



ADDENDUM NO. 1

TENDER NO. EPZA 07/2022-2023

**BOREHOLE EQUIPPING AND CONSTRUCTION OF GALVANIZED
STEEL OVERHEAD TANK ON 18M TOWER EPZA HQ AT ATHI RIVER
EPZ, MACHAKOS COUNTY**

Further to the questions raised during the pre-site visit held on 08th February, 2023, attached herein are the Bills of Quantities.

SECTION E
BILLS OF QUANTITIES

BILLS OF QUANTITIES

PRICING OF PRELIMINARIES ITEMS

Prices will be inserted against item of preliminaries in the Contractor's Bills of Quantities and specification. These Bills are designated as Bill No.1 in this Section. Where the Contractor fails to insert his price in any item, he shall be deemed to have made adequate provision for this on various items in the Bills of Quantities. The preliminaries form part of this contract and together with other Bills of Quantities covers for the costs involved in complying with all the requirements for the proper execution of the whole of the works in the contract.

The Bills of Quantities are divided generally into three sections:

(a) Preliminaries – Bill No.1

Contractor's preliminaries are as per those described in section C – Contract Preliminaries and General Conditions of Contract. The Contractor shall study the conditions and make provision to cover their cost in this Bill. The number of preliminary items to be priced by the Tenderer has been limited to tangible items such as site office, temporary works and others. However, the Tenderer is free to include and price any other items he deems necessary taking into consideration conditions he is likely to encounter on site.

(b) Installation Items – Other Bills

- (i) The brief description of the items in these Bills of Quantities should in no way modify or supersede the detailed descriptions in the contract Drawings, conditions of contract and specifications.
- (ii) The unit of measurements and observations are as per those described in clause 1.0 5 of the section C.

(c) Summary

The summary contains tabulation of the separate parts of the Bills of Quantities carried forward with provisional sum, contingencies and any prime cost sums included. The Contract shall insert his totals and enter his grand total tender sum in the space provided below the summary.

This grand total tender sum shall be entered in the Form of Tender provided elsewhere in this document.

SPECIAL NOTES TO THE BILLS OF QUANTITIES

1. The Bills of Quantities form part of the contract documents and are to be read in conjunction with the contract drawings and general specifications of materials and works.
2. The prices quoted shall be deemed to include for all obligations under the contract including but not limited to supply of materials, labour, delivery to site, storage on site, installation, testing, commissioning and all taxes including V.A.T at the time of tender.
3. All prices omitted from any item, section or part of the Bills of Quantities shall be deemed to have been included to another item, section or part.
4. The brief descriptions of the items given in the Bills of Quantities are for the purpose of establishing a standard to which the contractor shall adhere to. Otherwise, alternative brands of **equal and approved** quality will be accepted.

Should the contractor install any material not specified here-in before receiving **approval** from the Project Manager, the contractor shall remove the material in question and, **at his own cost**, install the proper material.

5. The grand total of prices in the price summary page must be carried forward to the **Form of Tender**.
6. Tenderers must enclose, together with their submitted tenders, detailed coloured manufacturer's Brochures detailing Technical Literature and specifications on all the equipment they intend to offer.

Statement of Compliance

1. I confirm compliance of all clauses of the General Conditions, General Specifications and Particular Specifications in this tender.
2. I confirm I have not made and will not make any payment to any person, which can be perceived as an inducement to win this tender.

