BILL OF QUANTITIES FOR THE PROPOSED NDUKUMA EARTH DAM DISTRIBUTION PIPELINES					
Preamble: The rates entered shall include, third party fees, levies, input costs, labour and contractor's overheads and profits.					
Item	**Description**	**Unit**	**Qty**	**Rate (Ksh)**	**Amount (Kshs)**
BILL 1:	**PRELIMINARY & GENERAL ITEMS**				
1.1	**Publicity Sign Board**				
1.1	Fabricate erect and maintain public sign post 1200x1200x1.5mm metal sheet, 1500mm above ground level. It should be anchored 600mm deep motorised in mass concrete and well supported with 50x25mm RHS frame to detail as provided in the drawing and as instructed by the project manager.	No	1		
1.2	Allow a provisional sum of Kshs. 350,000 for Technical Supervision	L/sum	1	350,000.00	350,000.00
1.3	E.O for profit and overheads for items 1.2 above	%	10		
	Sub Total Carried from Bill 1 to Main summary page				
BILL 2	**PIPELINE AND ELEVATED DISTRIBUTION TANK**				
NO	**Item Description**	**Unit**	**Quantity**	**Unit Rate**	**Amount**
	CLASS D: DEMOLITION AND SITE CLEARANCE				
	The rate quoted is for site clearance and demolition along construction wayleave. Rate shall be deemed to include removal of the material, natural and artificial articles, objects and obstructions which are above the original surface and carting away to tips, identified by the contractor in liaison with the Local Authority				
	KASEVE- MANDOI PIPELINE				

2.1	Design, fabricate and instal a 12M tank structure Tower supporting 29 m^3 tank Comprising of firm reinforced concrete foundation / concrete base, steel plate and holding down bolts, columns (minimum 110 x 110 x 4 mm SHS), UB horizontal top supports, horizontal and diagonal bracings, hopped cat ladder, top walkways top walkways with 2.1 mm thick chequered plates, safety hand railings, and seating plate	No	1		
2.2	Design, fabricate and instal an SBS Tank with an internal liner placed on the 12 m tower complete with walling made of Galvalume steel panels with thickness conforming to SANS 9364, steel grade G300, Galvalume (Zinc/Aluminum Alloy), AZ150 heavy duty protective coating, body Liner, hot dipped galvanized trusses and Galvalume steel corrugated sheets dome roof & the following listed accesories 29 m3 (Gross Capacity). 1 No. Access Hatch with hook on Ladder, 1No. Inlet Noz 50NB, 1No. Outlet Noz, 80NB, 1 No. O/flow, - 80NB, 1 No. Water Level Indicator, 1 No. Ventilator Static - 76 mm, internal & external ladders, safety cage with lockable door,. Ensure adherence to relevent standards - ISO 9001:2015 and ISO 45001:2018	No	1		
2.3	Test for water tightness, cleaning and sterilization of the tank	Item	1		
	piping and plumbing				
2.4	3" G.I Class B inlet pipe 6 m lengths c/w fittings, cutting and welding	LM	18		
2.5	3" G.I Class B G.I washout and outlet pipe 6 m lengths c/w fittings, cutting and welding	LM	36		
2.6	2" G.I Class B G.I overflow pipe 6 m lengths c/w fittings, cutting and welding	LM	18		
2.7	Supply, deliver, install and test cast iron metallic sluice valve 3" (DN75mm) metal PN16; stainless steel spindle double flanged with gaskets, bolts and nuts	No	1		
2.8	Allow for publicity branding c/w logos,	Item	1		

	General clearence				
2.9	Site clear and excavate to pipe invert level 600 mm n.e 1m below existing ground level and backfill/ reinstate to original ground level after testing pipeline, all to the approval of the engineer	LM	5300		
	CLASS I: PIPEWORK - PIPES				
	The rate quoted is for supply and transport to site storage, transport from site storage, excavate, lay and joint pipes complete with all jointing materials and but fusing. The rate is deemed to include excavation, bed lining, installation and backfilling of the pipe trenches. keep trenches and ther excavations free of water.				
	KASEVE-MANDOI DISPENSARY PIPELINE				
2.1	PN10 DN75mm HDPE PE100 ISO4427	LM	1500		
2.11	PN12.5 DN75mm HDPE PE100 ISO4427	LM	700		
2.12	Allow for electrofusion/ buttfusion of the pipes and fittings. Connectors and adaptors NOT PERMITTED in the distribution main pipeline	Item	1		
	MANDOI-KILISA PIPELINE				
2.13	PN12.5 DN63mm HDPE PE100 ISO4427	LM	2800		
2.14	PN12.5 DN75mm HDPE PE100 ISO4427	LM	100		
2.15	Allow for electrofusion/ buttfusion of the pipes and fittings. Connectors and adaptors NOT PERMITTED in the distribution main pipeline	Item	1		
	KILISA DISPENSARY				
2.16	PN10 DN 25mm HDPE PE100 ISO4427	LM	100		
	KILISA SECONDARY SCHOOL, MANDOI PRIMARY AND SECONDARY				
2.17	PN10 DN 25mm HDPE PE100 ISO4427	LM	100		
	Gate/ Sluice Valves				
2.18	Supply and install DN63 pegler gate valves for Line Valves	No	3		
2.19	Supply and install DN90 pegler gate valves for Line Valves	NO	1		
2.2	Supply and install DN75 gate valves for Line Valves	NO	2		
2.21	Supply and install 3/4" gate valves for Line Valves	No	4		
2.22	Supply and install 3/4" water meter	No	4		

