

## **CALL FOR PROPOSALS FOR TEST PUMPING, WATER QUALITY ANALYSIS AND REHABILITATION OF ITHAMBA AUME BOREHOLE IN MIKUYUNI SUB-LOCATION KIBWEZI WEST CONSTITUENCY, MAKUENI COUNTY, KENYA**

### **1. Introduction**

Fadhili Trust is a Christian organization that works through partnerships to design, promote, and implement innovative and sustainable projects to transform rural communities holistically. One of the primary areas of focus for Fadhili Trust is Kibwezi West in Makueni County, an arid and semi-arid region where water scarcity significantly impacts the local population. In response to the challenge, the borehole rehabilitation project has been initiated to provide a reliable water source for domestic use, livestock & for small-scale irrigation, directly addressing the community's needs.

The Nature + project aligns with the Sustainable Development Goals (SDGs), particularly Goal 6, emphasizing the importance of clean water and sanitation. By facilitating access to water, the project enhances residents' quality of life and supports broader initiatives for sustainable development and community resilience.

### **2. Purpose of the consultancy**

Fadhili Trust is seeking a competent company to provide the services of rehabilitation of Ithamba Aume borehole in Mbui Nzau Sub-Location, Kibwezi West Sub-County, Makueni County, Kenya.

### **3. Scope of Work**

The Contract to be established is for the rehabilitation of an existing borehole in Mbui Nzau sub-location, Kibwezi West Sub-County, Makueni County, Kenya.

The project site is located off Mombasa Road, east of the Mbui Nzau Area. Access to the site from Makindu Town is through Mombasa Road, driving to the left, turn off the exit to join the road that leads to Mbui Nzau Market. Once on this road, drive 4.9 kilometres past the SGR railway to the project site within the Mbui Nzau area. The location coordinates are E 0382552, N 9737549.

### **4. Terms of Reference**

The specific tasks are indicated on the **detailed Bill of Quantities (BoQs)** and will include, but are not limited to, the following:

- Mobilization of all plant, materials, equipment, and personnel to the project area.
- Installation of project signboard and branding.

- Borehole cleaning and development (Hydraulic-chemical intensive cleaning)
- Replacement of pump sets and accessories
- Installation of solar energy system
- Construction of a communal water point
- Supply and installation of 2No. 10m<sup>3</sup> UPVC tanks on a 6m high prefabricated steel structure
- Project testing
- Installation of a chain link fence
- Preparation of rehabilitation reports
- Project handover

#### **Deliverables**

- Fully finished, rehabilitated borehole
- 2 No. elevated UPVC storage tanks
- Communal water point
- final borehole rehabilitation report, including test pumping and CCTV report. CCTV inspection video log report must be presented to the client in USB format. A PDF format report detailing the protocol of the CCTV inspection before and after the regeneration.

#### **Indicative Schedule of Activities**

The prospective contractor shall submit a comprehensive work schedule in a Gantt chart format and a technical methodology proposal.

The work schedule shall include setting up the base camp, mobilization of materials, and personnel. It will also indicate borehole cleaning and development, replacement of pump sets and accessories, fencing, preparation of reports, and project handover. This schedule shall be checked and approved by the Supervisor. The methodology encompasses on how the whole exercise will be undertaken, citing technical specifications.

### **5. Qualifications, Experience, and Skills**

The following skills are expected in the team at a minimum:

#### **a) The Project Manager**

The project Manager/ engineer should have a BSc. in civil/water engineering or equivalent technical qualification with over 3 years in an active water works construction environment. The Project Manager should have at least 7 years of experience in construction, management and operation of water projects. Registration with relevant professional bodies (EBK and IEK).

#### **b) Electrical Engineer**

The electrical engineer should have a BSc. in Electrical Engineering or equivalent technical qualification with over 3 years in an active solar power installation environment. Registration with relevant professional bodies (EBK and IEK) and having a valid EPPRA license.