Signed: _____ *for and on behalf of the Tenderer*

Date: _____

Official Rubber Stamp: _____

BOREHOLE EQUIPPING AT EPZ ATHI RIVER

BILL No: 1 Preliminaries				
ITEM No.	DESCRIPTION	UNIT	RATE	KSHS
1	Discrepancies clause - Sub-contractor shall include all work either shown on the Contract Drawings or detailed in the specification. No claim or extra cost shall be considered for works which has been shown on the drawings or in the specification alone.	1		
2	Payments clause - Payment will be made through certificates to the Main Contractor, unless he specifically agrees to forego this right, in which case direct payment can be made to the Domestic Sub-contractor. All payments will be less retention as specified in the Main Contract. No payment will become due until materials are delivered to site	1		
3	Scope of contract works clause - The sub-contractor shall supply, deliver, unload, hoist, fix, test, commission and hand-over in satisfactory working order the complete installations specified hereinafter and/or as shown on the Contract Drawings attached hereto, including the provision of labour, transport and plant for unloading material and storage, and handling into position and fixing	1		
4	Extent of contractors duties clause - The Sub-contractor shall be responsible for verifying all dimensions relative to his work by actual measurements taken on site. Shall mark accurately on one set of drawings and indicate all alterations and/or modifications carried out to the designed system during the construction period. This information must be made available on site for inspection by the Engineer.	1		
Sub Total carried to next page				

BOREHOLE EQUIPPING AT EPZ ATHI RIVER

ITEM No.	DESCRIPTION	UNIT	RATE	KSHS
	Sub-Total B/F from Previous Page			
5	Firm price contract clause - No claims will be allowed for increased costs arising from the fluctuations in duties and/or day to day currency fluctuations. The Sub-contractor will be deemed to have allowed in his tender for any increase in the cost of materials which may arise as a result of currency fluctuation during the contract period.	1		
6	Variation clause - Any variation from the contract price in respect of any extra work, alteration or omission requested or sanctioned by the Architect or Engineer shall be agreed and confirmed in writing at the same time such variations are decided and shall not affect the validity of the Contract. Schedule of Unit Rates shall be used to assess the value of such variations. No allowance shall be made for loss of profit on omitted works.	1		
7	Prime cost and provisional sum clause - The work covered by Prime Cost and Provisional Sums may or may not be carried out at the discretion of the Project Manager. The whole or any part of these sums utilized by the Sub-contractor shall be deducted from the value of the Sub-contract price when calculating the final account.	1		
8	Government legislation and regulations clause - Sub- contractor shall allow for providing holidays and transport for work people, and for complying with Legislation, Regulations and Union Agreements. The Sub-contractor must also make himself acquainted with current legislation and any Government regulations regarding the movement, housing, security and control of labour, labour camps, passes for transport, etc.	1		
	Sub Total carried to next page			

BOREHOLE EQUIPPING AT EPZ ATHI RIVER

ITEM No.	DESCRIPTION	UNIT	RATE	KSHS
	Sub-Total B/F from Previous Page			
9	Import duty and VAT clause- (Note this clause applies for materials supplied only whether imported or locally manufactured. The tenderer shall make full allowance in his tender for all such taxes	1		
10	Insurance company fees clause - Attention is drawn to the tenderers to allow for all necessary fees, where known, that may be payable in respect of any fees imposed by Insurance Companies or statutory authorities for testing or inspection.	1		
11	Samples and materials generally clause - The Sub- contractor shall, when required, provide for approval at no extra cost, samples of all materials to be incorporated in the works. Such samples, when approved, shall be retained by the Engineer and shall form the standard for all such materials incorporated.	1		
	Sub Total carried to next page			

BOREHOLE EQUIPPING AT EPZ ATHI RIVER

ITEM No.	DESCRIPTION	UNIT	RATE	KSHS
12	<p>Sub-Total B/F from Previous Page</p> <p>Bills of quantities clause - All the Quantities are based on the Contract Drawings and are provisional and they shall not be held to gauge or to limit the amount or description of the work to be executed by the Sub- contractor but the value thereof shall be deducted from the Sub-contract Sum and the value of the work ordered by the Engineer and executed there under shall be measured and valued by the Engineer in accordance with the contract. All work liable to adjustment under this Sub-contract shall be left uncovered for a reasonable time to allow measurements needed for such adjustment to be taken by the Quantity Surveyor or Engineer. Immediately the work is ready for measuring the Sub- contractor shall give notice to the Quantity Surveyor or Engineer to carry out measurements before covering up. If the Sub-contractor shall make default in these respects he shall, if the Architect so directs, uncover the work to enable the necessary measurements to be taken and afterwards reinstate at his own expense.</p>	1		
13	<p>Contractors office in Kenya clause - It shall be the Sub- contractor's responsibility to procure work permits, entry permits, licences, registration, etc., in respect of all expatriate staff. The Sub-contractor shall prepare a substantial proportion of his Working Drawings at his office in Kenya. No reasons for delays in the preparation or submission for approval or otherwise of such drawings or proposals will be accepted on the grounds that the Sub- contractor's Head Office is remote from his office in Nairobi or the site of the Sub- contract Works or otherwise.</p>	1		
	Sub Total carried to next page			