2.23	Construct 500 mm x 500 mm valve chamber c/w lockable cover and padlock	No	13		
	Airvalves				
2.24	Supply and install DN50mm anti-shock/ anti-surge double- orifice Air Valves as per the attached technical specifications with flanged base	No	3		
	A.I.C KIMUUMO - MUTAITI (KISUU HILL) PIPELINE				
	General clearence				
2.25	Site clear and excavate to pipe invert level 750 mm n.e 1m below existing ground level and backfill/ reinstate to original ground level after testing pipeline, all to the approval of the engineer	LM	3450		
2.26	PN16 DN90mm HDPE PE100 ISO4427	LM	600		
2.27	PN12.5 DN90mm HDPE PE100 ISO4427	LM	2600		
2.28	Allow for onsite pipeline demarcation by the client representative	L/ Sum	1	20,000	20,000.00
2.29	Allow for electrofusion/ buttfusion of the pipes and fittings. Connectors and adaptors NOT PERMITTED in the rising main pipeline	Item	1		
	MUMBUNI DISPENSARY				
2.3	PN10 DN 25mm HDPE PE100 ISO4427	LM	250		
2.31	Supply and install DN50mm anti-shock/ anti-surge double- orifice Air Valves as per the attached technical specifications with flanged base	No	3		
2.32	Construct 500 mm x 500 mm valve chamber c/w lockable cover and padlock	No	3		
	Kaseve - Kwa Pius Market pipeline				
2.33	Site clear and excavate to pipe invert level 600 mm n.e 1m below existing ground level and backfill/ reinstate to original ground level after testing pipeline, all to the approval of the engineer	LM	2950		
	CLASS I: PIPEWORK - PIPES				

	The rate quoted is for supply and transport to site storage, transport from site storage, excavate, lay and joint pipes complete with all jointing materials and but fusing. The rate is deemed to include excavation, bed lining, installation and backfilling of the pipe trenches. keep trenches and ther excavations free of water.				
2.34	PN10 DN63mm HDPE PE100 ISO4427	LM	2250		
2.35	PN12.5 DN63mm HDPE PE100 ISO4427	LM	700		
2.36	Allow for connectors, adaptors and plumbing fittings in this distribution main pipeline	Item	1		
	Gate/ Sluice Valves				
2.37	Supply and install DN63 pegler gate valves for Line Valves	No	1		
2.38	Supply and install DN50mm anti-shock/ anti-surge double- orifice Air Valves as per the attached technical specifications with flanged base	No	3		
2.39	Construct 500 mm x 500 mm valve chamber c/w lockable cover and padlock	No	3		
	KAVULILONI PIPELINE				
2.39	Site clear and excavate to pipe invert level 600 mm n.e 1m below existing ground level and backfill/ reinstate to original ground level after testing pipeline, all to the approval of the engineer	LM	1700		
2.40	PN12.5 DN50mm HDPE PE100 ISO4427	LM	1700		
2.41	Allow for connectors, adaptors and plumbing fittings in this distribution main pipeline	Item	1		
2.42	Supply and install DN50 pegler gate valves for Line Valves	No	1		
	KITHONI LINE				
2.43	Allow for rehabilitation of a pipeline section c/w piping and plumbing fittings	Item	1		
	Marker Posts				