#### **c) General Foreman**

The foreman should have relevant technical qualifications, such as at least a Diploma in water and/or Civil engineering or related qualifications. At least five years of experience in the construction of water works. The foreman will conduct day-to-day quality checks, control and provide technical support. Registration with the relevant professional bodies, including NCA as site agent/supervisor, is mandatory.

#### **d) Mason**

The foreman should have relevant technical qualifications such as at least a craft or Grade Test certificate or related qualifications in masonry, and at least five years of experience in construction.

#### **e) Plumber or Pipe Fitter**

The foreman should have relevant technical qualifications such as at least a craft or Grade Test certificate or related qualifications in Plumbing and at least five years of experience in construction.

### **6. Terms of Payment**

Payments to the contractor will be made in milestones as follows:

- 50% will be paid after mobilization of equipment, technical staff, and signing of the contract.
- 30 % after satisfactory completion of borehole cleaning, test pumping and presentation of reports.
- 15% upon completion of all the tasks as per this TOR, testing, and project completion.
- 5% to be held as retention for 3 months to take care of any defects.

### **7. Application Criteria**

Interested contractors should submit a detailed proposal capturing the following:

#### **Mandatory requirements:**

- A Copy of the Certificate of Incorporation/Registration,
- A copy of the Current Tax Compliance certificate from Kenya Revenue Authority
- Copy of a Valid and current Business Permit from Makueni County,
- Bid Bond

#### **Technical Requirements:**



- A copy of CR12 Form and a copy of the National Construction Authority (NCA 8) registration Certificate for at least Class 8 which must be in the waterworks Category. They should be attached as Annexes.
- Company Experience: Evidence of company-proven experience with details of contracts and references for works undertaken similar water works (Attach at least 2 completed contracts with a certificate of completion)
- Company Equipment or Hire: attach log books of owned plant and equipment or lease agreements with logbooks. The required plan and equipment are pickup, a drilling rig, a truck/lorry/pickup with test pumping or pulley system.
- Proven track record, technical expertise and experience. Provide a brief overview of how the proposed candidates meet the qualifications, experience, and skills requirements. Attached CVs and Certificates of the project manager, electrical engineer, general foreman, plumber and mason as annexes.
- A three (3) month bank statement up to December 2024.
- A costed BOQ signed by the Managing Director
- A detailed work plan with a Gantt chart
- A technical proposal detailing how the Contractor will undertake the works

#### 8. Submission of Quotes

The Bids shall be submitted in soft copies through email to: [procurement@fadhilitrust.org](mailto:procurement@fadhilitrust.org) and [info@fadhilitrust.org](mailto:info@fadhilitrust.org) with the subject “**Ithamba Aume Borehole Rehabilitation**”.

#### 9. Site visit/Inspection

The bidder is strongly advised to visit and examine the site of works and its surroundings and obtain for himself, at his own expense, all information that may be necessary for preparing the tender and entering into the contract. The bidder shall be fully responsible for the reliability and accuracy of all information so obtained. Bidders should contact Mathew Mutembei at the Fadhili Trust Office Line at **+254 710401208** for directions to the site for evaluation.

#### 10. Request for clarification

All queries and additional information regarding the bid are to be channelled through [procurement@fadhilitrust.org](mailto:procurement@fadhilitrust.org) and [info@fadhilitrust.org](mailto:info@fadhilitrust.org) strictly and must be received no later than **Monday, the 16<sup>th</sup> of June, 2025, at noon** East African Time.

#### 11. Deadline for submission of the quotation

The technical and financial proposals must be received not later than **Monday, 23<sup>rd</sup> June, 2025, at 3:00 pm**, East African Time.

## **12. Evaluation criteria**

Evaluation will be based on administrative, technical, and financial requirements. Failure to submit any of the documents requested at the administrative level will result in disqualification.

## **13. Notification of the results**

Only the successful bidder will be notified, and if you do not receive email communication within two weeks after the expiry of the deadline, consider your bid not successful

## **14. Language for the bids**

The language for the bids shall be **English** only.

