

REPUBLIC OF KENYA



MINISTRY OF ROADS, TRASPORT & PUBLIC WORKS
PUBLIC WORKS DEPARTMENT

**PROPOSED 3 BEDROOM, BOUNDARY
WALL, GUARD HOUSE, UNDERGROUND
WATER TANK, ELEVATED WATER
TOWER AND 1NO. TWIN TOILET**

AT

**DEPUTY COUNTY COMMISSIONER'S
RESIDENCE- ASHABITO**

MANDERA NORTH CONSTITUENCY

BILLS OF QUANTITIES

TENDER NO:

Prepared by:

Sub County Works Officer,
Mandera North Sub County
Department of Public Works
P.O. Box 49-70300,
MANDERA

Issued by:

Fund Account Manager,
Constituency Development Fund
Mandera North Constituency,
P.O. Box 255 – 70300,
MANDERA

June, 2023

PROPOSED 3 BEDROOM, BOUNDARY WALL, GUARD HOUSE, UNDERGROUND WATER TANK, ELEVATED WATER TOWER AND 1NO. TWIN TOILET AT DEPUTY COUNTY COMMISSIONER'S RESIDENCE- ASHABITO- MANDERA NORTH CONSTITUENCY

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**PROPOSED 3 BEDROOM, BOUNDARY WALL, GUARD HOUSE,
UNDERGROUND WATER TANK, ELEVATED WATER TOWER AND
1NO. TWIN TOILET AT DEPUTY COUNTY COMMISSIONER'S
RESIDENCE- ASHABITO- MANDERA NORTH CONSTITUENCY**

Supplied as Part of The Contract for The proposed 3 bedroom, boundary wall, guard house, underground water tank, elevated water tower and 1no. Twin toilet at deputy county commissioner's residence- Ashabito- Mandera north constituency

Issued by: -

**Fund Account Manager
Constituency Development Fund,
Mandera North Constituency,
P.O. Box 255 – 70300,
MANDERA**

The contract for the above-mentioned works entered into this day of 2023 by undersigned refers to these Bills of Quantities and the Department of Public works General Specification dated March, 1976 (together with any amendments issued thereto) shall be read and construed as part of the said contract.

.....
CONTRACTOR

Date:

.....
**CDF FUND ACCOUNT MANAGER
MANDERA NORTH CONSTITUENCY**

Date:

SPECIAL NOTES

The contractor is required to check the numbers of the pages of these Bills of Quantities and should he find any missing or in duplicate or figures indistinct he must inform the Sub county Works Officer, Department of Public Works, Mandera North Sub county at once and have the same rectified.

Should the contractor be in doubt about the precise meaning of any item or figure for any reason whatsoever, he must inform the SCWO, Department of Public Works, Mandera North Sub County in order that the correct meaning may be decided before the date for submission of tenders.

No liability will be admitted nor claim allowed in respect of errors in the Contractor's Tender due to mistakes in the specifications, which should have been rectified in the manner, described above.

SIGNATURE PAGE AND NOTES

FORM OF CONTRACT

The form of contract shall be as stipulated in the Republic of Kenya's Standard Tendering Document for procurement of Building and associated Civil Engineering works (December 2009 Edition).

The tenderer is advised to first read and understand this document especially the first two sections i.e., instructions to tenderers and the conditions of contract before pricing these Bills.

A copy of the document is available at the Department of Public Works, P.O. Box 49-70300, MANDERA

APPENDIX TO CONDITIONS OF CONTRACT

THE EMPLOYER IS

Name: **CDF- MANDERA NORTH CONSTITUENCY**

Address: **P.O. Box 255 – 70300, MANDERA**

Name of Authorized Representative: **Account Fund Manager –Mandera North Constituency, P.O. Box 255 – 70300, Mandera**

E-mail: **cdfmanderanorth@ngcdf.go.ke / amustafa@ngcdf.go.ke**

Fax/Tel:

The Project Manager is: **SCWO – Mandera North Sub County**

Address: **P.O. BOX 49-70300, Mandera**

Telephone:

E-mail: **mdrpublicworks@gmail.com**

The name (and identification number) of the Contract is **The proposed 3 bedroom, boundary wall, guard house, underground water tank, elevated water tower and 1no. Twin toilet at deputy county commissioner’s residence- Ashabito- Mandera north constituency**

The works consist of: **construction of 3 bedroom, boundary wall, guard house, underground water tank, elevated water tower and 1no. Twin toilet**

The Start Date shall be **AGREED WITH THE PROJECT MANAGER**

The Intended Completion Date for the whole of the Works shall be **16 weeks from the commencement date as agreed with the Project Manager**

The following documents also form part of the Contract:

AS LISTED IN CLAUSE 2.3 OF CONDITIONS OF CONTRACT

The Contractor shall submit a revised program for the Works within **SEVEN (7)** days of delivery of the Letter of Acceptance.

The Site Possession Date shall be **AGREED WITH THE PROJECT MANAGER**

The Site is located at **Deputy County Commissioners Residence-Ashabito**

The Defects Liability period is **180** days

ACC/02

The minimum insurance covers shall be; “ALL RISKS INSURANCE”

The following events shall also be Compensation Events:

1. **NONE (ONLY AS LISTED IN CLAUSE 24 OF THE CONDITIONS OF CONTRACT**

2. _____

3. _____

4. _____

The period between Program updates is **30** days.

The amount to be withheld for late submission of an updated Program is **FULL CERTIFICATE**

The proportion of payments retained is **10%** percent.

The Price Adjustment Clause **SHALL NOT** apply

The liquidated damages for the whole of the Works is Kshs.**1,000.00** (per week)

The Performance Security shall be for the following minimum amounts equivalent as a percentage of the Contract Price **5 percent (%)**

The Completion Period for the Works is **16 Weeks.**

The rate of exchange for calculation of foreign currency payments is **not applicable**

The schedule of basic rates used in pricing by the Contractor is as attached [*Contractor to attach*].

Advance Payment **SHALL NOT** be granted.

Prices for **V.A.T should be** included in the Contractor's Rates in the Bills of Quantities where applicable.

The Bidder should submit **ONLY ONE (1 NO.) ORIGINAL COPY** of the Bills of Quantities and not two (2No.) as indicated in Clause 4.1 of the Instruction to Tenderers.

STANDARD FORMS

- (i) FORM OF TENDER**
- (ii) FORM OF AGREEMENT**
- (iii) FORM OF TENDER SECURITY**
- (iv) PERFORMANCE BANK GUARANTEE**
- (v) QUALIFICATION INFORMATION**
- (vi) TENDER QUESTIONNAIRE**
- (vii) CONFIDENTIAL BUSINESS QUESTIONNAIRE**
- (viii) DETAILS OF SUB-CONTRACTORS**

FORM OF TENDER

TO: _____ [*Name of Employer*]
_____ [*Date*] _____ [*Name of Contract*]

Dear Sir,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above named Works, we, the undersigned offer to construct, install and complete such Works and remedy any defects therein for the sum of Kshs. _____ [*Amount in figures*] Kenya
Shillings _____ [*Amount in words*]
2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Project Manager’s notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Appendix to Conditions of Contract.
3. We agree to abide by this tender until _____ [*Insert date*], and it shall remain binding upon us and may be accepted at any time before that date.
4. Unless and until a formal Agreement is prepared and executed this tender together with your written acceptance thereof, shall constitute a binding Contract between us.
5. We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this _____ day of _____ 20_____

Signature _____ in the capacity of _____

Duly authorized to sign tenders for and on behalf of

_____ [*Name of Contractor*]

of _____ [*Address of Contractor*]

Witness; Name _____

Address _____ Signature _____

Date _____

FORM OF AGREEMENT

THIS AGREEMENT, made the _____ day of _____ 20 _____

between _____ of [or whose registered office is situated at] _____ (Hereinafter called "**the Employer**") of the one part **AND**

_____ of [or whose registered office is situated at] _____ (Hereinafter called "**the Contractor**") of the other part.

WHEREAS THE Employer is desirous that the Contractor executes

_____ (Name and identification number of Contract) (Hereinafter called "the Works") located at _____ [Place/location of the Works] and

the Employer has accepted the tender submitted by the Contractor for the execution and completion of such Works and the remedying of any defects therein for the Contract Price of Kshs _____ [Amount in figures], Kenya Shillings _____ [Amount in words].

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and shall be read and construed as part of this Agreement i.e.
 - (i) Letter of Acceptance
 - (ii) Form of Tender
 - (iii) Conditions of Contract Part I
 - (iv) Conditions of Contract Part II and Appendix to Conditions of Contract
 - (v) Specifications
 - (vi) Drawings
 - (vii) Priced Bills of Quantities

3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

The common Seal of _____

Was hereunto affixed in the presence of _____

Signed Sealed, and Delivered by the said _____

Binding Signature of Employer _____

Binding Signature of Contractor _____

In the presence of:-

(i) Name _____

Address _____

Signature _____

[ii] Name _____

Address _____

Signature _____

FORM OF TENDER SECURITY

WHEREAS (Hereinafter called “the Tenderer”) has submitted his tender dated for the construction of.....
(Name Of Contract)

KNOW ALL PEOPLE by these presents that WE
having our registered office at
(Hereinafter called “the Bank”), are bound unto.....
(Hereinafter called “the Employer”) in the sum of Kshs... ..
for which payment well and truly to be made to the said Employer, the Bank binds itself, its successors and assigns by these presents sealed with the Common Seal of the said Bank this Day of20.....

THE CONDITIONS of this obligation are:

- 1. If after tender opening the tenderer withdraws his tender during the period of tender validity specified in the instructions to tenderers

Or
- 2. If the tenderer, having been notified of the acceptance of his tender by the Employer during the period of tender validity:
 - (a) fails or refuses to execute the form of Agreement in accordance with the Instructions to Tenderers, if required; or
 - (b) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Tenderers;

We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including thirty (30) days after the period of tender validity, and any demand in respect thereof should reach the Bank not later than the said date.