BOREHOLE EQUIPPING AT EPZ ATHI RIVER

ITEM No.	DESCRIPTION	UNIT	RATE	KSHS
	Sub-Total B/F from Previous Page			
14	Builders work clause - All chasing, cutting away and making good will be done by the Main Contractor but the Sub-contractor shall mark out in advance and shall be responsible for accuracy of the size and position of all holes and chases required.	1		
15	Setting to work and regulating system clause- No testing or commissioning shall be undertaken except in the presence of and to the satisfaction of the Engineer unless otherwise stated by him (Sub-contractor's own preliminary and proving tests excepted). It will be deemed that the Sub-contractor has included in the Sub-contract Sum for the costs of all fuel, power, water and the like, for testing and commissioning as required.	1		
16	Identification of plant components clause - Sub-contractor shall supply and fix identification labels to all plant, starters, switches and items of control equipment etc with white traffolyte or equal labels engraved in red lettering denoting its name, function and section controlled.	1		
17	Working drawings clause - Sub-contractor shall prepare such Working Drawings as may be necessary. The Working Drawings shall be complete in such detail not only that the Sub-contract Works can be executed on site but also that the Engineer can approve the Sub-contractor's proposals, detailed designs and intentions in the execution of the Sub-contract Works.	1		
18	Records Drawings (As Installed) and instructions clause - Record Drawings, will be subject to the approval of the Engineer, include approved Working Drawings adjusted as necessary and certified by the Sub-contractor as a correct record of the installation of the Sub-contract Works.	1		
	Sub Total carried to next page			

BOREHOLE EQUIPPING AT EPZ ATHI RIVER

ITEM No.	DESCRIPTION	UNIT	RATE	KSHS
19	Sub-Total B/F from Previous Page Maintenance Manual clause - Upon Practical Completion of the Sub-contract Works, the Sub-contractor shall furnish the Engineer four copies of a Maintenance Manual relating to the installation forming part of all of the Sub- contract Works.	1		
20	Hand over clause - The Sub-contract Works shall be considered complete and the Maintenance and Defects Liability Period shall commence only when the Sub-contract Works and supporting services have been tested, commissioned and operated to the satisfaction of the Engineer and officially approved and accepted by the Employer, provided always that the handing over of the Sub- contract Works shall be coincident with the handing over of the Main Contract Works.	1		
21	Testing and inspection - manufactured plant clause - The Engineer reserves the right to inspect and test or witness of all manufactured plant equipment and materials. The right of the Engineer relating to the inspection, examination and testing of plant during manufacture. Sub-contractor shall give two weeks' notice to the Engineer of his intention to carry out any inspection or tests and the Engineer or his representative shall be entitled to witness such tests and inspections	1		
22	Initial Maintenance Clause - The sub-contractor	1		
	Sub Total carried to next page			

BOREHOLE EQUIPPING AT EPZ ATHI RIVER

ITEM No.	DESCRIPTION	UNIT	RATE	KSHS
23	<p>Sub-Total B/F from Previous Page</p> <p>Local and other authorities notice clause - The contractor shall comply with and give all notices required by any Regulations, Act or by Law of any Local Authority or of any Public Service, Company or Authority who have any jurisdiction with regard to the works or with those systems the same are or will be connected and he shall pay and indemnify the Government against any fees or charges legally demandable under any regulation or by-law in respect of the works; provided that the said fees and charges if not expressly included in the contract sum or stated by way of provisional sum shall be added to the contract sum.</p>	1		
24	<p>Temporary Works clause - The contractor shall include for the cost of and make necessary arrangements with the Project Manager for such temporary works.</p>	1		
25	<p>Patent Rights clause - The contractor shall fully indemnify the Government of Kenya; against any action, claim or proceeding relating to infringement of any patent or design rights, and pay any royalties which may be payable in respect of any article or any part thereof, which shall have been supplied by the contractor to the Project Manager.</p>	1		
26	<p>Mobilization and Demobilization clause - No claim will be entertained where the contractor has not made any provision for mobilization and demobilization of labour, plant and equipment in the preliminary bills of quantities.</p>	1		
	Sub Total carried to next page			

