	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					4.000
	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				70.000000	70.000
	Total						**70.000**
						Total Quantity in kg	**70.000**
7.024	10.6.1						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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	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, Aluminnium 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 portionPowder coated aluminium (minimum thickness of powder coating 50 micron)						
	Aluminium works						
		1	12.000				12.000
	Total						**12.000**
						Total Quantity in kg	**12.000**
7.026	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	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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Glass for shutter						
		3	1.500	1.500		1.250000	8.438
	Total						**8.438**
						Total Quantity in sqm	**8.438**
7.028	OD149113/2022-2023						
	Supply conveyance ,installation testing and commissioning of36/40 W LED street/Yard light out put greater than105 lumen/watts 4000-6000K with IP66 protection with LED chip make cree/Lumilled/Nichea with powerfactor greater than 0.95 at full load ,internal surge protection up to 8 kv and alluminium preasure die cast powder coated housing acryliccover 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 maintanance(LM 79&80 Certificate from NABL acredited third party lab produced mentioning chip manufacturer)						
	LED						
		4					4.000
	Total						**4.000**
						Total Quantity in no	**4.000**
7.029	OD149115/2022-2023						
	Taking new electrical connection from KSEBL						
	.						
		1					1.000
	Total						**1.000**
						Total Quantity in 1 nos	**1.000**
7.030	OD149117/2022-2023						
	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					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				0.470000	0.940

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	100mm wall casting pipes for outlet,scour etc	2				0.200000	0.400
	Total						**1.340**
						Total Quantity in quintal	**1.340**
7.032	100.36.1						
	Filling water with 5000 litre tankers fited 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 appliences and cost of water etc. complete.						
	Filling water						
		40					40.000
	Total						**40.000**
						Total Quantity in Kilo litre	**40.000**
7.033	OD247172/2022-2023						
	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					1.000
	Total						**1.000**
						Total Quantity in each	**1.000**
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	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	11.000	10.000	0.300		33.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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	11.000	10.000	0.300		33.000
	Earth work for footing	3	1.400	1.400	0.600		3.528
	Total						**36.528**
						Total Quantity in cum	**36.528**
8.004	OD106803/2022-2023						
	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					150.000
	Total						**150.000**
						Total Quantity in no	**150.000**
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	10.600	8.600	0.150		13.674
	compound wall	1	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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	for footing	3	1.200	1.200	0.500		2.160
	Base slab	1	10.600	8.600	0.200		18.232
	Total						**20.392**
						Total Quantity in cum	**20.392**
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	10.500	0.250	4.000		21.000
	side wall 2	2	8.000	0.250	4.000		16.000
	Haunch	1	36.000	0.400	0.700	0.500000	5.040
	tank cover slab	1	11.100	9.100	0.200		20.202
	tank beam short	1	8.250	0.250	0.100		0.206
	tank beam long	1	10.500	0.250	0.100		0.263
	column inside tank	3	0.300	0.250	3.900		0.878
	PH Column	1	0.300	0.250	3.000		0.225
	PH lintel	1	18.620	0.200	0.100		0.372
	PH shade	2	1.800	0.600	0.075		0.162
	PH cover slab	1	5.780	4.730	0.120		3.281
	PH beam	2	4.400	0.250	0.130		0.286
	deduction for manhole	-6	0.455	0.610	0.150		-0.250
	Total						**67.665**
						Total Quantity in cum	**67.665**
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	10.500	0.250	4.000		21.000
	side wall 2	2	8.000	0.250	4.000		16.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Haunch	1	36.000	0.400	0.700	0.500000	5.040
	tank cover slab	1	11.100	9.100	0.200		20.202