[Date [_____

[Witness]

[signature Of Bank)

[Seal]

PERFORMANCE BANK GUARANTEE

To: _____ (*Name of Employer*)
_____ (*Date*) _____ (*Address of Employer*)

Dear Sir,

WHEREAS _____ (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ (hereinafter called "the works')

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of Kshs. _____ (*amount of Guarantee in figures*) Kenya Shillings _____ (*amount of Guarantee in words*), and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of Kenya Shillings _____ (*amount of Guarantee in words*) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change, addition or other modification of the terms of the Contract the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any change, addition, or modification.

This guarantee shall be valid until the date of issue of the Certificate of Completion.

SIGNATURE AND SEAL OF THE GUARANTOR _____

Name of Bank _____

Address _____

Date _____

QUALIFICATION INFORMATION

1. Individual Tenderers or Individual Members of Joint Ventures

1.1 Constitution or legal status of tenderer (attach copy or Incorporation Certificate)

Place of registration: _____

Principal place of business _____

Power of attorney of signatory of tender _____

1.2 Total annual volume of construction work performed in the last five years

Year	Volume	
	Currency	Value

1.3 Work performed as Main Contractor on works of a similar nature and volume over the last five years. Also list details of work under way or committed, including expected completion date.

Project name	Name of client and contact person	Type of work performed and year of completion	Value of Contract

1.4 Major items of Contractor's Equipment proposed for carrying out the Works. List all information requested below. Refer also to Clause 1.7 (c) of the Instructions to Tenderers.

Item of Equipment	Description, Make and age (years)	Condition (new, good, poor) and number available	Owned, leased (from whom?), or to be purchased (from whom?)

- 1.5 Qualifications and experience of key personnel proposed for administration and execution of the Contract. Attach biographical data. Refer also to clause 1.5 (e) of the Instructions to Tenderers and Clause 9.1 of the Conditions of Contract.

Position	Name	Years of experience (general)	Years of experience in proposed position

- 1.6 Proposed subcontracts and firms involved. Refer to Clause 7.1 of the Conditions of Contract.

Sections of the Works	Value of Subcontract	Subcontractor (name and address)	Experience in similar work

- 1.7 Financial reports for the last five years: balance sheets, profit and loss statements, auditor's reports, etc. List below and attach copies.

- 1.8 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List below and attach copies of supportive documents.

- 1.9 Name, address and telephone, telex and facsimile numbers of banks that may provide reference if contacted by the Employer.

- 1.10 Statement of compliance with the requirements of Clause 1.2 of the Instructions to Tenderers.

TENDER QUESTIONNAIRE

Please fill in block letters.

1. Full names of tenderer

.....

2. Full address of tenderer to which tender correspondence is to be sent (unless an agent has been appointed below)

.....

3. Telephone number (s) of tenderer

.....

4. Telex address of tenderer

.....

5. Name of tenderer's representative to be contacted on matters of the tender during the tender period

.....

6. Details of tenderer's nominated agent (if any) to receive tender notices. This is essential if the tenderer does not have his registered address in Kenya (name, address, telephone, telex)

.....

.....

Signature of Tenderer.....

Make copy and deliver to: _____

(Name of Employer)

CONFIDENTIAL BUSINESS QUESTIONNAIRE

You are requested to give the particulars indicated in Part 1 and either Part 2 (a), 2 (b) or 2 (c) and 2(d) whichever applies to your type of business.
You are advised that it is a serious offence to give false information on this Form.

Part 1 – General

Business Name

Location of business premises; Country/Town.....

Plot No..... Street/Road

Postal Address..... Tel No.....

Nature of Business.....

Current Trade License No.....Expiring date.....

Maximum value of business which you can handle at any time: Kenya

Shillings.....

Name of your bankers.....

Branch.....

Part 2 (a) – Sole Proprietor

Your name in full..... Age.....

Nationality..... Country of Origin.....

Citizenship details

Part 2 (b) – Partnership

Give details of partners as follows:

	<i>Name in full</i>	<i>Nationality</i>	<i>Citizenship Details</i>	<i>Shares</i>
1
2
3.

Part 2(c) – Registered Company:

Private or public.....
 State the nominal and issued capital of the company-
 Nominal Kshs.....
 Issued Kshs.....
 Give details of all the directors as follows:

	<i>Name in full</i>	<i>Nationality</i>	<i>Citizenship Details*</i>	<i>Shares</i>
1
2
3
4

Part 2 (d) – Interest in the Firm:

Is there any person/persons in.....? (*Name of Employer*) who has interest in this firm? Yes/No.....
 (Delete as necessary).

I certify that the above information is correct.

.....
<i>(Title)</i>	<i>(Signature)</i>	<i>(Date)</i>

- Attach proof of citizenship

DETAILS OF SUB-CONTRACTORS

If the Tenderer wishes to sublet any portions of the Works under any heading, he must give below details of the sub-contractors he intends to employ for each portion.

Failure to comply with this requirement may invalidate the tender.

(1) Portion of Works to be sublet.....

 (i) Full name of Sub-contractor
 and address of head office:

 (ii) Sub-contractor's experience
 of similar works carried out
 in the last 3 years with
 Contract value.....

(2) Portion of Works to sublet:

 (i) Full name of sub-contractor
 and address of head office:

.....

.....

 (ii) Sub-contractor's experience
 of similar works carried out
 in the last 3 years with
 contract value:

[Signature of Tenderer)

Date

PARTICULAR PRELIMINARIES

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>PRICING ITEMS OF PRELIMINARIES</p> <p>Prices SHALL BE INSERTED against items of “preliminaries” in the tenderer’s priced Bills of Quantities. The contractor is advised to read and understand all the necessary preliminary items.</p>		
B	<p>DESCRIPTION OF THE WORKS: The works comprises of Construction of Deputy County Commissioner’s Residence</p>		
C	<p>MEASUREMENTS</p> <p>In the event of any discrepancies arising between the Bills of Quantities and the actual works, the site measurements shall generally take precedence. However, such discrepancies between any contract documents shall immediately be referred to the PROJECT MANAGER in accordance with Clause 22 of the Conditions of Contract. The discrepancies shall then be treated as a variation and be dealt with in accordance with Clause 22 of the said Conditions.</p> <p>LOCATION OF SITE</p> <p>The site is located in Ashabito-Mandera North Constituency. The Contractor is advised to visit the site, to familiarize with the nature and position of the site. No claims arising from the Contractor’s failure to do so will be entertained.</p>		
D			
E	<p>P.C. AND PROVISIONAL SUM</p> <p>The allowances given for the above is for full contract.</p>		
	<p>Carried to Collection</p>		

ITEM	DESCRIPTION	Kshs.	Cts
A	<p>CLEARING AWAY</p> <p>The Contractor shall remove all temporary works, rubbish, debris and surplus materials from the site as they accumulate and upon completion of the works, remove and clear away all plant, equipment, rubbish, unused materials and stains and leave in a clean and tidy state to the reasonable satisfaction of the Project Manager.</p> <p>The whole of the works shall be delivered up clean, complete and in perfect condition in every respect to the satisfaction of the Project Manager.</p>		
B	<p><u>CLAIMS</u></p> <p>It shall be a condition of this contract that upon it becoming reasonably apparent to the Contractor that he has incurred losses and/or expenses due to any of the contract conditions, or by any other reason whatsoever, he shall present such claim or intent to claim notice to the PROJECT MANAGER within the contract period. No claims shall be entertained upon the expiry of the said contract period.</p>		
C	<p>PREVENTION OF ACCIDENT, DAMAGE OR LOSS</p> <p>The Contractor is notified that these works are to be carried out on a restricted site where the office is going on with its normal activities. The Contractor is instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of normal activities being carried out by the client.. The Contractor shall allow in his rates any expense he deems necessary by taking such care within the site. Noise should be minimized and any other kind of disruptions.</p>		
D.	<p><u>TAXES</u></p> <p>The tenderers shall include in their rates any taxes that they may be required to pay after execution of and payment for the works. It shall be the sole responsibility of the contractor to remit such payments directly to the authorities right.</p>		
	Carried to Collection		
<i>Item</i>	<i>DESCRIPTION</i>	<i>Kshs.</i>	<i>Cts</i>

PP/2

<p>A</p> <p>WORKING CONDITIONS</p> <p>The Contractor shall allow in his rates for any interference that he may encounter in the course of execution of the works.</p> <p>B</p> <p>SIGNBOARD</p> <p>Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away a signboard as designed, specified and approved by the Project Manager.</p> <p>C</p> <p><u>LABOUR CAMPS</u></p> <p>The Contractor shall not be allowed to house labour on site. Allow for transporting workers to and from the site during the tenure of the contract.</p> <p>MATERIALS FROM DEMOLITIONS</p> <p>D</p> <p>Any materials arising from demolitions and not re-used shall become the property of the client. The Contractor shall allow in his rates the cost of transporting the demolished materials as directed by the PROJECT MANAGER.</p> <p>PRICING RATES</p> <p>E</p> <p>The tenderer shall include for all costs in executing the whole of the works, including transport from stores, fixing, all to comply with the said Conditions of Contract. A tender which plus or minus 10% shall be considered as non-responsive.</p> <p>TENDER SECURITY</p> <p>F</p> <p>The tender must be accompanied by a tender security of Kenya Shillings One Hundred Thousand (Kshs 100,000.00) or else the tender shall be disqualified.</p>			
	<p>Carried to Collection</p>		

<i>Item</i>	<i>DESCRIPTION</i>	Kshs.	Cts
<p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>F</p>	<p>SECURITY</p> <p>The Contractor shall allow for providing adequate security for the works and the workers in the course of execution of this contract. No claim will be entertained from the Contractor for not maintaining adequate security for both the works and workers.</p> <p>URGENCY OF THE WORKS</p> <p>The Contractor is notified that these “works are urgent” and should be completed within the period stated in these Particular Preliminaries.</p> <p>The Contractor shall allow in his rates for any costs he deems that he/she may incur by having to complete the works within the stipulated contract period.</p> <p>EXISTING SERVICES</p> <p>Prior to the commencement of any work, the Contractor is to ascertain from the relevant authority the exact position, depth and level of all existing services in the area and he/she shall make whatever provisions may be required by the authorities concerned for the support, maintenance and protection of such services.</p> <p>TRANSPORT</p> <p>The contractor shall provide when required for site trips only a vehicle to comfortably seat at least four (4) persons including maintained licence,</p> <p>FIRM PRICE CONTRACT</p> <p>This is a firm (fixed) price contract. The contractor must allow for price changes during the contract period.</p> <p style="text-align: center;"><i>PP/4</i></p>		
ITEM	DESCRIPTION	Kshs.	Cts