BOREHOLE EQUIPPING AT EPZ ATHI RIVER

ITEM No.	DESCRIPTION	UNIT	RATE	KSHS
27	<p>Sub-Total B/F from Previous Page</p> <p>Supervision by Engineer and site meetings clause - A competent Project Engineer appointed by the Chief Engineer as his representative shall supervise the Contract works. The Project Engineer shall be responsible for issuing all the site instructions in any variations to the works and these shall be delivered through the Contractor with the authority of the Project Manager. Any instructions given verbal shall be confirmed in writing. The Sub Contractor shall in his tender allow for the provision of management meetings and site inspections, as instructed by the Engineer, and also profit and attendance on these funds. The funds shall be expended according to Project Manager's instructions to the Contractor.</p>	1	300,000	300,000.00
28	Allow for Taxes, Profit and Attendance for the above Item	1		
29	<p>Contract obligation and employers obligation clause - No claims will be entertained for pre-financing of the project by the sub-contractor, or for loss of profit (expectation loss) in case of premature termination, reduction or increase of works as the sub-contractor shall be deemed to have taken adequate measures in programming his works and expenditure and taken necessary financial precaution while executing the works.</p>	1		
30	Any other preliminaries			
Total for Preliminaries C/F to Summary Page				

Borehole Equipping High level water tank storage

BILL NO.2: BOREHOLE EQUIPPING					
PART 2: Borehole Equipping					
Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
A	Supply and install 50mm diameter high density uPVC pressure water pipe (observation pipe), Class D.	450	Lm		
B	Supply and install high quality pressure gauge as Kent or equivalent range 0-7kgf/cm ² complete with accessories for mounting on galvanised pipe.	1	No		
C	Supply and install single orifice air valve, complete with pipe mounting accessories.	1	Item		
D	Supply and install 50mm diameter rising main high density PVC pipes complying to BS 4514 and fixed to manufacturer's instructions and conforming to BS5572.	280	Lm		
E	50mm diameter gate valve as 'pegler' or approved equivalent	1	No		
F	50mm diameter non-return valve as pegler or approved equivalent.	2	No		
G	50mm diameter galvanised steel bend	4	No		
H	50mm diameter water meter as 'Kent' or approved equivalent	1	No		
I	Supply and install a control panel to be mounted off the wall. The control panel shall be water tight with corrosion resistant from hinged lockable door metal enclosure and have Merlin Gerin swith-gear and Telemecanique control gear. The control panel shall have star-delta starter, phase failure, surge protector, isolator, voltmeter, ammeter, MCBs, 350m long float switch cable, float switch and any other necessary controls.	1	Item		
J	6mm ² 4-core PVC round hardened PVC submersible electric cable. Waterproof.	450	LM		
K	0.75mm ² PVC electrode cables waterproof.	650	LM		
L	2.5mm ² 4-core PVC/SWA/PVC cable from control panel to water tanks.	80	LM		
M	25mm diameter heavy gauge PVC ducts.	80	LM		
N	10mm ² x3 core underground cable	60	LM		
O	1.5mm ² x 2 core underground cable	60	LM		
P	Excavate trench of dimensions 300mm x 500mm to invert to lay cables. The laid cable to be covered with 50mm thick layer of fine soil, covered with tiles as "Hatari" then back fill and ram and dispose of excess.	60	LM		
Q	Electrode pair	1	No.		
R	Level regulator complete with mounting box	1	No.		
S	Allow for field labour and transport and also for the borehole equipment transport.	1	Item		
T	Allow for connecting 3-phase electric power to borehole pump (Power already on site) to conduct the necessary tests for the borehole equipment on site.	1	Item		
Sub-total for Part 2 C/F to Next page					

