

KIKUU KIANGINI WATER PROJECT ENHANCEMENT - KATHOZWENI WARD BoQ					
ALL PRICES ARE INCLUSIVE OF TRANSPORT, LABOUR COSTS, PROFITS, OVERHEADS & 16% VAT					
BILL OF QUANTITIES					
Item	Description	Unit	Qty	Rate (Ksh)	Amount (Kshs)
Bill 1	GENERAL ITEMS / PRELIMINARIES				
1.1	Allow for mobilization of machinery, equipment and personel for due satisfactory implementation of the works and demobilization from site after completion, provision of security, personal protective equipments and insurance of works	Item	1		
1.2	Supply and erect publicity sign board on 1.5m x 1.2m metal sheet approximately secured on a 40 mm x 3mm thick steel frame at least 2m above the ground level and leveled as directed	No	1		
	Sub total carried for collection in the summary page				
Bill	B) REHABILITATION OF 200 CUBIC METER RC AND PUMPING SYSTEM				
Item	Description	Unit	Qty	Rate	Amount
2.1	Desilting and removal of sand and cleaning of the sump	CM	200		
2.2	Allow for dewatering of sump to keep away all waters during rehabilitation works. Inclusive where necessary pumping, river diversion	Item	1		
2.3	Replace the top reinforced manhole cover of the sump as directed by the supervising engineer	No	2		
2.4	Supply, and reinstal 4 mm sq x 4 core armoured / submersible cable	LM	50		
2.5	Supply, and reinstal 1.5 mm sq x 2 core armoured sensor cable	LM	50		
2.6	Retrieve, service and reinstall existing pump as directed by the supervising engineer	Item	1		
2.7	Supply and replace 7.5 kw motor	No	1		
2.8	splicing kit	No	1		
2.9	Testing and commissioning of the project	Item	1		
	Sub Total carried for collection in the summary page				
BILL	C) PIPELINE AND WATER CONNECTION				
NO.	ITEM DESCRIPTION	UNIT	QTY	RATE	AMOUNT KSHS.
	Rising Main Pipeline (Rehabilitation of rising main from St. Bakita to Elevated tank)				
3.1	Bush clearing and excavation to pipe invert level as per engineer's specifications (trench minimum depth 750 mm), lay, test pipeline and backfill to ground level for item below	LM	4300		

GOVERNMENT OF MAKUENTOUNT
 19 SEP 2024
 Officer:
 Environment & Climate Change

3.2	Supply, deliver, install and test O/D 90 mm (3") HDPE pipes PN16 as per KS ISO 4427:2007. To be laid in the same trench as item 3.1 above	LM	1000		
3.3	Supply, deliver, install and test O/D 90 mm (3") HDPE pipes PN12.5 as per KS ISO 4427:2007. To be laid in the same trench as item 3.1 above	LM	3300		
3.4	Butt fusion for item 3.2 and 3.3 above	Item	l/sum		
3.5	Provide for HDPE 3" x 1.5" tee (not clamp) for installation of air valve along the pipeline above as directed by supervising engineer	No	5		
3.6	Supply and install 50 mm (1.5") single orifice air valves	No	5		
3.7	Supply, deliver, install and test O/D 90 mm (3") G.I pipes class B 6 M Lengths. Rate to include welding, cutting, threading and joining at the Elevated Tank as directed supervising engineer	No.	3		
3.8	Distribution Pipeline (Rehabilitation of return pipeline from Kiangini Market to St. Bakita)				
3.9	Bush clearing and excavation to replace existing pipe as per engineer's specifications (trench minimum depth 600 mm), lay, test pipeline and backfill to ground level for item below	LM	1000		
3.1	Supply, deliver, install and test O/D 63 mm (2") HDPE pipes PN12.5 in 100 m rolls as per KS ISO 4427:2007. To be laid in the same trench as item above from Kiangini Market to St. Bakita	LM	1000		
3.11	90 mm x 63 mm HDPE reducer	No	1		
3.12	Provision of 90mm X 63mm tee at Kwa Chief Culvert for distribution pipeline to ICT	Unit	1		
3.13	Butt fusion for item 3.10 above	Item	l/sum		
3.14	Supply and install 90mm (3") Gate valves (Pegler PN 16 or equivalent as approved by supervising engineer) c/w flanged type together with fittings	No	1		
3.15	Supply, joint and test 63 mm (2") end cap	No.	1		
3.16	Pipeline From Kwa Chief Culvert to ICT				
3.17	Bush clearing and excavation of trench as per engineer's specifications (trench minimum depth 600 mm), lay, test pipeline and backfill to ground level for item 3.18 below	LM	500		
3.18	Supply, deliver, install and test O/D 63 mm (2") HDPE pipes PN12.5 in 100 m rolls as per KS ISO 4427:2007. To be laid in the same trench as item above and connected as per item 3.17 above	LM	500		
3.19	Supply, deliver, install and test O/D 63 mm (2") HDPE connectors	No	6		

GOVERNMENT OF MAKUENI COUNTY

19 SEP 2024

Environment & Climate Change
 Officer:

3.2	Supply and install 63 mm (2") Pegler Gate valves or equivalent as approved by supervising engineer) c/w fittings	No	3		
3.21	Supply and install 50 mm (1.5") Pegler Gate valves or equivalent as approved by supervising engineer) c/w fittings	No	1		
3.22	Construct communal water point at ICT as directed by supervising engineer c/w 3/4 meter, gate valve, and G.I outlet	No.	1		
3.23	Pipeline to Muthwani Secondary				
3.24	Bush clearing and excavation to to pipe invert level as per engineer's specifications (trench minimum depth 600 mm), lay, test pipeline and backfill to ground level for item 3.25 below	LM	2300		
3.25	Supply, deliver, install and test O/D 50 mm (1 1/2") HDPE pipes PN12.5 in 100 m rolls as per KS ISO 4427:2007. To be laid in the same trench as item above and connected as per item 3.24 above	LM	2300		
3.26	Supply, deliver, install and test O/D 50 mm (1.5") HDPE connectors for item above	No	24		
3.27	Supply and install 63mm X 50mm Tee as approved by supervising engineer) c/w fittings	No	1		
3.28	Supply and install 50 mm (1.5") Pegler Gate valves or equivalent as approved by supervising engineer) c/w fittings	No	1		
3.29	Provide for HDPE tee 50 mm (1.5") (not clamp) for installation of air valve along the pipeline above as directed by supervising engineer	No	2		
3.3	Supply and install 50 mm (1.5") single orifice air valves	No	2		
3.31	Construct communal water point at muthwani as directed by supervising engineer c/w 3/4 meter, gate valve, and G.I outlet	No.	1		
	Sub Total carried for collection in the summary page				

BILL	D) 10 CM TANK PLATFORM				
No.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				KShs.	KShs.
	Supply materials and provide personnel to construct a tank base platform 1 m high to hold a 10 m ³ plastic water tank Muthwani (as in the attached drawing)				
4.1	Cut the spoil upto 200mm below G.L over tank base and remove all vegetable soil to temporary spoil heap.	CM	1.5		

GOVERNMENT OF NIAKUENI COUNTY
 19 SEP 2024
 Chief Officer: 
 P. Chano

4.2	Excavate foundation from stripped level over the tank site to depth n.e. 0.6m deep 300 mm wide and dispose soil as directed	SM	10		
4.3	Mass concrete mix 1:4:8: in 50mm thick blinding to hardcore	CM	0.4		
4.4	225mm thick dressed quarry stone walling	SM	26		
4.5	Provided handle, cut, bend and fix 8 mm deformed steel bars on all alternate course of the wall	Kgs	28		
4.6	Damp proof course	LM	9		
4.7	Provide, pack and compact hardcore in 300 mm layers to fill the tank platform	CM	9		
4.8	Provided handle, cut, bend and fix 8 mm deformed steel bars on top slab	Kgs	16		
4.9	Vibrated reinforced concrete mix 1:2:4 in 100 mm thick for slab	CM	1		
4.1	EXTERNAL PLASTER - 20mm thick 1:2 cement sand to exterior face of tank wall	SM	10		
4.11	Supply, Deliver & Install a 10 m ³ Double Laminated Plastic Water Tank, c/w G.I 1.5" dia. Outlet & Overflow Pipes. To be mounted on 1.5 m high masonry tank platform	No.	1		
4.12	Supply and install (1.5") GI for inlet as approved by supervising engineer) c/w fittings	No	1		
	Sub total carried for collection in the summary page				
BILL	E) AIR/GATE VALVE CHAMBER				
No.	ITEM DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				KShs.	KShs.
	Supply materials and provide personnel to construct a air/gate valve chamber (as in the attached drawing)				
5.1	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		
5.2	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		
5.3	Mass concrete mix 1:4:8: in 50mm concrete slab	M ³	0.5		
5.4	225mm thick dressed quarry stone walling	M ²	5		
5.5	Provide and instal a lockable double steel Cover c/w padlock or a reinforced concrete cover as instructed	No.	1		
5.6	EXTERNAL PLASTER - 20mm thick 1:2 cement sand to exterior face of the valve chamber wall	M ²	4		

GOVERNMENT OF MAKUENI COUNTY

19 SEP 2024

Chief Officer:


	Sub Total for 1 No valve chamber				
	Sub total carried for collection in the summary page (for 13 No)	No.	13		
BILL	F) AGRICULTURE AND ENVIRONMENT				
No.	ITEM DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				KShs.	KShs.
6.1	Purchase and supply of vertical bags (Large kitchen garden sacks)	No	50		
6.2	Purchase and supply of conical garden (conical dam - liner polythene sheet)	No	75		
6.3	Purchase and supply of Kales seeds 50 grams (Hybrid)	Item	1		
6.4	Purchase and supply spinach seeds 50 grams (Local)	Item	1		
6.5	Purchase and supply amarathas (Managu) seeds 50 grams (Local)	Item	1		
6.6	Purchase and supply black night shade (Mchicha) 25 grams (Local)	Item	1		
6.7	Purchase and supply Coriander (Daniah) seeds 50 grams (Local)	Item	1		
6.8	Watering can	No	2		
6.9	Wheel barrow (Jua kali, heavy gauge, big wheels)	No	1		
6.1	Rake	No	2		
6.11	Spade	No	2		
6.12	Knapsack Sprayer - Jackto (20 litres)	No	1		
6.13	Potting Bags (6*9) (200 parkets with 100 pieces each)	No	200		
6.14	Shade net 55 % permiability (2m by 100m)	No	1		
6.15	Construct a structure 8 m by 25 m size 2.3 m high for the Tree nursery using 60 mm dia 1.5 mm thickness round hollow sections at least 5 m spacing with chainlink 50 x 50 mesh 4 ft height 2.5 G fixed all round and anchored using concrete and allowing a gate completely covered using high grade mesh. to be covered using item above	Item	1/sum		
6.16	Jembe	No	2		
6.17	Assorted Seeds (Mukau, neem tree, lucerna, moringa)	Kgs	10		
6.18	Purchase and supply of pasture seeds (Cencrus ciliaris, Eragrostis superba (Ndata Kivumbu and Mbeetwa)	KGs	153		
6.19	Supply and installation of Complete Drip Kit for 1/4 acre as approved	item	1		
6.2	Fencing of demo site (150 meters-perimeter) using reinforced concrete posts 8ft height on a firm foundation 3.5 m spacing 2ft depth, barbed wire 6 strands and 2 m wide steel gate	Item	1/sum		

GOVERNMENT OF MAKUENI COUNTY

19 SEP 2024

Chief Officer:  Chanzo

6.21	Supply, Deliver & Install a 5 m ³ Double Laminated Plastic Water Tank, c/w G.I 1.5" dia. Outlet & Overflow Pipes. To be mounted on 1.5 m high masonry tank platform at ICT irrigation demo and tree nursery	No.	2		
6.22	Supply and install (1.5") GI for inlet as approved by supervising engineer) c/w fittings	No	4		
6.23	Construct tank platform 1 m high for item above	No.	2		
Sub Total carried for collection in the summary page					

BILL	PROVISIONAL SUMS	UNIT	QTY	RATE	AMOUNT
G					KSHS.
6.1	Allow a Provisional sum of Kshs 360,000 for Contingencies to be expended by project manager				360,000.00
Sub Total carried for collection in the summary page					<u>360,000.00</u>

BILL	GRAND SUMMARY	UNIT	QTY	RATE	AMOUNT
					KSHS
A	GENERAL ITEMS/PRELIMINARIES				
B	REHABILITATION OF 200 CUBIC METER RC AND PUMPING SYSTEM				
C	PIPELINES AND WATER CONNECTION				
D	TANK PLATFORM				
E	VALVE CHAMBER				
F	ENVIRONMENT AND AGRICULTURE				
G	PROVISIONAL SUMS				360,000.00
TOTAL TAKEN TO TENDER FORM					

GOVERNMENT OF MAKUENI COUNTY

19 SEP 2024

Chief Officer: 