## ***Disclaimer***

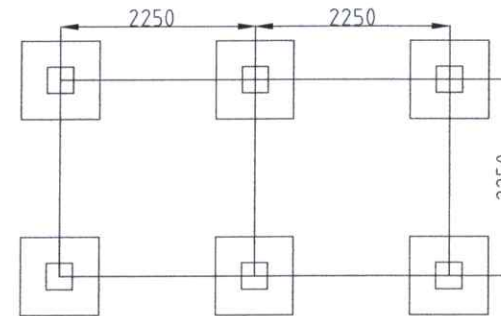
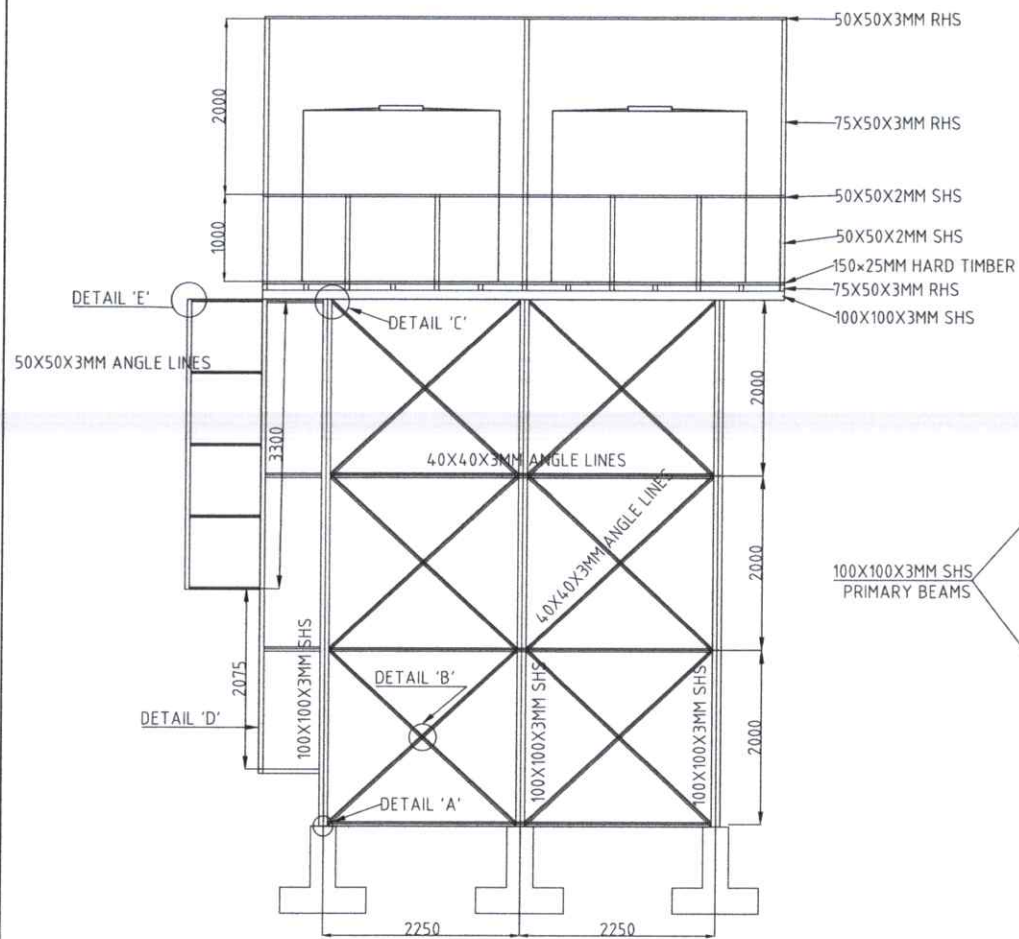
*This is only an invitation to bid, and Fadhili Trust reserves the right to either amend or cancel it at any time with or without notice. In such cases, Fadhili Trust shall accept no liability whatsoever. The prospective bidder is wholly responsible for any costs related to the preparation and submission of their quotations. Fadhili Trust is not bound to accept the lowest or the highest bidder and the decision of the Fadhili Trust Procurement Review Committee shall be final.*

**BILL OF QUANTITIES FOR PROPOSED ITHAMBA AUME BOREHOLE REHABILITATION WORKS IN KIBWEZI WEST SUB-COUNTY**

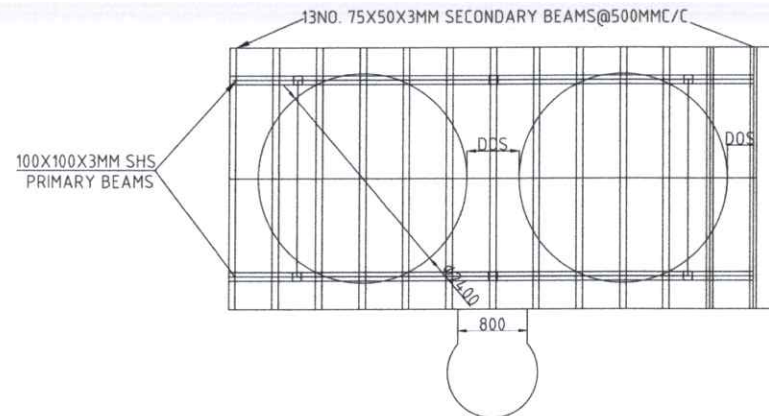
Item No.	Description of Work/Material	Unit	Quantity	Rate (Kshs)	Total (Kshs)
<b>1</b>	<b>Preliminary Works</b>				
1.1	Mobilization and transportation of equipment, tools, and materials.	LS	1		
1.2	Site preparation and securing the area.	LS	1		
1.3	Supply and erect a publicity sign board on 1.5m x 1.2m metal sheet, approximately secured on a 40 mm x 3mm thick steel frame at least 2m above the ground level and levelled as directed	No	1		
<b>2</b>	<b>Borehole cleaning and development( Hydraulic-chemical intensive cleaning)</b>				
2.1	Mechanical surging with double surge block(Swabbing block)	Hour	8		
2.2	Air jetting to remove fine sediments and blockages	Hour	6		
2.3	Bailing to remove heavier deposits	Hour	5		
<b>3</b>	<b>Replacement of Components</b>				
3.1	Submersible pump Pedrollo 4SR8/32- F 4KW Pump end (Or equivalent) (5.5Kw, installed at 130m, yielding 6m <sup>3</sup> /hr, thickness: 100mm)	Piece	1		
3.2	Pedrollo PD/5.5-4KW Sub Motor	Nr.	1		
3.3	STD Column pipes (1.5" diameter, UPVC for 130m depth)	Nr.	45		
3.4	Piezo Pipes 25MMD- 6MTRS	Nr.	23		
3.5	Power cables (4mm2x4 Flat drop cable) suitable for 130m	Meter	135		
3.6	Londex STD Dual Core Cable	Meter	130		
3.7	Armoured underground cables (4mm2x4 Flat drop cable) for secure power connection	Meter	50		
3.8	Solar connector cables for panels( Red and black)	Metres	30		
3.9	SOLLATEK AVS 3PH	Nr.	1		
3.1	Adaptor set (rust- proof materials)	Nr.	1		
3.11	General borehole accessories (Splicing kit, adhesive tapes, clips)	LS	1		
<b>4</b>	<b>Solar Energy System</b>				
4.1	Solar panels (Sized for 4.0kW pump system) 12pcs of 500w	w	6000		
4.2	Solar mounting structure (galvanized steel)	Nr.	1		
4.3	Installation Labour	Nr.	1		
4.4	Dayliff SV3 5.5KW 3PH Sunverter	Nr.	1		



4.5	PV disconnect for inverter 1000/16A2ST	Piece	1		
<b>5</b>	<b>Testing and inspection</b>				
5.1	Well Inspection with colour camera( axial and radial perspective) before and after regeneration up to 130m depth	Hour	2		
5.2	Pumping test (yield and recharge assessment)	Hour	24		
5.3	Water sampling and quality( Minimum 2suitable x two-litre capacity water containers testing	Test	2		
<b>6</b>	<b>Security and fencing</b>				
6.1	Chain link fence with lockable gate	Sq.Ft	1		
6.2	Dayliff WP DN50 Woltmann Water Metre	Nr.	1		
6.3	Steel borehole cover and accessories (Diameter: 215.9 mm)	Piece	1		
<b>7</b>	<b>Elevated Storage Tanks</b>				
7.1	Supply and install 6m high prefabricated steel structure to hold 2No. 10m <sup>3</sup> UPVC tanks as per the provided drawing	item	1		
7.2	Supply and install 2No. 10m <sup>3</sup> UPVC tanks on steel structure to hold. Rate inclusive of DN65mm PPR pipe plumbing; inlet out let and overflow	No.	2		
<b>8</b>	<b>Training and handover</b>				
8.1	Preparation and submission of the final rehabilitation report including test pumping and CCTV report. CCTV inspection video log report must be presented to the client in USB format. A PDF format report detailing the protocol of the CCTV inspection before and after the regeneration.	LS	1		
<b>9</b>	<b>WATER POINT</b>				
9.1	Provide materials and construct a 2.5x2 m standard ministry water kiosk with a roof slab as per the provided drawing	No.	1		
<b>10</b>	<b>Provisional Sums</b>				
10.1	Allow a provisional sum of Kshs. 50,000 for Contingencies	LS	1		
	Total Sum				
	VAT (16%)				
	Grand Total				



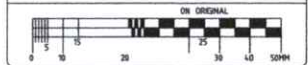
FOUNDATION LAYOUT



ALL DIMENSIONS AND LEVELS ARE TO BE VERIFIED ON SITE BY THE CONTRACTOR BEFORE COMMENCING ANY WORK.

THE COPYRIGHT IN THIS DRAWING, INCLUDING THE DESIGN AND DETAILS SHOWN HEREIN, IS RESERVED BY THE ENGINEERS.

THIS DRAWING IS NOT TO BE USED IN WHOLE OR PART OTHER THAN FOR THE INTENDED PURPOSE AND PROJECT AS DEFINED ON THIS DRAWING AND SUBJECT TO THE CONTRACT FOR FULL TERMS AND CONDITIONS.



GENERAL NOTES:

- 1: ALL CONCRETE TO BE CLASS 25/20 (1 : 1.5 : 3)
- 2: REINFORCEMENT TO BE HIGH YIELD SQUARE TWISTED "Y" AND MILD STEEL ROUND "R" AS INDICATED
- 3: MINIMUM COVER TO MAIN REINFORCEMENT TO BE :  
COLUMNS = 40mm  
FLOOR BEAMS = 25mm
- 4: ALL REINFORCEMENT TO BE INSPECTED BY THE STRUCTURAL ENGINEER BEFORE CONCRETING
- 5: ALL STRUCTURAL STEEL TO BE GRADE 430
- 6: ALL STEELWORK SHALL BE PRIMED WITH ONE COAT OF RED OXIDE PRIMER AT SHOP AND ONE COAT AFTER ERECTION
- 7: ENDS OF HOLLOW SECTIONS SHALL BE BLANKED WITH 3mm THK PLATES
- 8: THE FABRICATOR SHALL CHECK SITE TO VERIFY ALL DIMENSIONS
- 9: APPROVAL OF SHOP DETAILS MUST BE OBTAINED FROM THE ENGINEER PRIOR TO COMMENCEMENT OF FABRICATION

No.	DATE	DETAILS	CHG	Appd
		REVISIONS		

Client  
Fadhili Trust  
FADHILI TRUST  
P.O. BOX 244-00511  
ONGATA RONGAI

CONSULTANT

Consultant Signature

Drawn: D.K. ENG. MEK  
Designed: ENG. KITHOME C.

Project

Description

ELEVATED WATER TANKS

Scale: AS SHOWN Date: 2025

Project No. / Drg. No.