Borehole Equipping High level water tank storage

Item	Description	Qty	Unit	Rate (Kshs)	Amount (Kshs)
	Sub-total B/F from Previous page				
A	Supply, install, test and commission a Submersible multistage borehole pump, motor continuously rated and capable of pumping 10m ³ /hr of water against a total head of 350m. The entire pump-set body, impellers, shaft etc shall be made of heavy duty stainless steel material. The pump shall have inbuilt non-return valve, tail strainer and cable guard. The pump shall be suitable for 3- phase 415V. The pump shall be as 'PEDROLLO '6SR 27/17' or equal and approved.	1	No.		
B	Borehole chamber size 1500x1500x600mm deep with 100mm concrete 1:3:6 base 50mm block sides rendered all round in cement and sand 1:4 complete with approved lockable hinged and flanged galvanized steel cover frame,2No. Heavy duty stainless steel padlocks including all necessary excavation,disposal and formwork.	1	Item		
C	Allow for construction of standard pump house of size 2mx2m by 2m height c/w lock as shared in the attachment in specifications to house control panel,presure gauge,water meter.	1	Item		
D	Allow for preparation and submission of operation and maintenance manuals including all circuit diagrams for the installations to be submitted in 3 copies all to approval.	1	Item		
E	Allow provisional sum of Ksh 700,000 for solar PV powering of the borehole pump	1	Sum		
F	Allofw for power reticulation to the nearest power house in 6mm sq armoured cable	1	Item		
G	Allow for testing and commissioning of the borehole	1	Item		
	Total for Part 2 Carried Forward to Summary Page				

PART 3: High level water tank storage

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	HIGH LEVEL TANK				
A	Supply, deliver and Assemble a High level water tanks, made of GALVANIZED PRESSED STEEL Sectional tank plates and of size 1000mm x 1000mm -6mm thick capacity 50,000 litres, preferred dimensions 5000 x 5000 x 2000mm. The tank to come complete with tank cover, mosquito proof inspection vent, internal stays, jointing material, bolts and nuts including applying two coats of non-toxic bituminous paint on the inside and two coats of aluminum paint on the outside. The tank shall be complete with the following pipe connections:- -75mm diameter overflow -50mm diameter outlet -50mm diameter inlet -75mm diameter washout	No	1		
B	Float switch regulator	No	1		
C	Water level indicator	No	1		
D	Internal ladder	No	1		
E	External ladder from tank platform	No	1		
F	Galvanized tower ladder and protection cage of approximately 18 metres high	No	1		
G	Galvanized platform with features described in the particular specifications.	No	1		
H	Galvanized steel tower 18 metres high with features as described in the particular specifications.	No	1		
I	65mm diameter high pressure ball valve	No	1		
K	Allow for provision of construction of Base for the High level Water Tower	Item	1		
L	Allow for As Installed Drawings for the installations to be submitted in 3 copies A1 size all to approval.	No.	1		
M	Testing and Commissioning	Item	1		
	Project Stationery				
N	Ream white photocopying paper A/4 80G/m2	No	10		
O	Allow for Ksh 250,000 for CPD training for project management team.	Item	1		
P	1Tb external hard disk drive	No	3		
Q	HP laserjet pro toners (CF226A)	No	5		
	Total for High Level Water Tank				

<u>SUMMARY PAGE</u>		
	Description	Cost (Ksh)
1	Total for Contract Preliminaries	
2	Total for Part 2 :Borehole Equipping	
3	Total for Part 3: Water tank installations	
4	Allow for Ksh 1,000,000 contingency sum	1,000,000.00
Total Cost for Borehole Equipping and High Level tank carried to Form		

Amount in Words:

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Sub contract period.

Signature Date:

PIN NO. VAT CERTIFICATE No.
 (Provide copy) (Provide copy)

Witness Address:

Signature Date: