

Islamic Relief Kenya

TENDER DOCUMENT FOR THE CONSTRUCTION REHABILITATION OF OVO AND ADELE BOREHOLES IN TANA RIVER COUNTY.

REF NO: IRK/TNR/WORKS/002/03/2025

ISSUED ON: THURSDAY, 13^{TH} MARCH 2025

CLOSING DATE: WEDNESDAY, 26TH MARCH 2025 11.00 AM

NAME AND CONTACT OF PROCURING ENTITY:

Islamic Relief Kenya Kirichwa Road, off Ngong Road P.O.BOX 417 – 00202 KNH, Nairobi

Email: procurement.Irk@islamic-relief.or.ke

INSTRUCTION TO BIDDERS

Established in 1984 in the UK, Islamic Relief is an international NGO seeking to promote sustainable economic and social development by working with local communities through relief and development activities regardless of race, color and religion, and without expecting anything in return.

IR started operations in Kenya in 1993 on orphan's sponsorship programme through a local CBO in Mandera District, Northern Kenya. It opened its fully fledged office in March in 2006 at the height of drought in the Horn of Africa. Since then, IR has been providing humanitarian and developmentassistance to vulnerable communities. Over these years it has implemented various developmentand relief activities in Mandera. This has remarkably changed the lives of the vulnerable and disadvantaged communities. In January 2010, IRK extended its operation to Wajir County and in January 2012 expanded to Garissa and Dadaab, and in October 2017 opened a programme office in Kilifi County.

Islamic Relief Kenya focuses on resilience projects namely: Food Security and Livelihoods, Water Sanitation and Hygiene, Cash Transfer Programming, Orphans Support and Sponsorship, women Empowerment, Education and Peacebuilding.

The WAVE project is under implementation in Tana River County Kenya. It aims to implement inclusive climate adaptation and resilience actions and strategies at grass root levels to increase the adaptive capacity and level of climate resilience of the target communities, the project outcomes are,

- 1. Increased access to potable and sufficient water for human and livestock consumption and for small-scale irrigation.
- 2. Improved agricultural and livestock productivity through supporting extension services and climate smart agricultural practices, for optimal food production.
- 3. Increased income and asset growth for the unemployed urban, and peri urban youths.
- 4. Strengthened community managed disaster risk reduction capacity.

Islamic Relief Kenya is planning to undertake CONSTRUCTION REHABILITATION OF OVO AND ADELE BOREHOLES IN TANA RIVER COUNTY.

A complete set of tender documents may be obtained Free of Charge by interested candidates by downloading from the link provided: Islamic Relief Kenya website: https://islamic-relief.or.ke

Complete one tender document in pdf format (max 25mb) with subject as tender name and reference number **TENDER:** IRK/TNR/WORKS/002/03/2025 **to** be submitted via email <u>tenders@islamic-relief.or.ke</u> no later than Wednesday 26th March 2025 at 11:00 am.

Tenders will be opened immediately thereafter in the presence of bidders or their representatives who choose to attend in the Islamic Relief Boardroom. Any tender documents received later than the deadline will not be accepted.

At the tender opening, IRK will announce the tenderer's names, total tender price, and such other details as the Employer, at his discretion, may consider appropriate. No tender shall be rejected at the tender opening except for late tenders. Tenders not opened and read out at the tender opening shall not be considered further for evaluation, irrespective of the circumstances.

Prices quoted should be inclusive of all taxes, must be in Kenya shillings and shall remain valid for (60) days from the closing date of tender.

Bid Submission Format:

Eligible bidders can download a complete set of tender documents with evaluation criteria from the Islamic Relief Kenya website: https://islamic-relief.or.ke Complete one tender document in pdf format (max 25mb) with subject as tender name and reference number to be submitted via email tenders@islamic-relief.or.ke no later than March 26th March, 2025 at 11:00 am

A complete set of tender documents may be obtained Free of Charge by interested candidates by downloading from the link provided: Islamic Relief Kenya website: https://islamic-relief.or.ke

Interested bidders are advised to read the submission instructions carefully to ensure compliance **Submission Email**: To be submitted via email: tenders@islamic-relief.or.ke

Single PDF Document: Each bid must be submitted as a single, consolidated PDF document (Max 25mb). Multiple or fragmented submissions will not be accepted.

Bidder Email: Interested bidders may submit their bids **ONLY** from the official email address of the bidder or company

Direct PDF Attachment Only: Bid documents must be attached directly as PDF files in the submission email. Links to external file-sharing platforms, such as Google Drive or Dropbox, are not permitted and will not be reviewed.

Subject Line Specification: Bidders must include the tender name and reference number in the email subject line to ensure proper filtering and identification of submissions.

Tender Tittle: Construction Rehabilitation of Ovo and Adele Boreholes in Tana River County

Disqualification Notice: Failure to adhere to these submission requirements will result in the disqualification of the bid.

INSTRUCTION TO BIDDERS

PROCURING ENTITY: ISLAMIC RELIEF KENYA. P.O BOX 417-00202 KNH, Nairobi

CONSTRUCTION REHABILITATION OF OVO AND ADELE BOREHOLES IN TANA RIVER COUNTY.

- 1. All Tenders above must be accompanied by a Bid Bond at least 10% of the quoted amount valid for 180 days.
- 2. Only tenders submitted electronically will be accepted. Late tenders will be rejected

3. Work Scope and Sites Details

The tender is for undertaking the following components as per Annex I – BoQ and Annex II – Drawings:

Eligible Bidders

The invitation for the bids is open to all interested eligible Companies/individuals who are duly registered with the national government, respective County governments and National construction authority.

4. Services

All services to be done under the contract shall have their measurement and shall not be subcontracted.

5. Cost of Bidding

The bidders shall bear all costs associated with preparation and the submission of its bid & IRK will in no case be responsible for those costs, regardless of the conduct or outcome of the bidding process.

6. Clarification of Bidding Documents

Interested eligible candidates who may want to obtain further information or seek for clarification can do so by sending an email to Procurement.Irk@islamic-relief.or.ke OR +254 727531220 / 2543861216. IRK will respond in writing to any request prior to the deadline.

If you have any concerns – relating to this tender or otherwise – or want to make a complaint please:Call us on +254 700 200 849 Email us at: complaints@irworldwide.org

7. Amendment of Bidding documents

At any time prior to the deadline for submission of bids, IRK May for any reason, at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents & will be binding on them. The amendment will be notified in writing to all prospective bidders, who have received the bidding documents & will be binding on them. In order to allow prospective bidders responsive time in which to take the amendment into account in preparing their bids, IRK may, at its discretion, extend the deadline for bid submission.

8. Language of the Bid

The bid prepared by the bidder, as well as all correspondence & documents relating to the bid, supporting documents and printed literature furnished by the bidder shall be written in English language.

9. Bid Document Comprises.

The bid document prepared by the bidder shall comprise of the following:

- a) Each page of the tender document is serialized.
- b) Form of tender signed and stamped by the authorized person.
- c) Tender submitted with tender security as required (bid bond 10% of the quoted amount)
- d) Completed and signed confidential business questionnaire form.
- e) Certified Copy of Certificate of Incorporation/Registration.
- f) Disclosure of business ownership (Directors/ Partners /Sole Proprietor). Attach a copy of CR12 Form
- g) Certified Copy of Current Tax Compliance certificate from Kenya Revenue Authority must verifiable online –itax
- h) KRA PIN with VAT obligation
- i) Certified Copy of Valid and current Business Permit
- j) Certified copy of Valid registration for National Construction Authority NCA 7 and above water and building works
- k) Bidder to provide self-declaration that the person/tenderer will not engage in any corrupt or fraudulent practice.
- 1) Only certified Statement of comprehensive income for the last three years (Max. 3 pages) signed by auditors.
- m) Company Profile with brief business description, physical location, address and company structure (Max. 5 pages).
- n) Evidence of Past Experience in Similar work done for the last 5 years e.g. at least 5 signed contracts supported by LPO and Certificate of Completion
- o) Copy of ID/Passport for Company Owner/Director
- p) Bid bond (10% of the quoted amounts)
- q) Key Technical staff and their CVs (Key people but not more than four CVs)
- r) List of Key Equipment (**only** relevant equipment).
- s) Detailed workplan and methodology statement: Work plan demonstrating flow of work from inception to site hand over) (Max 3 pages)
- t) Bank Statement for 6 months (1st September $2024 28^{th}$ February 2025)
- u) Duly filled Tender B.o.Q and forms in the format provided
- v) All copies of certified/mandatory documents must be Certified by a Commissioner of Notary/ Oath.

NB: - Partial delivery of the documents will lead to disqualification. Preference shall be given to qualified local supplier with valid licenses.

- It is advisable that the bidder at own cost and convenience to undertake a physical visit and assessment of the particular site for the proposed works prior to the compilation of the bid.

10. Bid Currencies

The bids prices shall be quoted in Kenya Shillings (KES).

11. Bids Prices

- The potential contractor shall submit his/her bid in the BOQ format provided in Annex I
- The bidders shall indicate the unit price where possible and the total bid price as indicated in the BOQ.
- Prices quoted by the bidder shall be fixed during the performance of the contract.

12. Withholding Tax

IRK shall retain 3% of contract value as withholding tax and remit to the government. A receipt shall be issued for this.

13. Retainer

IRK shall retain 10% of the contract value for a period of 6 months being defect liability.

14. IRK's right to vary quantities at the time of the award

IRK reserve the right at the time of the award of contract to increase or decrease by up to 10% the quantity of work specified in the technical specification without change of unit price or other terms of condition.

15. IRK's right to accept any bid and/or reject any or all bids

IRK reserves the right to accept any bid and to annul the bidding processes and reject all bids at any time prior to award of contract, without, thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders on the grounds of its action.

16. Submission of Bids

The bidders shall submit their bids in one envelope marked with Tender Name and Reference.

17. Evaluation

- 18.1 IRK will examine the prequalification documents to determine completeness, general orderliness, sufficiency in responsiveness, price and product brand.
- 18.2 The potential contractor shall not contact IRK on matters relating to their bid from the time of opening to completion and official communication sent to them. Any effort by the potential contractor to influence IRK in the evaluation shall result in disqualification.
- 18.3 Prequalification will be based on meeting the minimum criteria regarding the applicant's legal status, general and experience, personnel and financial position as demonstrated by their responses as set in clause
- 18.4 The applicants <u>MUST</u> have registered offices and IRK reserves the discretion of visiting physical premises from which the applicant conducts business if so desired to confirm existence and capability to execute the contract.
- 18.5 Due diligence shall be undertaken, and any bidder found to be in breach by providing false information shall be disqualified.

19. Employment of Minors

The Contractor shall not employ children in executing the contract. The Contractor shall observe international conventions relating to child labor namely the UN Convention No.182 on worst forms of child labor and convention No. 138 on the minimum age for admission to employment.

20. Criminal Act

The Contractor undertakes to comply with all applicable laws and to ensure that it does not engage in any kind of criminal activity including but not limited to bribery, fraud, corruption, terrorism and to maintain ethical business practices as well as not to commit any Prohibited Acts defined as: -

- i) To offer, promise or give any person a financial or other advantage.
- ii) To request, agree to receive or accept any financial or other advantage not expressly provided for as an inducement or a reward for the performance of any function or activity in connection with this Agreement.

BID EVALUATION RATING SCALE

MANDATORY REQUIREMENTS

No		Mandatory Evaluation (YES/NO)
1	Company Registration Certificate – Mandatory	
2	CR12- issued within the last 3 months	
3 4.	Duly filled forms (Organization details, Grounds for Mandatory Rejection, Grounds for Discretionary rejection form, Bid Value, Financial and declaration) Valid Registration with the county government/valid and genuine business permit.	
5.	Valid Registration with (NCA7 and above). (building Works & water works)	
7	Active KRA PIN – With VAT Obligation	
8	Valid Tax Compliance	
9	Copy of ID/ Passport of the directors	
10	Serialization of the Bid – Bidders shall sequentially serialize all pages of the	

Note: Bids that do not include any of the documents listed as mandatory will not be considered for either the technical or financial evaluation.

TECHNICAL ANALYSIS

No.	Description		Score
1	Brief Company Profile with verifiable physic	cal location/address	10
2	List of Key Equipment	Owned (Max 15 marks) 50% Owned – 50% leased (Max - 7) 100% leased (Max. 5 Marks)	20
3	List of Key Personnel	(Degrees- 10, HNDs – 6, Diplomas – 4)	20
4	Number of Years in Operation at least 5 years	s lyr - 2 marks 2yrs- 4 marks 3yrs- 6 marks 4yrs- 8 marks 5yrs & above – 10 marks	10
5	Evidence of past similar works — Contract LPO & Completion certificates.		30

		1 LPO/contracts/completion cert (Max 4 Marks) Note: the contract/LPOs/completion certificate must be readable, signed and stamped by the issuing authority for authentication.	
6		Detailed workplan and methodology	10
	statement	statement: Work plan demonstrating flow of	
		work from inception to site hand over) (Max 3	
		pages)	
i	TOTAL	100	

Note: Bids that do not score 80% or above in the technical analysis will be automatically disqualified and will not be considered for financial evaluation.

FINANCIAL ANALYSIS

No.	Description		Maximum
1	Certified Bank statement for the past six months (Aug 2024 – Feb 2025)	Certified bank statement for 6 months.	25
		Uncertified bank statement -0	
2	Evidence of a Certified letter of credit from the reputable from reputable bank.	Certified letter (signed & stamped) of credit.	25
	TOTAL		50

Note: Bids that do not score 75% or above in the financial analysis shall not be considered for due diligence.

Tender Schedule

Task	Tentative Tender Schedule
Advertising of tender	13 th March 2025
Closing of tender	Wednesday, 26 th March 2025 11:00 am
Opening of tender	Wednesday, 26 th March 2025 11:00 am
Evaluation	27 th to 31 st March 2025
Award	1 st April 2025

MANDATORY QUESTIONNAIRE

A: Organization and Contact Details

Full Name of Organ	aization
Date of Registration	
Registration Certific	
Street	Road
Address	Code
Town	
Email	Telephone No.
PIN No.	
Name of Parent Con	npany
	A Public Limited Company
	A Limited Company
Type of Organizatio	n A Limited Liability Partnership
	Other Partnership
	Sole Trader
	Other (Please Specify)

Name of Owners

Name	ID/Passport No.	Nationality

DETAILS FOR CONTACT PERSON		
	Contact details for enquiries about this PQQ/Business Issues	
Name of Staff		
Address		
Post Code		
Town		
Phone		
Mobile		
Email		

B - Grounds for Mandatory Rejection

Important Notice:

In some circumstances IRK is required by law to exclude you from participating further in a procurement. If you cannot answer 'no' to every question in this section it is very unlikely that your application will be accepted, and you should contact us for advice before completing this form.

Please state 'Yes' or 'No' to each question.

Has your organization or any directors or partner or any other person who has powers of representation, decision or control been convicted of any of the following offences?	Answer
(a) A crime	
(b) Corruption	
(c) The offence of bribery;	
(d) Fraud within the meaning of:	
i) Money laundering	
ii) Any other offence	

Has your organization fulfilled obligations related to the payment of	
social security contributions or the payment of taxes in accordance	
with the legal? Answer with a "Yes" or "No"	

C - Grounds for Discretionary Rejection

Important Notice:

IRK is entitled to exclude you from consideration if any of the following apply but may decide to allow you to proceed further. If you cannot answer 'no' to every question it is possible that your application might not be accepted. In the event that any of the following do apply, please set out (in a separate Annex) full details of the relevant incident and any remedial action taken subsequently. The information provided will be taken into account by IRK in considering whether or not you will be able to proceed any further in respect of this procurement exercise. Please state 'Yes' or 'No' to each question.

Is any of the following true of your organization?	
(a) <u>Is bankrupt</u> or under receivership or bankruptcy restrictions order made against the organization	
(b) <u>Is insolvent</u> ,	
(c) <u>Is</u> the subject of an order by the court winding up otherwise than for the purpose of bona fide reconstruction or amalgamation, or had a receiver, manager or administrator on behalf of a creditor appointed in respect of the company's business or any part thereof or is the subject of similar procedures under the law of any other state?	
Has your organization	
(a) been convicted of a criminal offence relating to the conduct of your business or profession;	
(b) committed an act of grave misconduct in the course of your business or profession:	
(c) failed to fulfil obligations relating to the payment of social security contributions	
(d) failed to fulfil obligations relating to the payment of taxes under the	
(e) been guilty of serious misrepresentation in providing any information required	

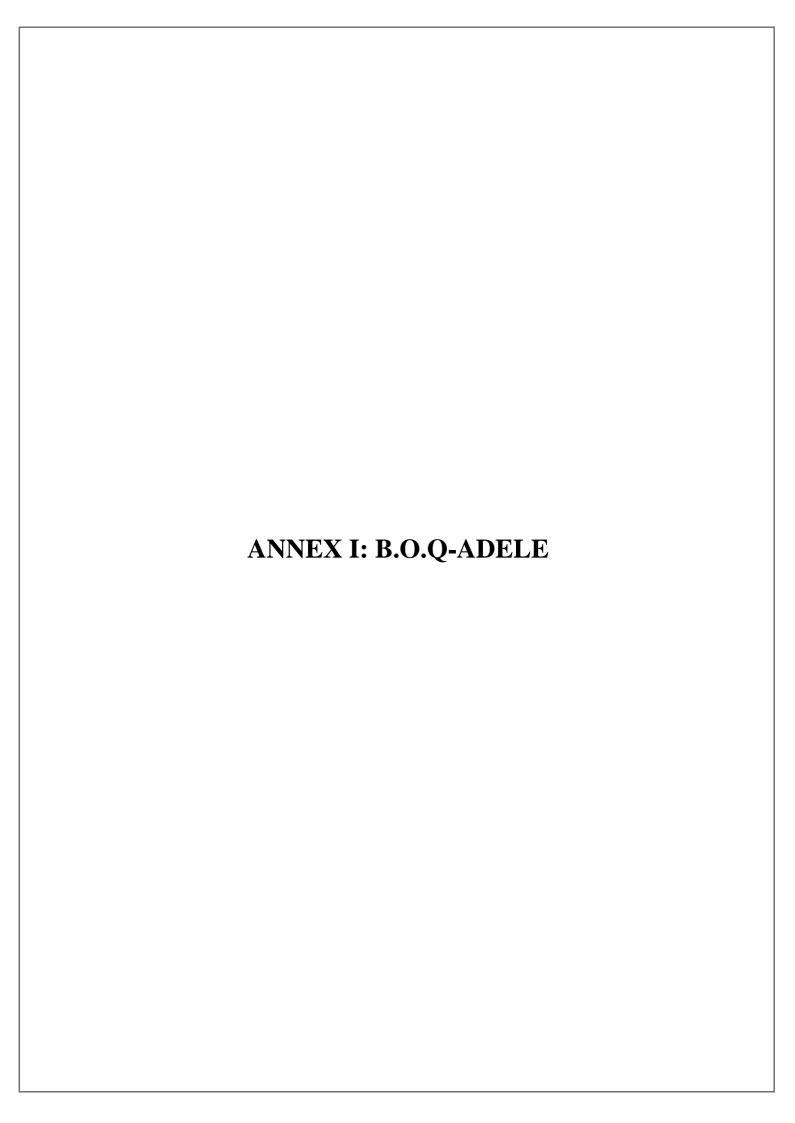
D – Bid Value & Duration of Supply

Bid Value for the Work	Kshs
Payment Terms	
Duration of Delivery	
Remarks	

E - Financial

1	BANK INFORMATION						
1.1	Bank						
	Branch						
	Account Name						
	Account Number						
	Swift Code						
	Letter From Bank Confirming Account & Credit Facility						

\mathbf{F}		Declaration	Declaration
2.	are correct. assess my requirement Contracting relevant qu	at to the best of my knowledge the answers submit I understand that the information will be a organization's suitability to be invited to tender and I am signing on behalf of my organization. Authority may reject this bid if there is a destions fully or if I provide false/misleading nument, I certify that all of the above statements FORM COMPLETED BY	der for Islamic Relief's on. I understand that the failure to answer all information. By signing
2.1	Name:		
2.2	Position:		
2.3	Signature:		
2.4	Date:		
2.5	Stamp:		
Name o	of Bidder:		
Author	rized signature	×	-
Name o	of Authorized	signatory:	_
Function	onal Title:		_
Teleph	one Number:		_
Email A	Address:		_
Date: _	//2025	Officia	l Stamp:



	BOQ FOR BOREHOLE				
	REHABILITATION AND				
	SOLARIZATION WORKS AT				
	ADELE BH-TANA RIVER COUNTY				
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (KSHS)
	ALL PROVISIONAL				
	The contractor to note that the location				
	of the works is in public learning				
	institution thus the works are to be				
	carried out in such a manner that				
	learning is not disrupted				
	All the works to be done by a specialist				
	taking care of the existing borehole.				
	In case of damage arising from the				
	contractor's negligence, necessary				
	repairs shall be done at the cost of the				
	contractor				
	Contractor's mobilization				
1.1	Mobilization and demolition of	Item	1		
	contractor's plant and equipment				
	including but not limited to drilling				
	units, tank erection equipment, test				
	pumping equipment, borehole				
	development equipment, materials,				
	personnel and other				
	required supplies.	_			
1.2	Allow for site clearance and Engineer's	Sum	1		
	inspection to establish the water levels				
	of the borehole				
	Rehabilitation of borehole				
1.4	Carefully remove the defective/broken	No.	1		
	down submersible pump and inspect to				
	establish the extent of the damage,				
	deliver the damaged pump to IRK				
	TANA RIVER OFFICE				
	Inspection and cleaning of steel pipe				
1.5	casing Confully inspect the existing steel pine	T4c···	1		
1.5	Carefully inspect the existing steel pipe	Item	1		
	casing and clean them where necessary				
	as directed by the Engineer				
1.6	De-siltation Allow for de-siltation of the borehole	Itom	1		
1.0		Item	1		
	using special equipment to be approved by the Engineer				
	Disposal of Water				
1.7	Carefully dispose off water arising from	Item	1		
1./	desiltation and other cleaning works	110111	1		
	Total carried forward				
	10iai carrica joi wara			1	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
11171		UNII	Q11	KATE	AMOUNT
	Brought forward				
	Submersible Pump				
1.8	Procure, deliver and install submersible	No.	1		
	pump capable of output of 2 - 5m3 per				
	hour at 110 - 240H with and including				
	all electrical connections				
	Davis and Shirtliff DSD 5/18, 1.5KW				
	and 2.0HP				
1 10	Solar panels Program deliver and install new 15No.	No	1.5		
1.10	Procure, deliver and install new 15No	No.	15		
	solar panels with a capacity 250W as directed by the Engineer, the cost				
	should be inclusive of the solar structre				
	Sunverter				
1.11	Procure, deliver and carefully install	No.	1		
1.11	approved sunverter as per Dayliff	110.	1		
	Sunverter 2 or other equal and				
	approved capable of operating the				
	above specified pump with and				
	including all necessary electrical				
	connections				
	Float switch				
1.12	Provide and install float switch and	No.	1		
	other related accessories as directed				
1.13	Float switch cable	m	200		
	Piping works with and including				
	connections where not listed herein				
	below				
1.14	63mm diameter HDPE pipe, PN 16	m	600		
1.15	PPR Pipe 25mm diameter, PN 12.5	m	350		
	7.1.1.1.0				
	Total carried forward				
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Brought forward				
	HDPE pipe fittings				
1.16	63mm diameter nipple	No.	1		
1.17	Ditto connector	No.	13		
1.18	Reducing socket	No.	1		
1.19	63mm diameter gate valve	No.	1		
1.20	63mm diameter non-return valve	No.	1		
	PPR pipe fittings				
1.21	Taps, pegler lockable taps as directed	No.	3		
1.22	PPR connectors	No.	5		
1.23	T junctions, GI Tee	No.	2		
1.24	Water meter, 1inch	No.	1		
	Maintenance and servicing kit				
	Water testing	1			

1.26	Provide an amount for the supply and installation of 10,000litre water tank at the school, this should include the tand slab and related pipe connection from the borehole and related plumbing works.	No.	1	
1.27	Provide an amount for the construction of 2NO.water point with 5 taps each at Adele primary school and animal water trough at the community point near the kiosk	Sum	1	
	Sub-total 1			
1.28	Add Preliminaries associated with the works inclusive of the Performance Bond, Insurance for the works Etc Sub-total 2			
	2			
	Add 16% VAT			
	TOTAL (KSHS)			

	BOQ FOR THE CONSTRUCTION OF A WATER KIOSK AT ADELE	UNIT	QT Y	RAT E KSH S	AMO UNT
	BILL NO: CONSTRUCTION OF WATER KIOSK WITH REINFORCED PLATFORM FOR TANK				
	A. SUBSTRUCTURES				
	ELEMENT NO. 01-SUBSTRUCTURE				
	(ALL PROVISIONAL)				
A	Excavate oversite to remove vegetable soil average 150mm deep; wheel and deposit on site n.e. 100M away in permanent spoils heaps	SM	20		
В	Ditto but to a depth of 300mm	CM	1.8		
С	Excavate for pad foundation and strip footing not exceeding 1000 mm deep.	CM	25		
	<u>Disposal</u>				
D	Cart away excess excavated material to spoil	CM	10		
	<u>Hardcore</u>				
Е	250mm thick filling: deposit, spread, level and compact: to receive blinding	CM	3		
F	50mm murram blinding to surface of hardcore.	SM	6		
	Anti-Termite Treatment				
G	Chemical anti-termite treatment executed by Rentokil Laboratoties Limited or equal and approved pest control firm under a ten year gurantee, applied to surface of excavation and floor	SM	12		
	Damp-Proof Membrane				
Н	500mm Gauge polythene damp-proof membrane laid on blinded hardcore with 100mm folded side and end laps (measured net-allow for laps)	SM	12		

		Plain Concrete 1:4:8 mix in:			
	G	50 mm blinding bed under strip footing	CM	6	
		Reinforced Concrete 1:2:4- 20mm gauge mix in			
	Н	150 mm floor slab	SM	12	
	I	300 mm thick Strip Footing	CM	2.1	
	J	600 x150mm thick pavement round the perimeter walling	SM	1.0	
		Reinforcement			
		High Tensile Steel Reinforcement to B.S. 4483			
	K	Y12	NO	6	
	L	Y10	NO	4	
	M	Y8	NO	4	
		Mesh Fabric Reinforcement to B.S.4483			
	N	Mesh reinforcement reference A 142 weighing 2.22kg per square metre laid in bed with 300mm side and end laps (Measured net allow for laps)	SM	17	
		MASONRY			
	О	Medium quarry dressed stone walling in cement and sand (1:3)mortar:20 gauge x 25mm wide hoop iron reinforcement and column-wall ties in every alternate course: to			
	P	200mm walling in Foundation	SM	15	
		Hessian Based Bituminous Felt Damp-Proof course to B.S.743 type 4A and setting in cement and sand mortar			
	Q	under 200mm walls	L.M	10	
		TOTAL ELEMENT 01			
	IT E	DESCRIPTION	UNIT	QT Y	
	M				
		ELEMENT NO-02			
		CONCRETE WORK AND WALLING			
		Reinforced Concrete 1:2:4- 20mm gauge mix in			
	A	Rings Beams;450x200	CM	0.9	
	В	150mm roof slab and fetching bay	CM	1.8	
		Sawn formwork to			
	С	sides and soffits of beams	SM	9.7	
	D	Ditto but to sides and of columns	SM	19. 2	
	Е	Ditto but including props beneath the roof slab and fetching bay	SM	12	
_		Reinforcement			
		High Tensile Steel for columns, ring beam and top			
		slab Reinforcement to B.S. 4483			
	F	slab Reinforcement to B.S. 4483 Y16mm Bars	NO	12	

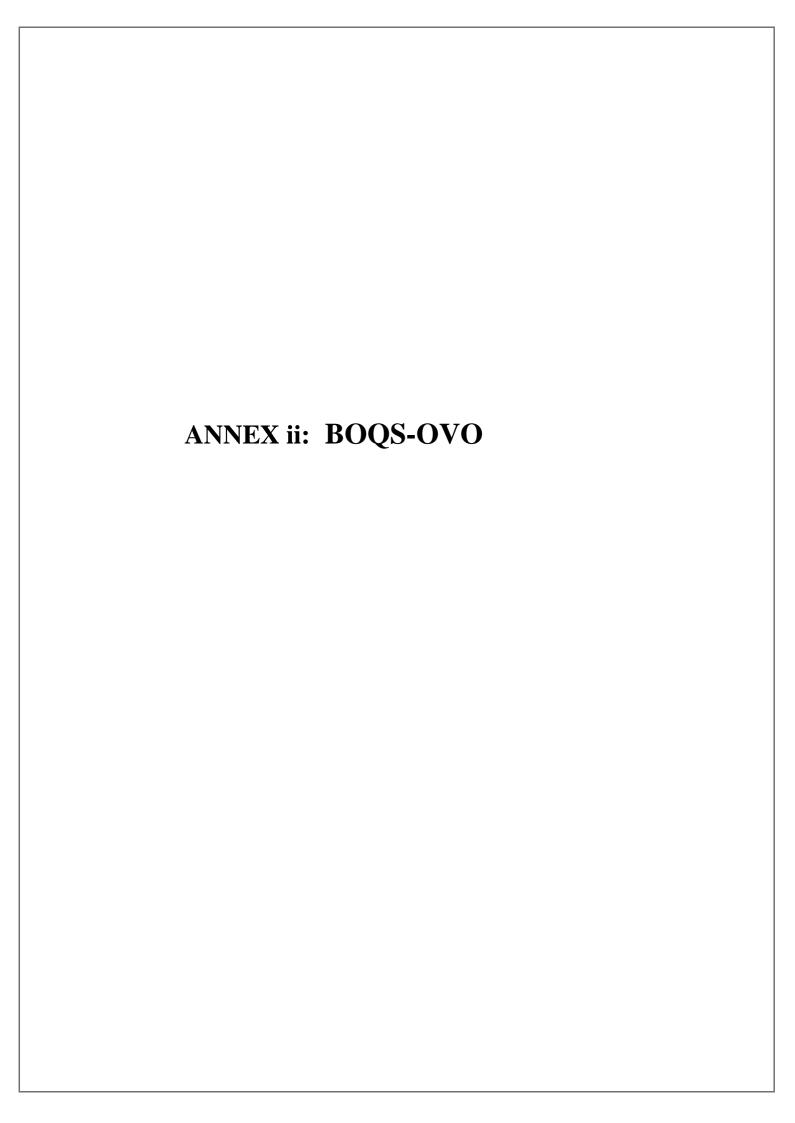
Н	Y12mm Bars	NO	15		
	Walling				
	Medium quarry dressed stone walling in cement and				
	sand (1:3)mortar:20 gauge x 25mm wide hoop iron				
	reinforcement and column-wall ties in every				
	alternate course: to				
I	200mm walling	SM	25		
	TOTAL ELEMENT 02				
IT	DESCRIPTION	UNIT	QT Y	RAT E KSH	AMO UNT KSHS
E M	BESCHI TION			S	KSHS
	ELEMENT NO-03				
	DISPOSAL				
A	Plastic downpipes;75mm diameter	L.M	6		
В	10,000 litres plastic Kentank tank or equivalent and approved by IRK Engineer, and fully branded with irk artwork as directed	No	1		
	TOTAL ELEMENT 03				
		UNIT	QT Y	RAT E	AMO UNT
IT E M	DESCRIPTION			KSH S	KSHS
	ELEMENT NO. 04				
	<u>FINISHINGS</u>				
	Cement and Sand (1:4) Screed and Paving				
	FLOOR FINISHES				
	Cement and sand (1:4) paving: steel trowelled: on concrete				
A	.40mm thick floors to receive tiles	SM	10		
В	Tiling on the floor including water fetching area upto the bay deck as approved by RE	SM	20		
	12mm Two Coats Lime Plaster with stel Trowel Finished to:				
С	Internal walls and slab soffit	SM	35		
D	Extenal walls including keying	SM	10		
	TOTAL ELEMENT 04				
		UNIT	QT Y	RAT E	AMO UNT
IT E M	DESCRIPTION			KSH S	KSHS
141	ELEMENT NO. 5				
1	1	1	1	1	1

	Steel Door				
A	Standard single leaf steel door to the satisfaction of the RE	NO.	1		
	TOTAL ELEMENT 05				
		UNIT	QT Y	RAT E	AMO UNT
IT E M	DESCRIPTION			KSH S	KSHS
	EL EMENT NO C				
	ELEMENT NO.6				
	WINDOWS	770			
A	2000x1200mm double leaf steel window as directed by RE	NO	1		
	TOTAL ELEMENT 06				
		UNIT	QT Y	RAT E	AMO UNT
IT E M	DESCRIPTION			KSH S	KSHS
	ELEMENT NO 07				
	ELEMENT NO.07				
	PAINTING AND DECORATING		-		
	Prepare and apply three coats plastic emulsion paint to:				
	<u> — </u>				
	<u>Internally</u>	CM	4.5		
A.	Plastered walls	SM	45		
В	Ditto but to the doors and window surfaces as Directed by RE	SM	10		
	TOTAL ELEMENT 07				
IT E M	DESCRIPTION	UNIT	QT Y	RAT E	AMO UNT
171	ELEMENT NO.08			KSH	OIVI
	PLUMBING WORKS			S	KSHS
A	32mm thick floors screed	SM	11.6		Itsiis
	Plumbing (Supply and fix the following)	21/1	1110		
В	3/4" GI pipe	No.	1		
C	3/4" Gate Valve (Peggler)	No.	1		
D	3/4" Bend	No.	3		
Е	³ / ₄ " Elbow	No.	4		
F	³ / ₄ Tee equal	No.	3		
	3/4" Union	No.	1		
G					
H	3/4" Stop Cork (Peggler)	No.	3		

J	³ / ₄ " Sockets	No.	2	
K	PVC end-caps 2"	No.	2	
L	PVC end-caps 1½"	No.	2	
M	PVC Tee equal 2"	No.	2	
N	Ditto ½"	No.	2	
О	Reducing socket 2" x ¾" PVC	No.	2	
P	Ditto 1 ½" x ¾"	No.	2	
Q	PVC Adapter 3/4"	No.	2	
	TOTAL ELEMENT 08			
	SUMMARY			
				AMO UNT
	ELEMENT NO.			KSHS
	1. SUBSTRUCTURE			
	2. CONCRETE WORK AND WALLING			
	3. ROOFING AND RAINWATER DISPOSAL			
	4. FINISHING			
	5. DOORS			
	6. WIDOWS			
	7. PAINTING AND DECORATION			
	8. PLUMBING WORKS			
	SUB TOTAL			
	TOTAL CARRIED TO SUMMARY			

				KSHS
	FENCING -ADELE			
A.	Clearing the site of bushes/trees	SM	500	
В	Excavate for fencing poles bases from existing ground level and not exceeding 1.50m deep.(225 x 225x500mm deep holes)	NO.	38	
	Concrete Work			
	Mass concrete 1:4: 8-			
С	50 mm blinding bed under holes for fencing posts	CM	0.2	
	_			
	Reinforced Concrete 1:2:4- 20mm gauge mix in			
D	225x225x450 Bases for Angle columns sections	CM	1.5	
	MILD STEEL TO B.S. 449			
	Structural steel welded & Bolted joints			
Е	75x75x4.5mm Angle column section (Length 2350mm spaced at 3 m c/c)	NO	48	

G	75x75x5.0mm angle section for bracing at corners and at every 30m span (Length 3600mm)	NO	12	
	GATE			
K	Excavate for sides columns poles bases from existing ground level and not exceeding 1.50m deep.(225 x 225x500mm deep holes)	NO.	4	
	Concrete Work			
	Mass concrete 1:4: 8-			
M	50 mm blinding bed under holes for fencing posts	CM	0.1	
N	Reinforced Concrete 1:2:4- 20mm gauge mix in			
	225x225x450 Bases for SHS columns	CM	0.1	
	MILD STEEL TO B.S. 449			
	Structural steel welded & Bolted joints			
О	100x100x4.0mm SHS column (Length 2000mm)	NO.	3	
P	75x75x3.0mm SHS	LM	28.5	
Q	50x50x3.0mm SHS	LM	21	
	FENCING WIRE			
	Barbed wire			
R	Supply and fix Ngombe Double strand Barbed wire 610mtrs, around the perimeter; or equivalent	NO	2	
	CHAIN LINK			
S	Supply and fix 3.0mm chain link twisted 3 times at the ends	SM	220	
R	Bind the chain with a binding wire	ITEM	2	
	Total carried to summary			



	BOQ FOR BOREHOLE REHABILITATION AND SOLARIZATION WORKS AT OVO BH-TANA RIVER COUNTY				
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (KSHS)
	ALL PROVISIONAL				
	The contractor to note that the location				
	of the works is in public learning				
	institution thus the works are to be				
	carried out in such a manner that				
	learning is not disrupted				
	All the works to be done by a specialist				
	taking care of the existing borehole.				
	In case of damage arising from the				
	contractor's negligence, necessary				
	repairs shall be done at the cost of the				
	<u>contractor</u> <u>Contractor's mobilization</u>				
1.1	Mobilization and demolition of	Item	1		
1.1	contractor's plant and equipment	Helli	1		
	including but not limited to drilling				
	units, tank erection equipment, test				
	pumping equipment, borehole				
	development equipment, materials,				
	personnel and other				
	required supplies.				
1.2	Allow for site clearance and Engineer's	Sum	1		
	inspection to establish the water levels				
	of the borehole				
	Rehabilitation of borehole				
1.4	Carefully remove the defective/broken	No.	1		
	down submersible pump and inspect to				
	establish the extent of the damage,				
	deliver the damaged pump to IRK				
	TANA RIVER OFFICE				
	Inspection and cleaning of steel pipe casing				
1.5	Carefully inspect the existing steel pipe	Item	1		
	casing and clean them where necessary				
	as directed by the Engineer				
	<u>De-siltation</u>				
1.6	A11 C 1 11 C 1 1 1 1	T	1		
1.6	Allow for de-siltation of the borehole	Item	1		
	using special equipment to be approved				
	by the Engineer				
		L			

	Disposal of Water				
1.7	Carefully dispose off water arising from	Item	1		
	desiltation and other cleaning works				
	Total carried forward				
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Brought forward				
	Submersible Pump				
1.8	Procure, deliver and install submersible pump capable of output of 2 - 5m3 per hour at 110 - 240H with and including all electrical connections Davis and Shirtliff DSD 5/18, 1.5KW and 2.0HP	No.	1		
	Solar panels				
1.10	Procure, deliver and install new 15No solar panels with a capacity 250W as directed by the Engineer ,the cost should be inclusive of the solar structre	No.	15		
1.11	Sunverter Procure, deliver and carefully install	No.	1		
	approved sunverter as per Dayliff Sunverter 2 or other equal and approved capable of operating the above specified pump with and including all necessary electrical connections	110.			
1 10	Float switch	2.7	1		
1.12	Provide and install float switch and other related accessories as directed	No.	1		
1.13	Float switch cable	m	200		
	Piping works with and including connections where not listed herein below				
1.14	63mm diameter HDPE pipe, PN 16	m	600		
1.15	PPR Pipe 25mm diameter, PN 12.5 Total carried forward	m	350		
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Brought forward				
	HDPE pipe fittings		1		
1.16	63mm diameter nipple	No.	1		
1.17	Ditto connector	No.	13		
1.18	Reducing socket	No.	1		
1.19	63mm diameter gate valve	No.	1		
1.20	63mm diameter non-return valve PPR pipe fittings	No.	1		
	PPR DIDA HUDAGO	1	1	i i	1

1.22	PPR connectors	No.	5	
1.23	T junctions, GI Tee	No.	2	
1.24	Water meter, linch	No.	1	
	Maintenance and servicing kit			
	Water testing			
1.26	Collect water samples and carry out full water quality analysis (chemical and bacteriological analysis) in a reputable laboratory acceptable to the Engineer and submit water quality test report.	No.	1	
	Testing and commissioning			
1.27	Provide an amount for the construction of water points at ovo primary school and animal water trough at the community point near the kiosk	Sum	1	
	Sub-total 1			
1.28	Add Preliminaries associated with the works inclusive of the Performance Bond, Insurance for the works Etc Sub-total 2			
	Add 16% VAT			
	TOTAL (KSHS)			

2No.	TWO DOOR VIP PIT LATRINE AT (OVO PR	IMARY S	CHOOL 1	<u> TANA</u>			
RIVER COUNTY								
Item	Description	Qty	Unit	Rate	Total			
No.								
	SUBSTRUCTURE (Provisional)							
	Excavation							
	Excavation including maintaining and							
	supporting sides and keeping free							
	from water, mud and fallen materials							
	by bailing, pumping or otherwise							
A	Prepare site by stripping top 200 mm	M2	40.0					
	of soil to remove all debris including							
	sand (if any) from site and carting							
	away spoil	1.62						
В	Excavate for foundation strip	M3	72.0					
	commencing at stripped levels depth							
	not exceeding 1.50m deep	M3						
C	Pit excavation commencing at	IVI3	36.0					
	stripped levels depth not exceeding							
	1.50m deep	M3	110					
D	Ditto 1.50 - 3.00 metres deep		14.0					
E	Ditto 3.00 - 4.50 metres deep	M3	14.0					
	(Optional)	M3						
F	Ditto 4.50 - 6.00 metres deep	IVIS	14.0					
	(Optional)	M3						
G	Extra-over for excavation in rock		5.0					
Н	Remove surplus excavated material	M3	66.0					
	from site	142						
I	Backfill around foundation	M3	64.0					

	T-111			T	
	Filing	M3	11.0		
J	300 mm thick approved hardcore	MIS	11.0		
	filling spread, well rammed and				
	compacted in 150mm layers to				
	receive concrete surface bed				
	Insitu concrete: class 15: mix 1:3:6	142			
K	50mm blinding layer under	M2	51.0		
	foundations	1.60			
L	50mm blinding layer on hardcore	M2	42.0		
	surfaces				
	Total from Substructures Collection				
	1				
	Concrete work				
	Reinforced Concrete class 15	1.62			
Α	Strip foundation	M3	4.3		
	Reinforced Concrete class 25				
В	100mm thick floor slab with surface	M2	52.0		
	steel trowelled smooth				
С	Allow for pit/squat hole in 100mm	No	2.0		
	thick floor slab				
	Reinforcement				
D	Reinforcement bars (asorted steel) as	Kg	400.0		
	shown on drawings				
Е	Mesh fabric reinforcement ref. No.	m2	84.0		
	A142 laid in floor slab with minimum				
	150 mm side allowance				
	Sawn formwork				
F	Formwork to edges of floor slab girth	M	44.0		
	over 75mm but not exceeding 150mm				
G	Formwork to edges of strip footing	M	66.0		
	girth over 75mm but not exceeding				
	150mm				
Н	Formwork to edges of strip footing	M	62.0		
	girth over 150mm but not exceeding				
	2250mm				
	Walling	1.60			
I	400mm Thick coral stone retaining	M2	25.0		
	wall in cement and sand mortar (1:3)	1.60			
J	300mm Thick coral stone foundation	M2	33.0		
	walling in cement and sand mortar				
	(1:3)	1/2			
K	150mm thick masonry wall	M2	4.0		
L	One layer 1000gauge polythene sheet	M2	40.0		
	damp proof membrane under beds:				
	300mm laps				
M	200mm wide Bituminous felt damp-	M	40.0		
	proof course				
	Total from Substructures Collection				
	2				
	Steps				
	Concrete work				
	Reinforced Concrete class 25				
Α	Treads, 300 mm wide	M	10.0		

_	1-1 1-0 111	T		
В	Risers, 150 mm high	M M2	9.0	
С	Open string	1	0.9	
D	Waist	M2	0.6	
	Sawn formwork			
Е	Risers: girth over 75mm but not	M	8.0	
	exceeding 150mm	110		
F	Open string	M2	0.8	
G	Waist	M2	0.6	
	Cement and sand mortar (1:4)			
	trowelled beds: on concrete: to			
Н	Treads, 300 mm wide	M	4.0	
I	Risers, 150 mm high	M	4.0	
J	Open string	M2	0.6	
K	Waist	M2	0.4	
	Reinforcement			
P	High tensile reinforcement bars in	KG	180.0	
	assorted sizes			
	Total page 3 to Substructures			
	Collection			
	<u>Plinths</u>			
Α	15mm thick cement sand rendering	M2	10.0	
	(1:3) to plinths	1.0		
В	Prepare and apply three coats black	M2	15.0	
	bituminous paint to rendered plinths			
	externally			
	Total from Substructures Collection			
	3			
	SUBSTRUCTURES			
	COLLECTION			
	Total from Collection 1			
	Total from Collection 2			
	Total from Collection 3			
	SUBSTRUCTURES SUB TOTAL			
	TO SUMMARY			
	SUPERSTRUCTURES			
	Walling	M2	00.0	
A	150mm Thick load bearing solid	1712	90.0	
	concrete block walling	N.T.	4.0	
	200mm deep x 400mm wide vent	No	4.0	
	block			_
D	Wall Coping	M	10.0	_
В	Precast concrete 600 x 300 x 50 mm	M	18.0	
	Thick twice weathered and throated			
	coping jointed and pointed in cement and sand mortar			
	and sand mortar Concrete Work			
	Vibrated reinforced concrete class 25			
	(1:1.5:3) with 20mm maximum			
C	aggregate as described in: Lintels	M3	0.4	
			0.4	+
	Reinforcement			

D					
E Ditto but 10mm	D		Kg	20.0	
Sawn Fornwork to:			T.7	22.0	
F Sides and soffits of lintels Roofing Roof Structure	E		Kg	22.0	
Roofing Roof Structure Sawn celcured cypress timber as described in: G 200mm x 15mm Fascia Board M 29.0 H 100x50mmRafters M 22.0 I 100mm x 50mm wall plate M 24.0 J 50 x 50 Purlins M 40.0 Roof Covering K 0.5mm color coated Fiberglass corrugated roofing sheets screwed to purlins - Blue in color Total from Superstructures Collection 4 Painting and Decorating L Knot prime stop and apply two undercoats and one gloss finishing coat oil paint to fascia board 200- 300 mm wide Doors A 45mm thick Match boarded timber single door, overall size 900x 2100mm high Wrot cypress Ist grade B 150x50mm frame two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4) trowelled beds: on concrete: to A 32mm floors Trowelled finished	т.		M2	2.2	
Roof Structure Sawn celcured cypress timber as described in:	F		IVIZ	2.2	
Sawn celcured cypress timber as described in: G					
described in: G					
G 200mm x 15mm Fascia Board M 29.0 H 100x50mmRafters M 22.0 I 100mm x 50mm wall plate M 24.0 J 50 x 50 Purlins M 40.0 Roof Covering K 0.5mm color coated Fiberglass corrugated roofing sheets screwed to purlins - Blue in color Total from Superstructures Collection 4 Painting and Decorating L Knot prime stop and apply two undercoats and one gloss finishing coat oil paint to fascia board 200- 300 mm wide Doors A 45mm thick Match boarded timber single door, overall size 900x 2100mm high Wrot cypress 1st grade B 150x50mm frame two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished		* *			
H 100x50mmRafters M 22.0 I 100mm x 50mm wall plate M 24.0 J 50 x 50 Purlins M 40.0 Roof Covering			2.4	20.0	
I 100mm x 50mm wall plate M 24.0 J 50 x 50 Purlins M 40.0 Roof Covering K 0.5mm color coated Fiberglass corrugated roofing sheets screwed to purlins - Blue in color Total from Superstructures Collection 4 Painting and Decorating L Knot prime stop and apply two undercoats and one gloss finishing coat oil paint to fascia board 200- 300 mm wide Doors A 45mm thick Match boarded timber single door, overall size 900x 2100mm high Wrot cypress 1st grade B 150x50mm frame two labours M 20.0 plugged screwed and pellated C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished					
Jobson Solution			1		
Roof Covering K 0.5mm color coated Fiberglass corrugated roofing sheets screwed to purlins - Blue in color					
K 0.5mm color coated Fiberglass corrugated roofing sheets screwed to purlins - Blue in color Total from Superstructures Collection 4 Painting and Decorating L Knot prime stop and apply two undercoats and one gloss finishing coat oil paint to fascia board 200- 300 mm wide Doors A 45mm thick Match boarded timber single door, overall size 900x 2100mm high Wrot cypress 1st grade B 150x50mm frame two labours plugged screwed and pellated C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 25.0	J		M	40.0	
Corrugated roofing sheets screwed to purlins - Blue in color Total from Superstructures Collection 4 Painting and Decorating L Knot prime stop and apply two undercoats and one gloss finishing coat oil paint to fascia board 200- 300 mm wide Doors A 45mm thick Match boarded timber single door, overall size 900x 2100mm high Wrot cypress 1st grade B 150x50mm frame two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished	**		M2	24.0	
Total from Superstructures Collection 4 Painting and Decorating L Knot prime stop and apply two undercoats and one gloss finishing coat oil paint to fascia board 200- 300 mm wide Doors A 45mm thick Match boarded timber single door, overall size 900x 2100mm high Wrot cypress 1st grade B 150x50mm frame two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 G Rubber door stop H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M 26.0 M 26.0 M 26.0 M 26.0 M 20.0 J 25.0	K		IVIZ	24.0	
Total from Superstructures Collection 4 Painting and Decorating L Knot prime stop and apply two undercoats and one gloss finishing coat oil paint to fascia board 200- 300 mm wide Doors A 45mm thick Match boarded timber single door, overall size 900x 2100mm high Wrot cypress 1st grade B 150x50mm frame two labours plugged screwed and pellated C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished					
Collection 4 Painting and Decorating L Knot prime stop and apply two undercoats and one gloss finishing coat oil paint to fascia board 200- 300 mm wide Doors A 45mm thick Match boarded timber single door, overall size 900x 2100mm high Wrot cypress 1st grade B 150x50mm frame two labours plugged screwed and pellated C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 25.0		purlins - Blue in color			
Collection 4 Painting and Decorating L Knot prime stop and apply two undercoats and one gloss finishing coat oil paint to fascia board 200- 300 mm wide Doors A 45mm thick Match boarded timber single door, overall size 900x 2100mm high Wrot cypress 1st grade B 150x50mm frame two labours plugged screwed and pellated C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 25.0		Total from Superstructures			
L Knot prime stop and apply two undercoats and one gloss finishing coat oil paint to fascia board 200- 300 mm wide Doors A 45mm thick Match boarded timber single door, overall size 900x 2100mm high Wrot cypress 1st grade B 150x50mm frame two labours plugged screwed and pellated C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished					
L Knot prime stop and apply two undercoats and one gloss finishing coat oil paint to fascia board 200- 300 mm wide Doors A 45mm thick Match boarded timber single door, overall size 900x 2100mm high Wrot cypress 1st grade B 150x50mm frame two labours plugged screwed and pellated C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished		Painting and Decorating			
undercoats and one gloss finishing coat oil paint to fascia board 200- 300 mm wide Doors A 45mm thick Match boarded timber No 3.5 single door, overall size 900x 2100mm high Wrot cypress 1st grade B 150x50mm frame two labours M 20.0 plugged screwed and pellated C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished	L		M	26.0	
coat oil paint to fascia board 200- 300 mm wide Doors A 45mm thick Match boarded timber single door, overall size 900x 2100mm high Wrot cypress 1st grade B 150x50mm frame two labours M 20.0 plugged screwed and pellated C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 25.0					
Doors					
A 45mm thick Match boarded timber single door, overall size 900x 2100mm high Wrot cypress 1st grade B 150x50mm frame two labours M 20.0 plugged screwed and pellated C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 25.0					
single door, overall size 900x 2100mm high Wrot cypress 1st grade B 150x50mm frame two labours M 20.0 plugged screwed and pellated C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 25.0		Doors			
2100mm high Wrot cypress 1st grade	A	45mm thick Match boarded timber	No	3.5	
Wrot cypress 1st grade B 150x50mm frame two labours plugged screwed and pellated C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 25.0		single door, overall size 900x			
B 150x50mm frame two labours plugged screwed and pellated C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M 20.0 A 20.0		2100mm high			
plugged screwed and pellated C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 25.0		Wrot cypress 1st grade			
C 50x25mm architrave two labours M 20.0 D 25x15mm quadrant one labour M 20.0 Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M 20.0 M 20.0 A 20.0 A 20.0 M 20.0 A 20.0	В	150x50mm frame two labours	M	20.0	
D 25x15mm quadrant one labour Supply and fix the following ironmongery to timber with matching screws E Stainless steel hinges F Tower bolt lock G Rubber door stop H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M 20.0 M 20.0 No 4.0 H Pairs 6.0 No 7.0 18.0 M2 18.0		plugged screwed and pellated			
Supply and fix the following ironmongery to timber with matching screws D.0	C	50x25mm architrave two labours	M	20.0	
ironmongery to timber with matching screws E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished Pairs 6.0 No 7.0 18.0 M2 18.0	D	25x15mm quadrant one labour	M	20.0	
E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished		Supply and fix the following		0.0	
E Stainless steel hinges Pairs 6.0 F Tower bolt lock No 7.0 G Rubber door stop No 4.0 H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished Pairs 6.0 No 7.0 18.0 18.0 18.0 A 25.0		ironmongery to timber with matching			
F Tower bolt lock G Rubber door stop H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished No 7.0 18.		screws			
G Rubber door stop H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished No 4.0 18.0	E	Stainless steel hinges	Pairs	6.0	
H Prepare and apply two undercoats and one finishing coat oil paint to timber door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 18.0 18.0 A 25.0	F	Tower bolt lock	No	7.0	
Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished 18.0 18.		Rubber door stop		4.0	
door - Blue in Color Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 25.0	Н	Prepare and apply two undercoats and	M2	18.0	
Total from Superstructures Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 25.0		one finishing coat oil paint to timber			
Collection 5 Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 25.0		door - Blue in Color			
Finishes Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 25.0		Total from Superstructures			
Floor Finishes Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 25.0		Collection 5			
Cement and sand mortar (1:4)trowelled beds: on concrete: to A 32mm floors Trowelled finished M2 25.0		Finishes			
A 32mm floors Trowelled finished M2 25.0		Floor Finishes			
A 32mm floors Trowelled finished M2 25.0		Cement and sand mortar			
A 32mm noors frowened missied 23.0		(1:4)trowelled beds: on concrete: to			
B 100mm diameter Heavy duty uPVC No	A	32mm floors Trowelled finished	M2	25.0	
	В	100mm diameter Heavy duty uPVC	No		
soil and vent pipe 3000mm high		soil and vent pipe 3000mm high		2	
fastened to wall with plastic clips at					
400c/c with wire grating tied to top of		400c/c with wire grating tied to top of			
pipe		pipe			

	Wall Finishes		0.0	
	15mm cement and sand (1:4)		0.0	
	backing; steel trowelled finish			
D	Walls internally	M2	96.0	
	12mm lime plaster: steel trowelled			
	finish: on concrete, block work or			
	stonework: to			
F	Walls externally	M2	40.0	
	Prepare and apply three coats plastic			
	emulsion paint to:			
G	Walls externally	M2	40.0	
Н	Extra over keying	M2	12.0	
J	Provide branding and metallic	ITEM	1	
	artwork with Islamic Relief Logo and			
	Project details			
	Total from Superstructures			
	Collection 6			
	<u>SUPERSTRUCTURE</u>			
	COLLECTION			
	Total from page 4			
	Total from page 5			
	Total from page 6			
	SUPERSTRUCTURE SUB TOTAL			
	TO SUMMARY			
	SUMMARY			
	(1) SUBSTRUCTURE			
	(2) SUPERSTUCTURE			
	Total			
	ADD VAT 16%			
	GRAND TOTAL			

	BOQ FOR THE CONSTRUCTION OF A WATER KIOSK AT OVO	UNI T	QT Y	RATE KSHS	AMOUNT
	BILL NO: CONSTRUCTION OF WATER KIOSK WITH REINFORCED PLATFORM FOR TANK				
	A. <u>SUBSTRUCTURES</u>				
	ELEMENT NO. 01-SUBSTRUCTURE				
	(ALL PROVISIONAL)				
A	Excavate oversite to remove vegetable soil average 150mm deep; wheel and deposit on site n.e. 100M away in permanent spoils heaps	SM	12		
В	Ditto but to a depth of 300mm	CM	1.8		
С	Excavate for pad foundation and strip footing not exceeding 1000 mm deep.	CM	25		
	<u>Disposal</u>				
D	Cart away excess excavated material to spoil	CM	10		
	<u>Hardcore</u>				
Е	250mm thick filling: deposit, spread, level and compact: to receive blinding	CM	3		
F	50mm murram blinding to surface of hardcore.	SM	6		

	Anti-Termite Treatment			
G	Chemical anti-termite treatment executed by Rentokil	SM	12	
	Laboratoties Limited or equal and approved pest control			
	firm under a ten year gurantee, applied to surface of			
	excavation and floor			
	<u>Damp-Proof Membrane</u>			
Н	500mm Gauge polythene damp-proof membrane laid on	SM	12	
	blinded hardcore with 100mm folded side and end laps			
	(measured net-allow for laps) Plain Concrete 1:4:8 mix in:			
G	50 mm blinding bed under strip footing	CM	6	
G		CIVI	0	
Н	Reinforced Concrete 1:2:4- 20mm gauge mix in 150 mm floor slab	SM	12	
I	300 mm thick Strip Footing	CM	2.1	
J	600 x150mm thick pavement round the perimeter walling	SM	1.0	
	ovo kravnimi tinek pavement round the perimeter wanning	DIVI	8	
	Reinforcement			
	High Tensile Steel Reinforcement to B.S. 4483			
K	<u>Y12</u>	NO	6	
L	Y10	NO	4	
M	Y8	NO	4	
	Mesh Fabric Reinforcement to B.S.4483			
N	Mesh reinforcement reference A 142 weighing 2.22kg per	SM	17	
	square metre laid in bed with 300mm side and end laps			
	(Measured net allow for laps)			
	MASONRY			
О	Medium quarry dressed stone walling in cement and sand			
	(1:3)mortar:20 gauge x 25mm wide hoop iron			
	reinforcement and column-wall ties in every alternate			
	course: to			
P	200mm walling in Foundation	SM	15	
	Hessian Based Bituminous Felt Damp-Proof course to			
	B.S.743 type 4A and setting in cement and sand			
	<u>mortar</u>			
Q	under 200mm walls	L.M	10	
	TOTAL ELEMENT 01			
	DESCRIPTION	UNI	QT	
ITE		T	Y	
M	EL EMENTENIO AS	1		
	ELEMENT NO-02	-		
	CONCRETE WORK AND WALLING			
	Dainformed Compute 1-2-4 20	-		
	Reinforced Concrete 1:2:4- 20mm gauge mix in	CM	0.0	
A	Rings Beams;450x200	CM	0.9	
В	150mm roof slab and fetching bay	CM	1.8	
	Sawn formwork to	63.5	0.5	
C	sides and soffits of beams	SM	9.7	

D	Ditto but to sides and of columns	SM	19. 2		
Е	Ditto but including props beneath the roof slab and	SM	12		
	fetching bay				
	Reinforcement				
	High Tensile Steel for columns, ring beam and top slab Reinforcement to B.S. 4483				
-		NO	10		
F	Y16mm Bars	NO	12		
G	Y10mm Bars	NO	16		
H	Y12mm Bars	NO	15		
	Walling				
	Medium quarry dressed stone walling in cement and sand (1:3)mortar:20 gauge x 25mm wide hoop iron reinforcement and column-wall ties in every alternate course: to				
I	200mm walling	SM	25		
	TOTAL ELEMENT 02				
		UNI	QT	RATE	AMOUNT
ITE M	DESCRIPTION	T	Y	KSHS	KSHS
	ELEMENT NO-03				
	DISPOSAL				
A	Plastic downpipes;75mm diameter	L.M	6		
В	10,000 litres plastic Kentank tank or equivalent and approved by RE	No	1		
	TOTAL ELEMENT 03				
		UNI	QT	RATE	AMOUNT
ITE M	DESCRIPTION	T	Y	KSHS	KSHS
	ELEMENT NO. 04				
	<u>FINISHINGS</u>				
	Cement and Sand (1:4) Screed and Paving				
	FLOOR FINISHES				
	Cement and sand (1:4) paving: steel trowelled: on concrete				
A	.40mm thick floors to receive tiles	SM	10		
В	Tiling on the floor including water fetching area upto the bay deck as approved by RE	SM	20		
	12mm Two Coats Lime Plaster with stel Trowel Finished to:				
С	Internal walls and slab soffit	SM	35		
D	Extenal walls including keying	SM	10		
	TOTAL ELEMENT 04				
		UNI	QT	RATE	AMOUNT
ITE M	DESCRIPTION	T	Y	KSHS	KSHS
	ELEMENT NO. 5				

	DOORS				
	Steel Door				
A	Standard single leaf steel door to the satisfaction of the RE	NO.	1		
	TOTAL ELEMENT 05				
		UNI	QT	RATE	AMOUNT
ITE M	DESCRIPTION	T	Y	KSHS	KSHS
	ELEMENT NO.6				
	WINDOWS				
A	2000x1200mm double leaf steel window as directed by RE	NO	1		
	TOTAL ELEMENT 06				
		UNI	QT	RATE	AMOUNT
ITE M	DESCRIPTION	T	Y	KSHS	KSHS
	ELEMENT NO.07				
	PAINTING AND DECORATING				
	Prepare and apply three coats plastic emulsion paint				
	<u>to:</u>				
	<u>Internally</u>				
A.	Plastered walls	SM	45		
В	Ditto but to the doors and window surfaces as Directed by RE	SM	10		
	TOTAL ELEMENT 07				
ITE	DESCRIPTION	UNI	QT	RATE	AMOUNT
M	ELEMENT NO 00	T	Y	KSHS	
	ELEMENT NO.08 PLUMBING WORKS	-			NCIIC
٨	32mm thick floors screed	SM	11.		KSHS
A	32mm thick floors screed	SIVI	6		
	Plumbing (Supply and fix the following)				
В	³ / ₄ " GI pipe	No.	1		
C	³ / ₄ " Gate Valve (Peggler)	No.	1		
D	3/4" Bend	No.	3		
Е	3/4" Elbow	No.	4		
F	³ / ₄ Tee equal	No.	3		
G	3/4" Union	No.	1		
Н	3/4" Stop Cork (Peggler)	No.	3		
I J	3/4" Hexagonal nipple 3/4" Sockets	No.	10		
K		No.	2		
L	PVC end-caps 2" PVC end-caps 1½"	No.	2		
M	PVC Tee equal 2"	No.	2		
N	Ditto ½"	No.	2		
O	Reducing socket 2" x 3/4" PVC	No.	2	1	
P	Ditto 1 ½" x ¾"	No.	2		
Q	PVC Adapter ³ / ₄ "	No.	2		
Ι Υ	1 1 0 1 tauptor /4	110.		I	

TOTAL ELEMENT 08	
SUMMARY	AMOUNT
ELEMENT NO.	KSHS
1. SUBSTRUCTURE	
2. CONCRETE WORK AND WALLING	
3. ROOFING AND RAINWATER DISPOSAL	
4. FINISHING	
5. DOORS	
6. WIDOWS	
7. PAINTING AND DECORATION	
8. PLUMBING WORKS	
SUB TOTAL	
TOTAL CARRIED TO SUMMARY	

				KSHS
	BILL NO.07			
	FENCING -OVO			
	(ALL PROVISIONAL)			
A.	Clearing the site of bushes/trees	SM	500	
В	Excavate for fencing poles bases from existing ground level and not exceeding 1.50m deep.(225 x 225x500mm deep holes)	NO.	38	
	Concrete Work			
	Mass concrete 1:4: 8-			
С	50 mm blinding bed under holes for fencing posts	CM	0.2	
	_			
	Reinforced Concrete 1:2:4- 20mm gauge mix in			
D	225x225x450 Bases for Angle columns sections	CM	1.5	
	MILD STEEL TO B.S. 449			
	Structural steel welded & Bolted joints			
Е	75x75x4.5mm Angle column section (Length 2350mm spaced at 3 m c/c)	NO	48	
G	75x75x5.0mm angle section for bracing at corners and at every 30m span (Length 3600mm)	NO	12	
	GATE			
K	Excavate for sides columns poles bases from existing ground level and not exceeding 1.50m deep.(225 x 225x500mm deep holes)	NO.	4	

	Concrete Work			
	Mass concrete 1:4: 8-			
M	50 mm blinding bed under holes for fencing posts	CM	0.1	
N	Reinforced Concrete 1:2:4- 20mm gauge mix in			
	225x225x450 Bases for SHS columns	CM	0.1	
	MILD STEEL TO B.S. 449			
	Structural steel welded & Bolted joints			
О	100x100x4.0mm SHS column (Length 2000mm)	NO.	3	
P	75x75x3.0mm SHS	LM	28.5	
Q	50x50x3.0mm SHS	LM	21	
	FENCING WIRE			
	Barbed wire			
R	Supply and fix Ngombe Double strand Barbed wire 610mtrs, around the perimeter; or equivalent	NO	2	
	CHAIN LINK			
S	Supply and fix 3.0mm chain link twisted 3 times at the ends	SM	220	
R	Bind the chain with a binding wire	ITEM	2	
	Total carried to summary			

ANNEX iii: DRAWINGS

Steel frame surrounding th tank to prevent from theft detail (pg 10) floater detail to manufacture 25mm dia overflow GI pipe fix to approval Somm x 100mm x 3mm steel re-sections spaced at 350mm u'c to focus a square platform of 2000 x 2000mm 150mm thick RC slab with binaminous felt cover laid to fall minimum gradient 1.5th a leader of the 180mm thick masonry wall keyed to approval steel door to detail (no 190) SIDE ELEVATION

2 Y12 - 07 E.F 2 Y12 - 07 - E.F 14.08 - 06 - 150 14 R8 - 06 - 150 X-X 2 Y12 - 05 E.F 2 Y12 - 05 - E.F 6R8 - 06 - 150 6R8 - 06 - 150 5 Y 12 - 04 - 250 4 Y12 - 04 - 250 4 Y12 - 08 - 250 4 Y12 - 04 - 250 DETAIL FOR COLUMN & COL. BASE DETAIL FOR COLUMN & COL. BASE SHOWN THUS D 2no. SHOWN THUS C 2no.

SECTION - Y

SIDE ELEVATION 001

1:1

water drip detail

2Y 12 - 09 15 R8 - 10 - 150 2Y 12-10 200 200 BEAM A 2No. 2Y 12 - 12 15 Ro - 10 - 150 2Y 12 - 12 200 200 200 200 BEAM B 2No.

SECTION Y-Y 1:1

BEAM DETAIL

COLUMN DETAILS

specified

Dimensions to be read, not scaled Only Contractor to check and verify all of one works

All dimensions are in mm unless otherwise

CONSTRUCTION

NOTES: GENERAL.

1. All slabs at around level to be noured over 1000 gauge polythene sheeting on 50 mm thick muram bliding layer which on 300 hardcore fill.

2. All soil under slabs and all around external

foundations to be treated against termites.

STRUCTURAL.

1. All block compared to be consecred from below all building and paved surfaces.

2 All soil under slabs and all anound external foundations to be treated against termites.

Building to be clear of black cotton soil within 3m outside the perimeter wall.
 For all R.C works, refer to structural

drawings. 4 Depth of foundation to be determined on the

site to structural Engineers Approval.

MECHANICAL.

All plumbing and drainage to comply with local authority regulations.
 All service ducts to be accessible from all

3. SVP denotes soil vent pipe to be provided

at the head of the drainage.

all doors and windows except bathroom and water close t doors. 5. All underground foul and waste drain pipes

shall be east iron to comply with Bs 497 table

2 grade A. The sterm drain nine to comply with Ba

556 minimum slope in the drain pipes in 1%.

t All testing of pipes must be done before

prefix description date

ISLAMIC RELIEF

PROPOSED TYPICAL WATER KIOSK AT 5 WATER TAPS -DELIVER

WORKING DRAWINGS

1:1

1:1