<p>A</p> <p>B</p> <p>C</p> <p>D</p>	<p>PERFORMANCE BOND</p> <p>A bond of 5% of the contract sum will be required in accordance with clause 6.00 on award of contract of the Instructions to Tenderer's. No payment on account for the works executed will be made to the contractor until he has submitted the Performance Bond to the Project Manager duly signed, sealed and stamped from an approved Bank.</p> <p>TENDER DOCUMENTS</p> <p>Tender documents are as listed in Clause 2.1 of the Instruction to Tenderer's Page STD/8</p> <p><u>DELIVERY OF TENDER</u></p> <p>Tenders and all documents in connection therewith, as specified above must be delivered in the addressed envelope which should be properly sealed and deposited at the offices as specified in the letter accompanying these documents.</p> <p>Tenders will be opened at the time specified in the letter accompanying these Tender Documents or as indicated in the advertisement. Tenders delivered/received later than the above time will not be opened.</p> <p>VALUE ADDED TAX</p> <p>The Contractor's attention is drawn to the Legal Notice in the Finance Act part 3 Section 21(b) operative from 1st September, 1993 which requires payment of VAT on all contracts. However the contractor shall make provision for this in the individual rats as it will not be separately provided for in this document.</p>		
	<p>Total Carried to Collection</p> <p><i>PP/5</i></p>		

<i>Item</i>	<i>DESCRIPTION</i>	Kshs.	Cts
<u>PARTICULARS OF INSERTIONS TO BE MADE IN APPENDIX TO CONTRACT AGREEMENT</u>			
The following are the insertions to be made in the appendix to the Contract Agreement: -			
A	Period of Final Measurement	3 Months From Practical completion	
B	Defects Liability Period	6 Months from practical completion	
C	Date for Possession	To be agreed with the Project Manager	
D	Date for Completion	To be agreed with the Project Manager	
E	Liquidated and Ascertained	At the rate of Kshs <u>10,000.00</u> per week or part thereof	
F	Prime cost sums for which the Contractor desires to tender	
G	Period of Interim Certificates	Monthly	
H	Period of Honouring Certificates	30 days	
J	Percentage of Certified Value Retained	10%	
K	Limit of Retention Fund	10 %	
Carried to Collection			

ITEM	DESCRIPTION	AMOUNT
	<u>SUMMARY OF PARTICULAR PRELIMINARIES</u>	
	Total from page PP/1	
	Total from page PP/2	
	Total from page PP/3	
	Total from page PP/4	
	Total from page PP/5	
	Total from page PP/6	
	TOTAL CARRIED TO GRAND SUMMARY	

Item	Description	Kshs.	Cts
A.	<p>GENERAL PRELIMINARIES</p> <p>PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES</p> <p>Prices shall be inserted against items of Preliminaries in the Contractor's priced bills of Quantities and Specification but not in the unit rates</p>		
B.	<p><u>ABBREVIATIONS</u></p> <p>Throughout the Bills, unites of measurement and terms are abbreviated and shall be interpreted as follows: -</p> <p>C.M. Shall mean cubic metre</p> <p>S.M Shall mean square metre</p> <p>L.M. Shall mean linear metre</p> <p>M.M Shall mean Millimetre</p> <p>Kg. Shall mean Kilogramme</p> <p>No. Shall mean Number</p> <p>Prs. Shall mean Pairs</p> <p>B.S. Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.I., England.</p> <p>Ditto Shall mean the whole of the preceding description except as qualified in the description in which it occurs.</p> <p>m.s. Shall mean measured separately.</p> <p>a.b.d Shall mean as before described.</p>		

Item	Description	Kshs.	Cts
A.	<p>EXCEPTION TO THE STANDARD METHOD OF MEASUREMENT</p> <p>Attendance; Clause B19(a) of the Standard Method of Measurement is deleted and the following clause is substituted: -</p> <p>Attendance on nominated Sub-Contractors shall be given as an item in each case shall be deemed to include: allowing use of standard scaffolding, mess rooms, sanitary accommodation and welfare facilities; provision of special scaffolding where necessary; providing space for office accommodation and for storage of plant and materials; providing light and water for their work: clearing away rubbish; unloading checking and hoisting: providing electric power and removing and replacing duct covers, pipe casings and the like necessary for the execution and testing of Sub-Contractor’s work and being responsible for the accuracy of the same.</p> <p style="text-align: center;">Fix Only: -</p> <p>“Fix Only” shall mean take delivery at nearest railway station (Unless otherwise stated), pay all demurrage charges, load and transport to site where necessary, unload, store, unpack, assemble as necessary, distribute to position, hoist and fix only.</p>		
B.	<p style="text-align: center;">EMPLOYER</p> <p>The“Employer”is the constituency development fund- Mandera north constituency</p> <p>The term “Employer” and “client” wherever used in the contract document shall be synonymous</p>		
C.	<p style="text-align: center;">PROJECT MANAGER</p> <p>The term “P.M.” wherever used in these Bills of Quantities shall be deemed to imply the Project Manager as defined in Condition 1 of the Conditions of Contract or such person or persons as may be duly authorized to represent him on behalf of the Client.</p>		
D.	<p style="text-align: center;">ARCHITECT</p> <p>The term “Architect” shall be deemed to mean “The P.M” as defined above whose address unless otherwise notified is Ministry of Public Works, P.O. Box 49, MANDERA</p>		
E.	<p style="text-align: center;">QUANTITY SURVEYOR</p> <p>The term “Quantity Surveyor” shall be deemed to mean “The P.M.” as defined above whose address unless otherwise notified is Ministry of Public Works, P.O. Box 49, and MANDERA.</p> <p>Carried to collection</p>		

Item	Description	Kshs.	Cts
A.	<p style="text-align: center;">ELECTRICAL ENGINEER</p> <p>The term “Electrical engineer” shall be deemed to mean “The P.M.” as defined above whose address unless otherwise notified is Ministry Public Works.</p>		
B.	<p style="text-align: center;">MECHANICAL ENGINEER</p> <p>The term “Mechanical Engineer” shall be deemed to mean “The P.M.” as defined above whose address unless otherwise notified is Ministry of Public Works.</p>		
C.	<p style="text-align: center;">STRUCTURAL ENGINEER</p> <p>The term “Structural Engineer” shall be deemed to mean “The P.M.” as defined above whose address unless otherwise notified is Ministry of Public Works.</p>		
D.	<p style="text-align: center;">FORM OF CONTRACT</p> <p>The Form of Contract shall be as stipulated in the Republic of Kenya’s Standard Tender Document for Procurement of Building Works (2000 Edition). A copy of which is available at the Ministry of Public Works – MANDERA.</p>		
E.	<p style="text-align: center;">Conditions of Contract</p> <p>These are numbered from 1 – 37 and are contained in the above named document. Particulars of insertions to be made in the Appendix to the Contract Agreement will be found in the Particular Preliminaries part of these Bills of quantities.</p>		
F.	<p>BOND</p> <p>The Contractor shall find and submit an approved bank and who will be willing to be bound to the client in an amount equal to five percent (5%) of the Contract amount for the due performances of the Contract up to the date of completion as certified by the PROJECT MANAGER and who will when and if called upon, sign and Bond to that effect on the relevant standard form included herein. (Without the addition of any limitations) on the same day as the contract Agreement is signed, by the Government, the Contractor shall furnish within seven days another Surety to the approval of the Government.</p> <p>Carried to collection</p>		

Item	Description	Kshs.	Cts
A.	<p style="text-align: center;">PLANTS, TOOLS AND VEHICLES</p> <p>Allow for providing all scaffolding, plant, tools and vehicles required for the works except in so far as may be stated otherwise herein and except for such items specifically and only required for the use of nominated Sub-Contractors as described herein. No timber used for scaffolding, formwork or temporary works of any kind shall be used afterwards in the permanent work.</p>		
B.	<p style="text-align: center;">TRANSPORT</p> <p>Allow for transport of workmen, materials from stores, etc. to and from the site at such hours and by such routes as may be permitted by the competent authorities.</p>		
C.	<p>MATERIALS AND WORKMANSHIP</p> <p>All materials and workmanship used in the execution of the work shall be of the best quality and description unless otherwise stated. The Contractor shall order all materials to be obtained from overseas immediately after the Contract is signed and shall also order materials to be obtained from local sources as early as necessary to ensure that they are onsite when required for use in the works. The Bills of Quantities shall not be used for the purpose of ordering materials.</p>		
D.	<p>SIGN FOR MATERIALS SUPPLIED</p> <p>The Contractor will be required to sign a receipt for all articles and materials supplied by the PROJECT MANAGER at the time of taking deliver thereof, as having received them in good order and condition, and will thereafter be responsible for any loss or damage and for replacements of any such loss or damage with articles and /or materials which will be supplied by the PROJECT MANAGER at the current market prices including Customs Duty and V.A.T., all at the Contractor's own cost and expense, to the satisfaction of the PROJECT MANAGER.</p>		
E.	<p style="text-align: center;">STORAGE OF MATERIALS</p> <p>The Contractor shall provide at his own risk and cost where directed on the site weather proof lock-up sheds and make good damaged or disturbed surfaces upon completion to the satisfaction of the PROJECT MANAGER Nominated Sub-contractors are to be made liable for the cost of any storage accommodation provided especially for their use.</p> <p>Carried to collection</p>		

Item	Description	Kshs.	Cts
A.	<p style="text-align: center;">SAMPLES</p> <p>The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER, may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expenses of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the Ministry of Public Works.</p> <p>The procedure for submitting samples or materials for testing and the method of making for identification shall be as laid down by the PROJECT MANAGER. The Contractor shall allow in his tender for such samples and tests except those in connection with nominated sub-contractor's work.</p>		
B.	<p>GOVERNMENT ACTS REGARDING WORK PEOPLE ETC.</p> <p>Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople.</p> <p>The Contractor must make himself fully acquainted with current Acts and Regulations, including Police Regulations regarding the movement, housing, security and control of labour, labour camps, passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the organisation of the works, supply and control of labour, etc., and allow accordingly in his tender. No claim in respect of want of knowledge in this connection will be entertained.</p>		
C.	<p>SECURITY OF WORKS ETC.</p> <p>The Contractor shall be entirely responsible for the security of all the works stores, materials, plant, personnel, etc., both his own and sub-contractor's and must provide all necessary watching, lighting and other precautions as necessary to ensure security against theft, loss or damage and protection of the public.</p> <p>Carried to collection</p>		

Item	Description	Kshs.	Cts
A.	<p style="text-align: center;">PUBLIC AND PRIVATE ROADS</p> <p>Maintain as required throughout the execution of the works and make good any damage to public or private roads arising from the consequent upon the execution of the works to the satisfaction of the local and other competent authority and the PROJECT MANAGER.</p>		
B.	<p>EXISTING PROPERTY</p> <p>The Contractor shall take every precaution to avoid damage to all existing property including roads, cables, drains and other services and he will be held responsible for and shall make good all such damage arising from the execution of this contract at his own expenses to the satisfaction of the PROJECT MANAGER.</p>		
C.	<p>VISIT SITE AND EXAMINE DRAWINGS</p> <p>The Contractor is recommended to examine the drawings and visit the site the location of which is described in the Particular Preliminaries hereof. He shall be deemed to have acquainted himself therewith as to its nature, position, means of access or any other matter which may affect his tender. No claim arising from his failure to comply with this recommendation will be considered.</p>		
D.	<p style="text-align: center;">ACCESS TO SITE AND TEMPORARY ROADS</p> <p>Means of access to the Site shall be agreed with the PROJECT MANAGER prior to commencement of the work and Contractor must allow for building any necessary temporary access roads.</p>		
E.	<p style="text-align: center;">AREA TO BE OCCUPIED BY THE CONTRACTOR</p> <p>The area of the site which may be occupied by the Contractor for use of storage and for the purpose of erecting workshops, etc., shall be defined on site by the PROJECT MANAGER.</p> <p style="text-align: center;">Carried to collection</p>		

Item	Description	Kshs.	Cts
A.	<p style="text-align: center;">OFFICE, ETC. FOR THE PROJECT MANAGER</p> <p>The Contractor shall provide, erect and maintain where direct on site and afterwards dismantle the site office of the type noted in the Particular Preliminaries, complete the Furniture. He shall also provide a strong metal trunk complete with strong hasp and staple fastening and tow keys. He shall provide, erect and maintain a lock-up type water or bucket closet for the sole use of the PROJECT MANAGER including making temporary connections to the drain where applicable to the satisfaction of Government and Medical Officer of Health and shall provide services of cleaner and pay all conservancy charges and keep both office and closet in a clean and sanitary condition from commencement to the completion of the works and dismantle and make good disturbed surfaces. The office and closet shall be completed before the Contractor is permitted to commence the works. The Contractor shall make available on the Site as and when required by the "PROJECT MANAGER" a modern and accurate level together with leveling staff, ranging rods and 50 metre metallic or linen tape.</p>		
B.	<p>WATER AND ELECTRICITY SUPPLY FOR THE WORKS</p> <p>The Contractor shall provide t his own risk and cost all necessary water, electric light and power required for use in the works. The Contractor must make his own arrangements for connection to the nearest suitable water main and for metering the water used. He must also provide temporary tanks and meters as required at his own cost and clear away when no longer required and make good on completion to the entire satisfaction of the PROJECT MANAGER. The Contractor shall pay all charges in connection herewith. No guarantee is given or implied that sufficient water will be available from mains and the Contractor must make his own arrangements for augmenting this supply at his own cost. Nominated Sub-Contractors are to be made liable for the cost of any water or electric current used and for any installation provided especially for their own use.</p>		
C.	<p style="text-align: center;">SANITATION OF THE WORKS</p> <p>The Sanitation of the works shall be arranged and maintained by the Contractor to the satisfaction of the Government and /or Local Authorities, Labour Department and the PROJECT MANAGER.</p>		
D.	<p>SUPERVISION AND WORKING HOURS</p> <p>The works shall be executed under the direction and to the entire satisfaction in all respects of the PROJECT MANAGER who shall at all times during normal working hours have access to the works and to the yards and workshops of the Contractor and Sub-Contractors or other places where work is being prepared for the contract.</p>		
E.	<p>PROVISIONAL SUMS</p> <p>The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(i) of the Standard Method of Measurement mentioned in Condition No. 16 of the conditions of Contract. Such sums are net and no addition shall be made to them for profit.</p> <p>Carried to Collection</p>		

Item	Description	Kshs.	cts
A.	<p>PRIME COST (OR P.C.) SUMS</p> <p>The term “Prime Costs Sum” or “P.C. Sum” wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement mentioned in Condition No. 16 of the conditions of Contract. Persons of firms nominated by the PROJECT MANAGER to execute work or to provide and fix materials or goods as stated in Condition No. 20 of the Conditions of Contract are described herein as Nominated Sub-Contractors.</p> <p>Persons of firms so nominated to supply goods or materials are described herein as Nominated Suppliers.</p>		
B.	<p>PROGRESS CHART</p> <p>The Contractor shall provide within two weeks of Possession of Site and in agreement with the PROJECT MANAGER a Progress Chart for the whole of the works including the works of Nominated Sub-Contractors; one copy to be handed to the PROJECT chart to be amended as necessary as the work proceeds.</p>		
C.	<p>ADJUSTMENT OF P.C. SUMS</p> <p>In the final account all P.C. Sums shall be deducted and the amount properly expended upon the PROJECT MANAGER’S order in respect of each of them added to the Contract sum. The Contractor shall produce to the PROJECT MANAGER such quotations, invoices or bills, properly receipted, as may be necessary to show the actual details of the sums paid by the Contractor. Items of profit upon P.C. Sums shall be adjusted in the final account pro-rata to the amount paid. Items of “attendance” (as previously described) following P.C. Sums shall be adjusted pro-rata to the physical extent of the work executed (not pro-rata to the amount paid) and this shall apply event though the Contractor’s priced Bill shows a percentage in the rate column in respect of them.</p> <p>Should the Contractor be permitted to tender and his tender be accepted of any work for which a P.C. Sum is included in these Bill of Quantities profit and attendance will be allowed at the same rate as it would be if the work were executed by a Nominated Sub-Contractor.</p> <p>Carried to collection</p>		

Item	Description	Kshs.	cts
A.	<p style="text-align: center;">ADJUSTMENT OF PROVISIONAL SUMS</p> <p>In the final account all Provisional Sums shall be deducted and the value of the work properly executed in respect of them upon the PROJECT MANAGER’S order added to the Contract Sum. Such work shall be valued as described for Variations in Conditions No. 13 of the Conditions of Contract, but should any part of the work be executed by a Nominated Sub-Contractor, the value of such work or articles for the work be supplied by a Nominated Supplier, the value of such work or articles shall be treated as a P.C. Sum and profit and attendance comparable to that contained in the priced Bills of Quantities for similar items added.</p>		
B.	<p>NOMINATED SUB-CONTRACTORS</p> <p>When any work is ordered by the PROJECT MANAGER to be executed by nominated sub-contractors, the Contractor shall enter into Sub-contracts as described in Condition No. 20 of the Conditions of Contract and shall thereafter be responsible for such sub-contractors in every respect. Unless otherwise described the Contractor is to provide for such Sub-Contractors any or all of the facilities described in these Preliminaries. The Contractor should price for these with the nominated Sub-contract Contractor’s work concerned in the P.C. Sums under the description “add for Attendance”.</p>		
C.	<p style="text-align: center;">DIRECT CONTRACTS</p> <p>Notwithstanding the foregoing conditions, the client reserves the right to place a “Direct Contract” for any goods or services required in the works which are covered by a P.C. Sums in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum the priced Bills of Quantities will be adjusted as described for P.C. Sums and allowed.</p>		
D.	<p>ATTENDANCE UPON OTHER TRADESMEN, ETC.</p> <p>The Contractor shall allow for the attendance of trade upon trade and shall afford any tradesmen or other persons employed for the execution of any work not included in this Contract every facility for carrying out their work and also for use of his ordinary scaffolding. The Contractor, however, shall not be required to erect any special scaffolding for them. The Contractor shall perform such cutting away for any making good after the work of such tradesmen or persons as may be ordered by the PROJECT MANAGER and the work will be measured and paid for to the extent executed at rates provided in these Bills.</p> <p style="text-align: center;">Carried to collection</p>		

Item	Description	Kshs.	cts
A.	<p style="text-align: center;">INSURANCE</p> <p>The Contractor shall insure as required in Condition Nos. 22 and 23 of the Conditions of Contract. No payment on account of the work executed will be made to the Contractor until he has satisfied the PROJECT MANAGER either by production of an Insurance Policy or and Insurance Certificates that the provision of the foregoing Insurance Clauses have been complied with in all respects. Thereafter the PROJECT MANAGER shall from time to time ascertain that premiums are duly paid up by the Contractor who shall if called upon to do so, produce the receipted premium renewals for the PROJECT MANAGER'S inspection.</p>		
B.	<p style="text-align: center;">PROVISIONAL WORK</p> <p>All work described as "Provisional" in these Bills of Quantities is subject to remeasurement in order to ascertain in actual quality executed for which payment will be made. All "Provisional" and other work liable to adjustment under this Contract shall left uncovered for a reasonable time to allow all measurements needed for such adjustment to be taken by the PROJECT MANAGER.</p> <p>Immediately the work is ready for measuring, the Contractor shall give notice to the PROJECT MANAGER. If the Contractor makes default in these respects he shall if the PROJECT MANAGER so directs uncover the work to enable all measurements to be taken and afterwards reinstate at his own expenses.</p>		
C.	<p>ALTERATIONS TO BILLS, PRICING, ETC.</p> <p>Any unauthorized alteration or qualification made to the text of the Bills of Quantities may cause the Tender to be disqualified and will in any case be ignored. The Contractor shall be deemed to have made allowance in his prices generally to cover any items against which no price has been inserted in the priced Bills of Quantities. All items of measured work shall be priced in detail and the Tenders containing Lump Sums to cover trades or groups of work must be broken down to show the price of each item before they will be accepted.</p>		
D.	<p style="text-align: center;">BLASTING OPERATIONS</p> <p>Blasting will only be allowed with the express permission of the PROJECT MANAGER in writing. All blasting operations shall be carried out at the Contractor's sole risk and cost in accordance with any Government regulations in force for the time being, and any special regulations laid down by the PROJECT MANAGER governing the use and storage of explosives.</p> <p>Carried to collection</p>		

Item	Description	Kshs.	cts
A.	<p>MATERIALS ARISING FROM EXCAVATIONS</p> <p>Materials of any kind obtained from the excavations shall be the property of the client. Unless the PROJECT MANAGER directs otherwise such materials shall be dealt with as provided in the Contract. Such materials shall only be used in the works, in substitution of materials which the Contractor would otherwise have had to supply with the written permission of the PROJECT MANAGER should such permission be given, the Contractor shall make due allowance for the value of the materials so used at a price to be agreed.</p>		
B.	<p>PROTECTION OF THE WORKS</p> <p>Provide protection of the whole of the works contained in the Bill of Quantities, including casing, casing up, covering or such other means as may be necessary to avoid damage to the satisfaction of the PROJECT MANAGER and remove such protection when no longer required and make good any damage which may nevertheless have been done at completion free of cost to the Government.</p>		
C.	<p>REMOVAL OF RUBBISH ETC.</p> <p>Removal of rubbish and debris from the buildings and site as it accumulates and at the completion of the works and remove all plant, scaffolding and unused materials at completion.</p>		
D.	<p>WORKS TO BE DELIVERED UP CLEAN</p> <p>Clean and flush all gutters, rainwater and waste pipes, manholes and drains, wash (except where such treatment might cause damage) and clean all floors, sanitary fittings, glass inside and outside and any other parts of the works and remove all marks, blemishes, stains and defects from joinery, fittings and decorated surfaces generally, polish door furniture and bright parts of metal works and leave the whole of the buildings watertight, clean, perfect and fit for occupation to the approval of the PROJECT MANAGER.</p>		
E.	<p>FIRM PRICE CONTRACT</p> <p>Unless otherwise specifically stated in the Particular Preliminaries this is a firm price Contract. The contractor must allow in his tender rates for any increase in the cost of labour and materials during the construction period.</p> <p>Carried to collection</p>		

Item	Description	Kshs.	cts
A.	<p>GENERAL SPECIFICATION</p> <p>-</p> <p>For the full description of materials and workmanship, method of execution of the work and notes for pricing, the Contractor is referred to the Ministry of Public Works General Specification dated 1976 or any subsequent revision thereof which is issued as a separate document, and which shall be allowed in all respects unless it conflicts with the General Preliminaries. Trade Preambles or other items in these Bills of Quantities.</p>		
B.	<p style="text-align: center;">TRAINING LEVY</p> <p>The Contractor's attention is drawn to legal notice No. 237 of October, 1971, which requires payment by the Contractor of a Training Levy at the rate of 3% of the contract sum on all contracts of more than Kshs. 50,000.00 in value.</p>		
C.	<p>MATERIALS ON SITE</p> <p>All materials for incorporation in the work must be stored on or adjacent to the site before payment is effected unless specifically exempted by the PROJECT MANAGER. This includes the materials of the Main contractor, Nominated Sub-Contractors and Nominated Suppliers.</p>		
D.	<p>HOARDING</p> <p>The Contractor shall enclose the site or part of the works under construction with a hoarding 2400mm high consisting of iron sheets on 100x50mm timber posts firmly secured at 1800mm centres with two 75x50mm timber rails approximately 300m. Contractor is in addition required to take all precautions necessary for the safe custody of the works, materials, plant, public and Employer's property on the site.</p>		
E.	<p>CONTRACTOR'S SUPERINTENDENCE / SITE AGENT</p> <p>The Contractor shall constantly keep on the works a literate English speaking Agent or Representative, competent and experienced in the kind of work involved who shall give his whole experience in the kind of work involved and shall give his whole time to the superintendence of the works. Such Agent or Representative shall receive on behalf of the Contractor all directions and instructions from the Project Manager and such directions shall be deemed to have been given to the Contractor in accordance with the Conditions of Contract.</p> <p>Carried to collection</p>		

Item	Description	Kshs.	cts
COLLECTION			
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	Brought forward form page GP/3		
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	Brought forward form page GP/8.....		
	Brought forward form page GP/9		
	Brought forward form page GP/10		
	Brought forward form page GP/11		
	Brought forward form page GP/12		
	Total for general preliminaries taken to Grand Summary		

PREAMBLES AND PRICING NOTES

A. GENERALLY

All work to be carried out in accordance with the Ministry of Public Works General Specifications for Building Works issued in 1976 or as qualified or amended.

B. MANUFACTURERS' NAMES

Where manufacturers' names and catalogue references are given for guidance to quality and standard only, alternative manufacturer of equal quality will be accepted at the discretion of the Project Manager.

C. WALLING

All precast concrete blocks shall be manufactured by the methods and to the sizes specified in the Ministry of Public Works "Specification for Metric Sized Concrete Blocks for Building (1972)"

Walling of 100 mm thickness or under shall be reinforced with hoop iron every alternate course.

Prices for walling must allow for all costs in preparing, packing and sending sample blocks for testing as and when required by the Project Manager.

D. CARPENTRY

The grading rules for cypress shall be the same as for podocarpus and all timber used for structural work shall be select (second grade).

All structural timber must conform to the minimum requirements for moisture content and preservative treatment and timber prices must allow for preparing, packing and sending samples for testing when required.

Prices must also include for all nails and fasteners.

A. JOINERY

Cypress for joinery shall be second grade in accordance with the latest grading rules of the Kenya Government.

Where Mahogany is specified, this refers to prime grade only. The Contractor may with the approval of the Project Manager, use either Msharagi or Mvuli in lieu of Mahogany but such approval will be given only in the case of shortages of the hardwoods specified.

Plugging shall be carried out by drilling walling or concrete with masonry drill and filling with propriety plugs of the correct sizes. Cutting with hammer and chisel will not be allowed.

Prices for joinery must include for pencil rounded arises, protection against damage, nails, screws, framing and bedding in cement mortar as required.

Sizes given for joinery items are nominal sizes and exact dimensions of doors, etc., must be ascertained on site.

B. IRONMONGERY

Ironmongery shall be as specified in the Bills of Quantities or equal and approved.

Prices must include for removing and re-fixing during and after painting, labelling all keys, and for fixing to hardwood, softwood, concrete or block work.

Catalogue references given for ironmongery are for purposes of indicating quality and size of item(s). Should the Contractor wish to substitute the specified item(s) with others of equal quality, he must inform the Project Manager and obtain approval in writing.

C. STRUCTURAL STEELWORK

All structural steelwork shall comply with the Ministry of Public Works "Structural Steelwork Specification (1973) and shall be executed by an approved Sub-contractor.

PLASTERWORK AND OTHER FINISHES

All finishing's shall be as described in the general specifications and in these Bills of Quantities.

Prices for pavings are to include for brushing concrete clean, wetting and coating with cement and sand grout 1:1.

Rates for glazed wall tiling are to include for a 12 mm cement and sand (1:4) backing screed specified in these Bills of Quantities.

GLAZING

Where polished plate glass is specified, this refers to general glazing quality.

Prices for glazing shall include for priming of rebates before placing putty.

The Contractor will be responsible for replacing any broken or scratched glass and handing over in perfect condition.

PAINTING

All paint shall be 1st quality "Crown" or other equal and approved

Painting shall be applied in accordance with the manufacturers' instructions.

Prices for painting are to include for scaffolding, preparatory work, priming coats, protection of other works and for cleaning up on completion. Prices for painting on galvanized metal are to include for mordant solution as necessary.