	Construct concrete marker posts and install along the water supply pipeline, all in accordance with details shown on drawings. (Reinforced concrete 1:2:4(class 20/20, bars D12), as per details on drawing				
2.44	Pipeline marker post inscribed WL	No	8		
2.45	Air valve marker post Inscribed GV/AV	No	4		
	BACKUP PUMP INSTALLATION				
2.46	Fabricate a firm rust-free steel stand 300 mm height to hold pump and motor inside the tank	No	1		
2.47	Repair of existing pump Dayliff DS 8 - 37 by replacing worn out impellers and neck rings inclusive of servicing. Install and test	Set	1		
2.48	Supply a backup motor 5.5 kw	No	1		
2.49	Splicing Kit, Medium Packet	No.	1		
2.50	Supply, Deliver & Install a control panel	No.	1		
2.51	Allow for three phase submersible/ armoured cable 4 mm sq 3 core	LM	60		
2.52	Supply fuel for testing and operation of generator	Ltrs	80		
2.53	provide for installation into tank 3" G.I pipes class B heavy gauge for connection to existing pump including cutting, jointing, welding and c/w adapter, elbow, unions and plumbing accessories	LM	24		
2.54	Supply and install DN90 PN16 flanged Sluice valves	No	1		
2.55	Supply and install 90 mm non return valve flanged type	No	1		
	Sub Total Carried from Bill 2 to Main summary page				
BILL	**3) VALVE CHAMBER**				
No.	**ITEM DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
				KShs.	**KShs.**
	Supply materials and provide personnel to construct Gate / Sluice Valve Chambers (as in the attached drawing)				
3.1	Cut the spoil upto 300mm below g.l. over the borehole chamber area and remove all vegetable soil to temporary spoil heap.	M^3	0.5		

3.2	Excavate foundation from stripped level over the borehole chamber site to depth n.e. 0.6m deep 300 mm wide and dispose soil as directed	M^3	1		
3.3	Mass concrete mix 1:4:8: in 50mm concrete slab	M^3	0.5		
3.4	225mm thick dressed quarry stone walling	M^2	5		
3.5	Provide and instal a lockable double steel Cover c/w padlock or a reinforced concrete cover as instructed	No.	1		
3.6	EXTERNAL PLASTER - 20mm thick 1:2 cement sand to exterior face of the valve chamber wall	M^2	4		
	Sub Total for 1 No valve chamber				
	Sub Total for 2 No valve chamber	No.	3		
3.7	Provide and instal a lockable double steel Cover c/w padlock or a reinforced concrete cover as instructed	No.	5		
	Sub Total Carried from Bill 3 to Main summary page				
BILL 4)	**COMMUNAL WATER POINTS**				
No.	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
				KShs.	**KShs.**
	Kwa Mutevu, Kivuliloni line, A.I.C Kimuumo, Kwa Pius				
4.1	Allow for construction of standard water point c/w gI fittings, water meter, gate valves and 2 No. lockable water taps 3/4" as instructed by supervising engineer	Item	4		
	Sub total carried for collection in the summary page				
BILL 5)	**WATER TREATMENT COMPONENT**				
No.	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
				KShs.	**KShs.**
5.1	Supply, install and test Mixtron MX 1.300 P022 Water Powered Dosing Pump 0.2 – 2% of water flow rate with a flexible dosing ratio and operating pressure of between 0.3 and 6 bar	No	1		
5.2	Supply, install and test Plastic tube rotameter flowmeter DN 32 LZS - 32 0.4 - 4 M3/HR	No	1		

5.3	Supply, install and test 170 LT Chemical tank	No	1		
5.4	Supply, install and test PVC Screen Filter 1"	No	1		
5.5	Supply, install and test HDPE reducing clamps 3" x 1"	No	2		
5.6	Supply and install pipework, PVC installation fittings and plumbing fittings for item 5.1, 5.2, 5.3, 5.4 and 5.5 above	Item	1		
5.7	Supply and instal chlorine 65 in the system above	Kgs	20		
5.8	Construct a secure and ventilated 2 m x 1.5 m x 2 m masonry house with reinforced concrete floor slab and roof slab, with a firm steel door to house the water treatment component	No	1		
	Sub total carried for collection in the summary page				
	GRAND SUMMARY PAGE				**AMOUNT**
	BILL DESCRIPTION				
BILL 1	PRELIMINARY & GENERAL ITEMS				
BILL 2	PIPELINE				
BILL 3	VALVE CHAMBER				
BILL 4	COMMUNAL WATER POINT				
BILL 5	WATER TREATMENT COMPONENT				
	ADD KSHS 50,000 FOR CONTIGENCY SUM TO BE EXPENDED BY PROJECT MANAGER				50,000.00
	SUB TOTAL				
	Public Procurement Capacity Building Levy order 2023 which is 0.03% of the total cost before tax (Pursuant to PPRA Circular No. 1 of 2024)				
	Add 16% for Value Added Tax				
	TOTAL TAKEN TO FORM OF TENDER				