	tank beam short	1	8.250	0.250	0.100		0.206
	tank beam long	1	10.500	0.250	0.100		0.263
	column inside tank	3	0.300	0.250	3.900		0.878
	PH Column	1	0.300	0.250	3.000		0.225
	PH lintel	1	18.620	0.200	0.100		0.372
	PH shade	2	1.800	0.600	0.075		0.162
	PH cover slab	1	5.780	4.730	0.120		3.281
	PH beam	2	4.400	0.250	0.130		0.286
	deduction for manhole	-6	0.455	0.610	0.150		-0.250
	Total						**67.665**
						Total Quantity in cum	**67.665**
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	5.400	0.200	3.000		6.480
	short wall	2	4.000	0.200	3.000		4.800
	shutter	-1	3.000	0.200	2.700		-1.620
	Windows	-3	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						
	parapet	1	20.900	0.150	0.450		1.411
	compound wall	1	44.000	0.150	1.500		9.900
	Total						**11.311**
						Total Quantity in cum	**11.311**
8.011	21.1.1.2						

Sl 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, Aluminnium 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 portionPowder coated aluminium (minimum thickness of powder coating 50 micron)						
	Aluminium works						
	Aluminium works	3				4.000000	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				3.000000	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	1.500	1.500		1.250000	8.438
	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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	shuttering for footing	3	4.800	0.500			7.200
	shuttering for base slab	1	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	11.100	4.000			88.800
	sidewall outside	2	9.100	4.000			72.800
	sidewall inside	2	10.000	3.600			72.000
	sidewall inside	2	8.000	3.600			57.600
	cover slab	1	10.600	8.600			91.160
	cover slab side	1	38.400	0.200			7.680
	long beam	1	10.000	0.500			5.000
	cross beam	1	8.000	0.500			4.000
	column side 1	3	1.100		3.900		12.870
	column PH	1	1.100		2.850		3.135
	pump house lintel	2	18.680	0.100			3.736
	pump house cover slab	1	5.780	4.730			27.339
	pump house slab side	1	21.020	0.120			2.522
	pump house beam	2	4.330	0.750			6.495
	pump house shade	2	1.800	0.600			2.160
	pump house shade side	2	3.000	0.075			0.450
	Haunch	1	36.000	0.800			28.800
	side for Man hole	6	2.130	0.150			1.917
	deduction for manhole	-6	0.610	0.455			-1.665
	deduction for beams	-1	17.500	0.250			-4.375
	Total						**482.424**
						Total Quantity in sqm	**482.424**
8.016	5.22.6						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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						
	Steel	88.057				120.000000	10566.840
	Total						**10566.840**
						Total Quantity in kilogram	**10566.840**
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	38.000	4.200			159.600
	inside wall of tank	1	36.000	3.600			129.600
	Haunch	1	36.000	0.800			28.800
	column inside tank	3	1.100		3.700		12.210
	cover slab bottom and top	2	10.500	8.500			178.500
	cover slab side	1	38.000	0.150			5.700
	side of manhole	6	2.130	0.150			1.917
	PH wall outside	1	19.420	3.000			58.260
	PH wall inside	1	17.820	3.000			53.460
	parapet	2	20.720		0.450		18.648
	PH slab Top and Bottom	2	5.780	4.730			54.679
	PH side of slab	1	21.020	0.120			2.522
	Beam	2	4.400	0.750			6.600
	column	1	1.100	2.750			3.025
	sunshade top and bottom	4	1.800	0.600			4.320
	sunshade side	2	3.000	0.075			0.450
	deduction for rolling shutter	-1	3.000		2.700		-8.100
	deduction for window	-3	1.500		1.500		-6.750
	Compound wall	1	44.000		3.150		138.600
	Total						**842.041**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in sqm	**842.041**
8.018	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, reservior, 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 engineerin-charge. The product performance shall carry guarantee for 10 years against any leakage.For vertical surface two coats @0.70 kg per sqm						
	Integral crystalline slurry						
	side wall 1	2	10.500	0.250	4.000		21.000
	side wall 2	2	8.000	0.250	4.000		16.000
	Haunch	1	36.000	0.400	0.700	0.500000	5.040
	column inside tank	3	0.300	0.250	3.900		0.878
	Total						**42.918**
						Total Quantity in sqm	**42.918**
8.019	22.23.2						
	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, reservior, 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 engineerin-charge. The product performance shall carry guarantee for 10 years against any leakage.For horizontal surface one coat @1.10 kg per sqm.						
	Integral crystalline slurry						
	Base slab	1	10.600	8.600	0.200		18.232
	Total						**18.232**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in sqm	**18.232**
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	38.000	4.200			159.600
	cover slab side	1	38.000	0.150			5.700
	side of manhole	6	2.130	0.150			1.917
	PH wall outside	1	19.420	3.000			58.260
	PH wall inside	1	17.820	3.000			53.460
	parapet	2	20.720		0.450		18.648
	PH slab Top and Bottom	2	5.780	4.730			54.679
	PH side of slab	1	21.020	0.120			2.522
	Beam	2	4.400	0.750			6.600
	column	1	1.100	2.750			3.025
	sunshade top and bottom	4	1.800	0.600			4.320
	sunshade side	2	3.000	0.075			0.450
	deduction for rolling shutter	-1	3.000		2.700		-8.100
	deduction for window	-3	1.500		1.500		-6.750
	Compound wall	1	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					80.000
	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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Ladder etc						
	Ladder etc	850					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					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	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					80.000
	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				0.470000	0.940

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	100mm wall casting pipes for outlet,scour etc	2				0.200000	0.400
	Total						**1.340**
						Total Quantity in quintal	**1.340**
8.027	OD247174/2022-2023						
	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					1.000
	Total						**1.000**
						Total Quantity in each	**1.000**
8.028	100.36.1						
	Filling water with 5000 litre tankers fited 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 appliences and cost of water etc. complete.						
	Filling water						
		300					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						
	Berm PWD	1	100.000	0.900	0.200		18.000
	Berm SH/NH	1	200.000	0.600	0.200		24.000
	CC Pavement PWD/SH	1	1485.000	0.900	0.350		467.775
	CC Pavement NH	1	4800.000	0.600	0.350		1008.000
	Tar cut NH/SH	1	250.000	0.600	0.400		60.000
	Tar cut PWD	1	100.000	0.900	0.400		36.000
	Total						**1613.775**
						Total Quantity in cum	**1613.775**
9.002	4.2.A.1						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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	100.000	0.900	0.250		22.500
	Berm SH/NH	1	200.000	0.600	0.250		30.000
	CC Pavement PWD/SH	1	1485.000	0.900	0.250		334.125
	CC Pavement NH	1	4800.000	0.600	0.250		720.000
	Tar cut NH/SH	1	250.000	0.600	0.200		30.000
	Tar cut PWD	1	100.000	0.900	0.200		18.000
	Total						**1154.625**
						Total Quantity in cum	**1154.625**
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	250.000	0.600	0.200		30.000
	Tar cut PWD	1	100.000	0.900	0.200		18.000
	Total						**48.000**
						Total Quantity in cum	**48.000**
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	250.000	1.500			375.000
	Tar cut PWD	1	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	250.000	1.500			375.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Tar cut PWD	1	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	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.						
	tack coat						
	Tar cut NH/SH	1	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	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.						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Close graded premix						
	TAR CUT PWD	1	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	100.000	1.350			135.000
	Total						**135.000**
						Total Quantity in sqm	**135.000**
9.011	12.4						
	Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregate 40 mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days.						
	PCC 40mm						
	CC Pavement PWD/SH	1	1485.000	0.900	0.150		200.475
	CC Pavement NH	1	4800.000	0.600	0.150		432.000
	Total						**632.475**
						Total Quantity in cum	**632.475**
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	1485.000	0.900	0.075		100.238
	CC Pavement NH	1	4800.000	0.600	0.075		216.000
	Total						**316.238**
						Total Quantity in cum	**316.238**
10	Road restoration charges -LSGD						
10.001	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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Tar Road	1	250.000	0.600	0.400		60.000
	For Concrete Road	1	550.000	0.500	0.350		96.250
	Total						**156.250**
						Total Quantity in cum	**156.250**
10.002	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						
	Tar Road	1	250.000	0.600	0.200		30.000
	For Concrete Road	1	550.000	0.500	0.200		55.000
	Total						**85.000**
						Total Quantity in cum	**85.000**
10.003	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	250.000	0.600	0.200		30.000
	Total						**30.000**
						Total Quantity in cum	**30.000**
10.004	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	250.000	1.000			250.000
	Total						**250.000**
						Total Quantity in sqm	**250.000**
10.005	5.2.3a						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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	250.000	1.000			250.000
	Total						**250.000**
						Total Quantity in sqm	**250.000**
10.006	5.9.1.2a						
	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	250.000	1.350			337.500
	Total						**337.500**
						Total Quantity in sqm	**337.500**
10.007	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	250.000	1.350			337.500
	Total						**337.500**
						Total Quantity in sqm	**337.500**
10.008	11.4.3.1						
	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203 III. P.C.C. grade M 20 (i) Nominal mix (1:2:4)						
	Cement concrete						
	for concrete road	1	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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
11.001	OD149124/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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 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, (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 (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 (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 (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 (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 						

Sl 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						
	pump sets						
		2					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
11.002	OD151203/2022-2023						
	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					6.000
	Total						**6.000**
						Total Quantity in no	**6.000**
11.003	OD151204/2022-2023						
	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	8.000				8.000
	Total						**8.000**
						Total Quantity in metre	**8.000**
11.004	OD151205/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	25mm PVC Conduit- Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recessincluding 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	6.000				6.000
	Total						**6.000**
						Total Quantity in metre	**6.000**
11.005	OD151209/2022-2023						
	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	6.000				6.000
	Total						**6.000**
						Total Quantity in metre	**6.000**
11.006	OD151210/2022-2023						
	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					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
11.007	OD151211/2022-2023						
	SPN 5-32A MCB-Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable forinductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. asrequired. Single pole and netural .As per Databook DAR Electrical-2.10.2.						
	MCB 5 -32 A						
		2					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
11.008	OD151212/2022-2023						
	DP Isolator 40A -Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete withconnections, testing and commissioning etc. as required. 40 amps .As per Databook DAR Electrical-2.12.1.						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	DP Isolator 40A						
		1					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
11.009	OD151213/2022-2023						
	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					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
11.010	OD151214/2022-2023						
	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, suitableGI 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					14.000
	Total						**14.000**
						Total Quantity in point	**14.000**
11.011	OD151215/2022-2023						
	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						
		1					1.000
	Total						**1.000**
						Total Quantity in set	**1.000**
11.012	OD151216/2022-2023						
	Expenses of getting electrical connection from KSEB including documentation fee, service charges, energization charges etc						
	Electrical connection expenses						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
		1					1.000
	Total						**1.000**
						Total Quantity in job	**1.000**
11.013	OD151293/2022-2023						
	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					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
11.014	OD152561/2022-2023						
	Supply conveyance ,installation testing and commissioning of36/40 W LED street/Yard light out put greater than105 lumen/watts 4000-6000K with IP66 protection with LED chip make cree/Lumilled/Nichea with powerfactor greater than 0.95 at full load ,internal surge protection up to 8 kv and alluminium preasure die cast powder coated housing acryliccover 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 maintanance(LM 79&80 Certificate from NABL acredited third party lab produced mentioning chip manufacturer)						
	Yard Light						
		4					4.000
	Total						**4.000**
						Total Quantity in no	**4.000**
11.015	OD203361/2022-2023						
	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. 						
	.						
		1					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
12	Electrification works and Supply erection testing and commissioning of pump sets at Poopara						
12.001	OD149129/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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 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, (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 (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 (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 (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 (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						

Sl 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						
	Poopara to Erachilpara						
		2					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
12.002	OD151128/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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, (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 (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 (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 (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 (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						

Sl 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						
	Poopara to Magna Peak						
		2					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
12.003	OD151297/2022-2023						
	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					6.000
	Total						**6.000**
						Total Quantity in no	**6.000**
12.004	OD151298/2022-2023						
	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	8.000				8.000
	Total						**8.000**
						Total Quantity in metre	**8.000**
12.005	OD151299/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	25mm PVC Conduit- Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recessincluding 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	6.000				6.000
	Total						**6.000**
						Total Quantity in metre	**6.000**
12.006	OD151300/2022-2023						
	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	6.000				6.000
	Total						**6.000**
						Total Quantity in metre	**6.000**
12.007	OD151301/2022-2023						
	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					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
12.008	OD151302/2022-2023						
	SPN 5-32A MCB-Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable forinductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. asrequired. Single pole and netural .As per Databook DAR Electrical-2.10.2.						
	MCB 5 -32 A						
		2					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
12.009	OD151303/2022-2023						
	DP Isolator 40A -Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete withconnections, testing and commissioning etc. as required. 40 amps .As per Databook DAR Electrical-2.12.1.						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	DP Isolator 40A						
		1					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
12.010	OD151304/2022-2023						
	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					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
12.011	OD151305/2022-2023						
	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, suitableGI 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					14.000
	Total						**14.000**
						Total Quantity in point	**14.000**
12.012	OD151306/2022-2023						
	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						
		1					1.000
	Total						**1.000**
						Total Quantity in set	**1.000**
12.013	OD151307/2022-2023						
	Expenses of getting electrical connection from KSEB including documentation fee, service charges, energization charges etc						
	Electrical connection expenses						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
		1					1.000
	Total						**1.000**
						Total Quantity in job	**1.000**
12.014	OD151308/2022-2023						
	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					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
12.015	OD152566/2022-2023						
	Supply conveyance ,installation testing and commissioning of36/40 W LED street/Yard light out put greater than105 lumen/watts 4000-6000K with IP66 protection with LED chip make cree/Lumilled/Nichea with powerfactor greater than 0.95 at full load ,internal surge protection up to 8 kv and alluminium preasure die cast powder coated housing acryliccover 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 maintanance(LM 79&80 Certificate from NABL acredited third party lab produced mentioning chip manufacturer)						
	Yard Light						
		4					4.000
	Total						**4.000**
						Total Quantity in no	**4.000**
12.016	OD203362/2022-2023						
	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. 						
	.						
		1					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
13	Electrification works and Supply erection testing and commissioning of pump sets at Jamespadi						
13.001	OD149131/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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. 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, (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 (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 (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 (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 (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						

Sl 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					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
13.002	OD151313/2022-2023						
	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					6.000
	Total						**6.000**
						Total Quantity in no	**6.000**
13.003	OD151314/2022-2023						
	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	8.000				8.000
	Total						**8.000**
						Total Quantity in metre	**8.000**
13.004	OD151315/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	25mm PVC Conduit- Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recessincluding 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	6.000				6.000
	Total						**6.000**
						Total Quantity in metre	**6.000**
13.005	OD151316/2022-2023						
	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	6.000				6.000
	Total						**6.000**
						Total Quantity in metre	**6.000**
13.006	OD151317/2022-2023						
	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					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
13.007	OD151318/2022-2023						
	SPN 5-32A MCB-Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable forinductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. asrequired. Single pole and netural .As per Databook DAR Electrical-2.10.2.						
	MCB 5 -32 A						
		2					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
13.008	OD151319/2022-2023						
	DP Isolator 40A -Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete withconnections, testing and commissioning etc. as required. 40 amps .As per Databook DAR Electrical-2.12.1.						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	DP Isolator 40A						
		1					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
13.009	OD151320/2022-2023						
	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					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
13.010	OD151321/2022-2023						
	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, suitableGI 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					14.000
	Total						**14.000**
						Total Quantity in point	**14.000**
13.011	OD151322/2022-2023						
	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						
		1					1.000
	Total						**1.000**
						Total Quantity in set	**1.000**
13.012	OD151323/2022-2023						
	Expenses of getting electrical connection from KSEB including documentation fee, service charges, energization charges etc						
	Electrical connection expenses						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
		1					1.000
	Total						**1.000**
						Total Quantity in job	**1.000**
13.013	OD151324/2022-2023						
	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					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
13.014	OD152571/2022-2023						
	Supply conveyance ,installation testing and commissioning of36/40 W LED street/Yard light out put greater than105 lumen/watts 4000-6000K with IP66 protection with LED chip make cree/Lumilled/Nichea with powerfactor greater than 0.95 at full load ,internal surge protection up to 8 kv and alluminium preasure die cast powder coated housing acryliccover 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 maintanance(LM 79&80 Certificate from NABL acredited third party lab produced mentioning chip manufacturer)						
	Yard Light						
		4					4.000
	Total						**4.000**
						Total Quantity in no	**4.000**
13.015	OD203364/2022-2023						
	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. 						
	.						
		1					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**