BILL NO. 02: BILLS OF QUANTITIES FOR PROPOSED THREE BEDROOM HOUSE

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	1 NO. UNIT (3-BDR. HOUSE) <u>ELEMENT NO. 1</u> <u>ALL PROVISIONAL</u> <u>NOTE:</u> All work measured under this element is upto and including the floor slabs but excluding the finishes thereon: - <u>SITE CLEARANCE:</u>				
A	Clear the site of all bushes, shrubs, undergrowth and small trees, grab, uproot and cart away burn all arising's.	288	SM	50	14,400.00
B	Excavate over site average 250mm deep to remove vegetable soil, load up wheel and deposit on site not exceeding 100m	142	SM	350	49,700.00
C	Excavate to reduce levels	43	CM	400	17,200.00
D	Excavate for strip foundation trenches not exceeding 1.5m deep commencing from reduced level.	90	CM	450	40,500.00
E	Ditto for column bases	6	CM	550	3,300.00
F.	Allow for keeping excavations free from mud and all water including spring and running water by pumping, paling or other approved means.	-	ITEM	2,000	2,000.00
G.	Allow for planking and strutting to sides of excavations.	-	ITEM	2,000	2,000.00
	CARRIED TO COLLECTION				129,100.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
A	<u>DISPOSAL</u> Load surplus excavated material wheel and deposit onsite not exceeding 100m away.	74	CM	400	29,600.00
B	<u>FILLING:</u> Return, fill and ram selected excavated material around foundations.	51	CM	300	15,300.00
C	<u>HARDCORE AS DESCRIBED:</u> Approved hardcore filling including leveling, consolidating and or hand packing in layers 150mm thick.	47	CM	550	25,850.00
D	<u>BLINDING:</u> 50mm thick layer murrum or other equal and approved blinding to the surface of hardcore; rolled smooth to receive polythene sheeting (m.s.)	118	SM	500	59,000.00
E	<u>INSECTICIDE TREATMENT</u> 'Termidor' or other equal and approved chemical insecticide treatment prepared and applied according to the manufacturer's printed instructions.	118	SM	350	41,300.00
F	<u>REMOVE OF TERMITES NESTS</u> Remove termite's nests by approved means and destroy the termites by applying 'termidor' or other equal and approved chemicals as per the manufacturers printed instructions.	-	ITEM	2,000	2,000.00
	CARRIED TO COLLECTION				173,050.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
A	<u>DAMP PROOF MEMBRANE</u> 500 gauge polythene or other equal and approved plastic sheets damp proof membrane laid over blinding (measured net – allow for laps)	132	SM	250	33,000.00
	<u>In-situ concrete work</u> <u>Mass concrete (1:4:8/38-38mm aggregate)</u>				
B	50mm thick blinding under foundations	60	SM	550	33,000.00
	<u>Vibrated reinforced concrete (1:2:4/20-20mm) aggregate as described in:-</u>				
C	Strip foundations	12	CM	13,000	156,000.00
D	Columns and bases	3	CM	13,000	39,000.00
E	150mm thick floor slab (1:3:6)	132	SM	850	112,200.00
	<u>STEEL REINFORCEMENT</u>				
	<u>Supply and fix bar/rod reinforcement including bending hooks trying wire cutting spacer and supporting all in position as described.</u>				
	<u>High tensile square twisted bars to b.s. 4461</u>				
F	12mm diameter	264	KG	300	79,200.00
G	10mm diameter	184	KG	250	46,000.00
H	8mm diameter	147	KG	250	36,750.00
	CARRIED TO COLLECTION				535,150.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
A	<u>MESH REINFORCEMENT</u> Fabric mesh reinforcement to B.S. 4484 ref. A142 including laps trying wire and spacer blocks complete (measure net allow for lap)	132	SM	450	59,400.00
B	<u>Sawn formwork as described to:</u> Edges of floor slabs 75 - 150mm high	61	LM	400	24,400.00
C	Sides of columns	8	SM	350	2,800.00
D	<u>FOUNDATION WALLING</u> 200mm thick rough chiseled natural stone walling bedded and joined in cement and sand (1:3) mortar and reinforced with and including 20 Gauge 25mm wide hoop iron in every alternate course.	136	SM	500	68,000.00
E	<u>PLINTH AREA FINISHES</u> 20mm thick cement and sand (1:3) wood float render to plinth area.	24	SM	350	8,400.00
F	Prepare and apply three coats black bitumastic paints to rendered area.	24	SM	350	8,400.00
G	<u>PAVING SLABS</u> 600mmx 600mmx50mm thick precast concrete paving slabs laid on compacted murram and pointed in cement and sand (1:3) mortar.	37	SM	650	24,050.00
	TOTAL CARRIED TO COLLECTION				195,450.00
	<u>COLLECTION</u> Brought forward page 3BL/01				129,100.00
	Brought forward page 3BL/02				173,050.00
	Brought forward page 3BL/03				535,150.00
	Brought down from page 3BL/04 above				195,450.00
	TOTAL FOR ELEMENT NO. 01 SUB-STRUCTURES CARRIED TO SUMMARY				1,032,750

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 02</u> <u>R.C. FRAME(SUPERSTRUCTURE)</u>				
	<u>Vibrated reinforced concrete (1:2:4/20-25 – 20mm aggregates) as described in:-</u>				
A	R.C Columns	1	CM	13,000	13,000.00
B	Ring Beams and arches	7	CM	13,000	91,000.00
	<u>Steel reinforcement</u> <u>Supply and Fix steel bar/rod reinforcement</u> <u>including bending hooks trying wire cutting</u> <u>spacer blocks and supporting all in position.</u>				
	<u>High Tensile square twisted bars to B.S. 4461</u> <u>as described in:-</u>				
C	12mm diameter	353	KG	550	194,150.00
D	8mm diameter	193	KG	400	77,200.00
	<u>Sawn Form Works as described to:-</u>				
E	Side and soffits to ring beams	70	SM	300	21,000.00
F	Sides of columns	10	SM	250	2,500.00
	TOTAL FOR ELEMENT NO. 02 REINFORCED CONCRETE FRAME CARRIED TO SUMMARY				398,850.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 03</u> <u>EXTERNAL WALLING</u>				
	<u>Fine chisel dressed natural stone walling bedded and joined in cement and sand (1:3) mortar as described:-</u>				
A	200mm thick reinforcement with and including 25mm wide x 3mm thick galvanized hoop iron in every alternate course.	130	SM	400	52,000.00
B	Ditto but in precast concrete lourse blocks	15	SM	300	4,500.00
	<u>Horizontal damp proof course; one layer of 3ply bituminous felt or other equal and approved (measured net-allow for laps)</u>				
C	200mm wide leveled and bedded in cement and sand (1:3) mortar under walls.	42	LM	400	16,800.00
	<u>SUNDRIES</u>				
D	Labour and material for 200mm wide x 230mm (average) high eaves filling to top of 200mm wall.	13	SM	500	6,500.00
E	Fair raking cutting on top of 200mm wall.	10	LM	480	4,800.00
F	Pair of 250mm x 250mm x30mm thick precast permanent vent fitted with mosquito gauze	12	No.	450	5,400.00
	TOTAL FOR ELEMENT NO. 3 EXTERNAL WALLING CARRIED TO SUMMARY				90,000.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 4</u>				
	<u>INTERNAL WALLING</u>				
	<u>Fine chisel dressed natural stone walling bedded and joined in cement and sand (1:3) mortar as described in:-</u>				
A	150mm thick walling reinforcement with and including hoop iron in every alternate course.	79	SM	450	35,550.00
B	Ditto but in precast concrete blocks	8	SM	550	4,400.00
	<u>Horizontal damp proof; one layer of 3 ply bituminous felt or other equal and approved (measured net- allow for laps)</u>				
C	200mm wide leveled and bedded in cement and sand (1:3) mortar under walls.	26	LM	450	11,700.00
D.	Pair of 250mmx250mmx3mm thick precast permanent vent fitted with mosquito gauze	18	No.	200	3,600.00
	TOTAL FOR ELEMENT NO. 04 INTERNAL WALLING CARRIED TO SUMMARY				55,250.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 05</u>				
	<u>ROOFING</u>				
	<u>All timber to be sawn cypress seasoned to an equilibrium moisture content of between 9% and 15% and to the requirement of k.s. 02771 of 1991 treated with approved wood preventative.</u>				
A	100 x 50mm wall plate on and including 10mm cement and sand (1:4) mortar bed secured, on reinforced concrete ring beams (m.s) by mild steel anchor bolts	50	LM	220	11,000.00
	<u>The following in nailed timber trusses including hoisting and placing 3000mm above floor slab level</u>				
B	100x 50mm rafters.	158	LM	250	39,500.00
C	100x 50mm tie beams	88	LM	220	19,360.00
D	100x 50mm strut/ties.	211	LM	220	46,420.00
	<u>INDEPENDENT MEMBERS</u>				
E	75 x 50mm purlins	269	LM	200	53,800.00
	<u>ROOF COVERING</u>				
F	Pre-painted Gauge 28 IT BP 760 Profiled sheet covering fixed on timber purlins(M.S)	242	SM	1,500	363,000.00
G	Gauge 28 ridge cap	27	LM	900	24,300.00
	<u>RAIN WATER GOODS</u>				
	<u>Gauge 22 galvanized mild steel sheeting: all welds ground smooth:</u>				
H	150mmx100mm box gutter including soldered joints in the running length fixed to fascia board with and including brackets at 1.0m centres.	53	LM	500	26,500.00
I	Extra over gutter for blocked ends with 100mm	8	NO	400	3,200.00
J	Ditto for 100mm diameter outlet.	4	NO	400	1,600.00
K	Ditto for 90° degrees bends.	4	NO	350	1,400.00
L	100mm dia rainwater down pipe fixed with and including mild steel brackets at 900mm centres plugged and screwed to wall.	16	LM	400	6,400.00
M	Extra over for swan neck bend	4	NO	300	1,200.00
N	Ditto horse shoe bend	4	NO	200	800.00
	TOTAL CARRIED TO COLLECTION				598,480.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<u>WROT CYPRESS</u>				
A	25 x 225mm fascia board fixed to end of rafters (m.s)	53	LM	300	15,900.00
B	25 x 225mm barge board fixed to the end of battens.	20	LM	300	6,000.00
	<u>SUNDRIES</u>				
C	12mm diameter x 250mm long black mild steel anchor bolt embedded in ring beam at 1200mm centers including drilling holes in timber complete with bolts washers.	44	No.	400	17,600.00
D	100 x 100 x 6mm thick galvanized mild steel nailing cleat once bent to form angle ten times drilling; one flange nailed to foot of rafter (m.s) other nailed to top of wall plate (m.s)	34	No.	450	15,300.00
	<u>PAINTING</u>				
	<u>Prime only back of wood before fixing</u>				
E.	Surface 100 – 200mm girth.	50	LM	200	10,000.00
	<u>knot prime stop and prepare and apply one under coat and two finishing coats of gloss oil paint (a.bd) to:</u>				
F.	General surface of wood 200 – 300 mm girth.	73	LM	200	14,600.00
	Total carried to collection below				79,400.00
	COLLECTION				
	Brought forward from page 3BL/08				598,480.00
	Brought forward from page 3BL/09 above				79,400.00
	TOTAL FOR ELEMENT NO.05 ROOFING CARRIED TO SUMMARY				677,880.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 06</u> <u>WINDOWS</u>				
A	200mm x 100mm x 75mm average throated concrete windows cill finished smooth in red oxide plaster to surfaces.	16	LM	750	12,000.00
	<u>The following in celcured cypress timber</u>				
B	150mm x 50mm frame plugged to walls	84	LM	550	46,200.00
C	25x 25mm wrot louver stopper.	13	LM	300	3,900.00
D	25mm x 25mm Quadrant	53	LM	300	15,900.00
E	50mm x 25mm architrave	53	LM	350	18,550.00
F	50mmx50mmx25mm mesh wire fixing bead	84	LM	250	21,000.00
G	12mm diameter burglar proofing bars including fixing.	104	LM	400	41,600.00
H	Coffee tray wire mesh fixed to window frame with timber beading.	16	SM	450	7,200.00
I	Mosquito wire gauge fixed to timber frame	16	SM	700	11,200.00
J	Weld mesh ditto	16	SM	550	8,800.00
K	Bore 12mm diameter holes through 50mm thick windows frame	312	NO	300	93,600.00
L	Extra over bar for stopped end stop	160	NO	200	32,000.00
	<u>PAINTING</u>				
M	Prepare, knot prime and apply one undercoat and two finishing coats crown or other approved paint on surfaces 100-300mm girth	84	LM	150	12,600.00
N	Ditto not exceeding 100mm girth.	190	LM	200	38,000.00
O	Prepare and apply one coat wood primer to back of window frame 200 - 200mm.	84	LM	200	16,800.00
P	Prepare surface and apply three coats crown paint to burglar proofing bars not exceeding 100mm	203	LM	100	20,300.00
	TOTAL CARRIED TO COLLECTION				399,650.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
A	Pair of Approved Aluminium adjustable louver jambs with clips for 8 No. 150mm wide 5mm thick louver blades (ms).	23	Prs	500	11,500.00
B	700X150X5mm clear louver blade with polished edge.	8	No.	650	5,200.00
C	Ditto 600x150x5mm	128	No.	500	64,000.00
D	400x 150 x 5mm ditto	24	No.	450	10,800.00
E	200mmx 150mm ditto obscured	16	No.	400	6,400.00
	<u>Pelmet boxes</u> <u>The following in Pelmet boxes sawn celcured cypress</u>				
F	50x50mm bearer plugged	16	LM	600	9,600.00
	<u>Wrot cypress as described</u>				
G	125x 25mm thick pelmet fascia with two labours	16	LM	500	8,000.00
H	125x 25mm thick top	16	No.	300	4,800.00
I	125x 125x25mm thick boxed end cut to profile	20	No.	200	4,000.00
	<u>Curtains tracks</u>				
J	Standard 1- section aluminium sliding track screwed to soffits of pelmet with fixing brackets, runner, end stop, laps and complete accessories to approval	16	LM	800	12,800.00
	<u>PAINTING</u>				
K	Prime back of timber surface not exceeding 100mm girth with aluminium primer before fixing.	16	LM	200	3,200.00
L	Prepare and apply three coats of crown or other approved paint to general surfaces of wood	6	LM	200	1,200.00
	Total Carried to Collection				141,500.00
	<u>COLLECTION</u>				399,650.00
	Brought forward from page 3BL/10				141,500.00
	Brought forward from page 3BL/11 above				541,150.00
	TOTAL CARRIED TO COLLECTION				541,150.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 07</u>				
	<u>DOORS</u>				
	<u>Frames and finishing</u>				
	<u>Wrot cypress timber door frames</u>				
A	150 x 50mm f frame once rebated	46	LM	550	25,300.00
B	50 x 25mm Architrave	46	LM	550	25,300.00
C	25x 25mm finished Quadrant	46	LM	550	25,300.00
	<u>Flush Timber Doors</u>				
D	<u>45mm thick semi –solid core flush door</u> Door size 900mm x 2100mm with moulded panel Mahogany veneer both sides	6	NO	10,000	60,000.00
E	Ditto 45mm thick wrot hardwood solid panel door overall size 1150x2100mm high double leave	1	NO	30,000	30,000.00
F	Ditto 45mm thick wrot hardwood solid panel door overall size 900x2100mm high double leave	1	NO	15,000	30,000.00
	Ironmongery is to ' union' catalogue or unless otherwise specified				
G	Three lever rebated mortise lock complete with approve lever handle furniture.	3	NO	2,000	6,000.00
H	Two lever mortise locks complete with approved level handle furniture.	6	NO	1,500	9,000.00
J	100mm brass butt hinges.	20	PRS	500	10,000.00
	<u>Door stoppers</u>				
K	40mm diameter rubber door stopper fixed to wall or floor with approved raw bolt.	10	NO	270	2,700.00
	TOTAL CARRIED TO COLLECTION				223,600.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
	<u>PAINTING</u>				
	<u>Prime only back of frame with aluminium or other equal and approved primer before fixing as described to:-</u>				
A	Frames; surfaces not exceeding 100mm girth	84	LM	300	25,200.00
B	Ditto 100mm to 200mm girth	43	LM	300	12,900.00
	<u>Prepare, knot, prime, stop and apply 2-pack polyurethane H/B first grade varnish.</u>				
C	General surfaces of wood	35	SM	200	7,000.00
D	Ditto 200-300mm girth	43	LM	300	12,900.00
E	Ditto not exceeding 100mm girth	84	LM	200	16,800.00
	TOTAL CARRIED TO COLLECTION				74,800.00
	Brought forward from page 3BL/13				223,600.00
	Brought forward from above				74,800.00
	TOTAL ELEMENT NO. 07 DOORS CARRIED TO SUMMARY				298,400.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 08</u>				
	<u>FINISHES</u>				
	<u>Floor Finishes</u>				
A	<u>Cement and sand (1:4) screed as described</u> 30mm thick cement and sand (1:4) finished to receive ceramic tiles.	125	SM	650	81,250.00
B	<u>Ceramic non-slip tiles</u> 300mm 300mmx 8mm as manufactured by SAJ CERAMICS LTD or other equal and approved coloured ceramic non-slip floor bedded as per manufacturer's instructions	125	SM	1,450	181,250.00
C	100mm high skirting	132	LM	850	112,200.00
	<u>Wall finishes</u>				
D	<u>Two coats gauged cement lime and sand (1:2:9) plaster steel trowelled smooth</u> 20mm (minimum) thick to natural stone walls internally	417	SM	650	271,050.00
E	20mm render in cement / sand (1:3) to walls and concrete beams externally.	51	SM	450	22,950.00
F	Ditto externally but wood float finished keyed horizontal joint and flash vertical joints to walls externally.	156	SM	450	70,200.00
	<u>Ceiling finishes</u>				
	<u>Lining</u>				
G	12mm thick celotex ceiling on brandering (m.s) and set in systematic V-joints.	125	LM	1,200	150,000.00
H	Extra over for trap doors size 800 x 800mm complete	2	NO	530	1,060.00
	<u>Sawn Cypress</u>				
I	75 x50mm brandering	437	LM	300	131,100.00
J	50 x 50mm brandering	183	LM	200	36,600.00
	TOTAL CARRIED TO COLLECTION				1,057,660.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
A	<u>Wrot Cypress</u> 12 x 100mm curved cornice plugged	183	LM	350	64,050.00
B	<u>Painting</u> <u>Prime only back of frame with aluminium or other equal and approved primer before fixing as described to;</u> Timber; surface not exceeding 100mm girth	183	LM	200	36,600.00
C	<u>Knot prime stop and prepare and apply one undercoat and two finishing coats gloss oil Crown paints to;</u> General surfaces of wood not exceeding 100mm girth	183	LM	250	45,750.00
D	<u>Paint and Decoration</u> <u>Prepared and apply one undercoat and three coats 'crown' or other approved plastic emulsion paint to;</u> Plastered walls internally	417	SM	220	91,740.00
E	Ditto externally	51	SM	200	10,200.00
F	<u>Prepared and apply three coats of washable distemper paints to;</u> Celotex lining internally	125	SM	200	25,000.00
	TOTAL CARRIED TO COLLECTION				273,340.00
	Brought forward from page 3BL/14				1,057,660.00
	Brought down from above				273,340.00
	TOTAL FOR ELEMENT NO. 08 FINISHES CARRIED TO SUMMARY				1,331,000.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT No. 09</u> <u>JOINERY WORKS</u>				
	<u>Base cabinets</u>				
A	Plain concrete (1:3:6) base.	4	SM	1,600	6,400.00
B	100mm thick walling plastered and painted both sides.	4	SM	2,200	8,800.00
C	100mm thick reinforced concrete wall top reinforced with 3no. 12mm diameter square twisted bars and BRC mesh type A 65 with granolithic finish to all exposed surfaces including all formwork.	6	LM	10,000	60,000.00
D	Extra over work top for forming opening for kitchen sink size 1000mmx500mm.	2	NO	1,000	2,000.00
E	75mmx50mm celcured cypress frame.	20	LM	220	4,400.00
F	25mm thick block board in doors	12	SM	650	7,800.00
G	25mm x 13mm hardwood lipping to edge of block board.	16	LM	700	11,200.00
H	Brass piano hinges.	10	LM	500	5,000.00
I	50mm aluminium tower bolts	12	NO	500	6,000.00
J	100mm aluminium 'D' handle.	6	NO	500	3,000.00
K	Approved brass cylinder cupboard door lock.	6	NO	2,200	13,200.00
L	Prepare and apply three coats crown or other approved paint to block board doors and frames generally	26	SM	200	5,200.00
	TOTAL CARRIED TO COLLECTION				133,000.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<u>KITCHEN SHELVES</u>				
A	40mm x 40mm x 3mm mild steel angle iron 450mm overall length with one end split and built 150mm into masonry walling and drilled and counter sunk twice.	18	NO	1,800	32,400.00
B	25mm block board in shelves	4	SM	2,200	8,800.00
C	40mm x 8mm mild steel bolt complete with nut and washer.	36	NO	500	18,000.00
D	Hardwood lipping to edge of block board.	14	LM	950	13,300.00
E	Prepare and apply three coats crown as other approved oil paint to surfaces of block board generally.	6	SM	200	1,200.00
F	Ditto surfaces of metal surfaces not exceeding 100mm girth	6	LM	200	1,200.00
	Total Carried to Collection				74,900.00
	COLLECTION				
	Total from page 3BL/16				133,000.00
	Total from page 3BL/17 above				74,900.00
	TOTAL FOR ELEMENT No. 09 JOINERY WORKS CARRIED TO SUMMARY				207,900.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
	<u>SANITARY FITTINGS</u> <u>Supply, deliver, install and fix the following sanitary fittings including all materials and jointing to supply, waste/soil and overflow pipes. Twyforde Ltd products are specified only as an indication of quality. Equal and approved appliances may be supplied. Where trade names are mentioned, the Ref No. is intended only as a guide to the type and quality of fittings.</u>				
A.	General purpose Squatting W.C Water closet suite ('S' or 'P'-trap) in approved colour complete with horizontal outlet to BS3402; litre valve less cistern fittings including siphon, 15mm diameter side inlet ball valve, 20mm diameter side overflow, plastic flush bend, inlet connection. All to be as Twyforde "Arabian" water closet or equal and approved.	2	NO	15000	30,000.00
B.	Wash hand basin Wash hand basin, size 590x440mm wide in approved colour to BS 3402, complete with the following:- 1) Basin with two tap holes and chain stay hole as "WB 2535 WH" Chrome plated tap handles Aztec pillar taps ½" Ref. No AZ5800CP 2) Chrome plated chain waste Ref. No. 5823CP Wall supports Ref.No SR1319XX as Twyforde "SOLA 590"	2	NO	8000	16,000.00
C	Splash 15mm diameter chrome plated hand spray W.C suite.	2	NO	2000	4,000.00
D	Robe Hook Robe Hook in Satin Aluminum to be mounted by concealed screws to wall wedges. To be as Twyforde Spectrum 2000 accessories or equal and approved	6	NO	2000	12,000.00
	TOTAL CARRIED TO COLLECTION				62,000.00

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (KSHS)
A.	Toilet Roll Holder Fully recessed toilet roll holder in Vitreous China of size 165x165mm in approved colour as Twyford's VC98WH or equal and approved.	NO.	2	2000	4,000.00
B.	Soap Dish Semi recessed built in soap tray in Vitreous China of size : 305x150mm approved colour as Twyford's VC9312WH or equal and approved	NO	2	1500	3,000.00
C.	Mirror 6mm thick polished plate glass silver backed mirror with revealed edges, size 610x610mm, plugged and screwed to wall with 4No. Chrome plated dome capped screws.	NO	2	3000	6,000.00
D.	Toilet Brush and Holder Toilet brush and Holder in vitreous china or equal and approved equivalent	NO	2	2000	4,000.0
E.	Roof Tank Supply and install a plastic water tank of capacity 920 litres (200 gallons) made of plastic on roof space. The tanks to be assembled complete with medium- pressure ball valve inlet, outlet connections and drain cock and all other connections including ball valve and float. Tank shall be mounted on a platform built by others and any other necessary item for its proper functioning. The tank to be "Roto Model" or approved equivalent.	No.	NIL		-
TOTAL CARRIED TO COLLECTION					17,000.00
COLLECTION					62,000.00
Total brought forward from PG CW/05					17,000.00
Total brought forward from PG CW/06 above					
TOTAL FOR SANITARY FITTINGS CARRIED TO SUMMARY OF CIVIL WORKS					79,000.00

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (KSHS)
	<p>1) PLUMBING FITINGS <u>Supply, deliver and install Polypropylene Random (PP-R) PN-20 Oxy-stable pipework to din 8077. pipe jointing shall be by polyfusion or use of electrical coupling.</u> <u>Tenderer must allow for jointing, clippings couplings, metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets sliding and fixed joints, support raceways, isolating sheathes, elastic materials expansion arms and bends, crossovers etc.</u> <u>Where pipework is not chased proper anchoring using approved fixtures shall be done. No pipework shall be left exposed to the sun.</u></p>				
	<u>PPR PIPE</u>				
A.	20mm diameter PPRC pipe	LM	12	100	1,200.00
B.	25mm –Ditto–	LM	8	150	1,200.00
C.	32mm –Ditto–	LM	8	250	2,000.00
					-
	<u>Extra- over PPRC pipework for the following.</u>				-
	<u>Bends/ Elbow</u>				-
D.	50mm dia PPRC bend	No.	2	300	600.00
E.	25mm dia –ditto	No.	5	200	1,000.00
F.	20mm dia-ditto	No.	1	100	100.00
G.	32mm dia -ditto	No.	2	200	400.00
H.	20mm x ½” threaded bend	No.	4	150	600.00
					-
	<u>Tees</u>				-
I.	25mm equal tee	No.	2	100	200.00
J.	32mm –ditto	No.	2	150	300.00
					-
	<u>Reducers</u>				-
K.	25mmx20mm reducer	No.	2	200	400.00
L.	32mm x25mm-ditto	No.	2	250	500.00
					-
	<u>Transition fittings</u>				-
M.	25mmx ½” threaded/transition fittings	No.	2	200	400.00
N.	32mmx1/2” ditto	No.	2	150	300.00
					-
	TOTAL CARRIED TO COLLECTION				9,200.00

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (KSHS)
A.	<u>Gate valve</u> 25mm dia. approved medium pressure screw down full way non-rising stem wedge gate valve to BS1952, with wheel and head joints to tubing. The gate valve to be as “Pegler” or approved equivalent.	No.	1	4,000	4,000.00 - -
B.	25mm- ditto-	No.	4	2,500	10,000.00 -
C.	15mm –ditto-	No.	4	2,000	8,000.00 -
D.	<u>Non-return valve</u> 25mm dia. approved medium pressure non-return valve to BS1952. The non-return valve to be as “Pegler” or approved equivalent.	No.	2	1,800	3,600.00 -
E.	<u>Flexible connections</u> 15mm dia, 300mm long flexible connections including back nuts and jointing to PPRC pipe from sanitary fitting.	No.	13	1,000	13,000.00 -
TOTAL CARRIED TO COLLECTION					38,600.00
<u>COLLECTION</u>					79,000.00
Total brought forward from PG CW/06					9,200.00
Total brought forward from PG CW/07					38,600.00
Total brought forward from PG CW/08 above					
TOTAL FOR SANITARY/PLUMBING FITTINGS CARRIED TO SUMMARY OF CIVIL WORKS					126,800.00

ELECTRICAL INSTALLATION WORKS

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
A	<u>Supply and install lighting points wired in 3 x 1.5mm single core cables drawn in 20mm diameter PVC heavy gauge conduit concealed including all necessary accessories but excluding the lighting fittings and switches.</u>	8	No.	2000	16,000.00
	In one gang one way				-
		6	No.	2000	12,000.00
	In one gang two way.				
B	<u>Supply and install power point wired in 2.5mm² single core cables drawn in 20mm diameter PVC heavy gauge conduits concealed including all necessary accessories but excluding the socket outlet.</u>	15	No.	800	12,000.00
	For twin socket outlet.				
		NIL	No.	0	
	For single socket outlet				
C	Supply and install ceiling fan points wired in 2.5mm ² single core cables drawn in 20mm diameter PVC heavy gauge conduits concealed but excluding the fan.	6	No.	1000	6,000.00
		6	NO	9000	54,000.00
D	Supply and install 24" Ceiling fan complete with the control.				
E	Supply and install the following switches:				
	One gang one way switch.	8	NO	500	4,000.00
	One gang two way switch.	6	NO	500	3,000.00
	Intermediate switch.	2	NO	500	1,000.00
	Total carried forward to collection page EW/03				108,000.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
A	<u>Supply and fix the following lighting fittings:</u>				
	i. 1200mm fluorescent fitting batten complete with tube.	12	No.	1000	12,000.00
	ii. 100 watts spherical ceiling fitting complete with energy saving bulb.	2	No.	800	1,600.00
	iii. 100 watts bulkhead fitting complete with energy saving bulb.	4	No.	1500	6,000.00
B	<u>Supply and install 13Amps switched socket outlets.</u>				
	i. Twin switched socket outlet.	15	No.	500	7,500.00
	ii. Single switched socket outlet.	NIL	No.		
C	Supply and install 6-way Consumer Unit flush mounted as "Havels"	1	No.	15000	15,000.00
D	<u>Supply and fix the following MCBS</u>				
	i. 5Amps MCB	2	No.	500	1,000.00
	ii. 30 Amps MCB	2	No.	500	1,000.00
	iii. 15 Amps MCB	2	No.	500	1,000.00
E	Supply and install cable loop in box complete with 80Amps Cut-Out and Connector.	1	No.	3000	3,000.00
F	Supply and install booster pump including wiring and DP Switch with indicator lamp and flexible cord of 2.5mm ² 3 core.	1	No	1000	1,000.00
	Total carried forward to collection page EW/03				49,100.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
A	Supply and connect 16mm ² 2-Core (PVC SWAPVC) armored underground cable.	20	M	2,500	50,000.00
					-
B	Trenching, laying, lifting and back filling for the underground cable	20	M	100	2,000.00
					-
C	Supply and install 25mm diameter PVC heavy gauge conduit from cable loop-in box to Consumer Unit.	10	M	500	5,000.00
					-
D	Supply and install cable glands for the underground cable.	2	No.	1,000	2,000.00
					-
E	Allow for earthing including 5ft copper earth-rod with clamp, concrete manhole and cover.	-	Lot	5,000	5,000.00
					-
F	Allow for testing and commissioning.	-	Lot	10,000	10,000.00
					-
	<u>TOTAL CARRIED TO COLLECTION</u>				74,000.00
	<u>COLLECTION</u>				
	Brought forward from page EW/01				108,000.00
	Brought forward from page EW/02				49,100.00
	Brought down from above				74,000.00
	TOTAL FOR ELECTRICAL INSTALLATION WORKS CARRIED TO GRAND SUMMARY				231,100.00

ITEM	DESCRIPTION	PAGE NO.	AMOUNT (KSHS)
	<u>SUMMARY</u>		
A	SUBSTRUCTURES	3BL/04	1,032,750.00
B	R.C FRAME	3BL /05	398,850.00
C	EXTERNAL WALLING	3B L /06	90,000.00
D	INTERNAL WALLING	3BL /07	55,250.00
E	ROOFING	3BL /09	677,880.00
F.	WINDOWS	3BL /11	541,150.00
G.	DOORS	3BL /13	298,400.00
H	FINISHES	3BL /15	1,331,000.00
I	JOINERY WORKS	3BL/17	207,900.00
J	SANITARY/PLUMBING FITTINGS	3BL/20	126,800.00
K	ELECTRICAL INSTALLATION WORKS	EW/03	231,100.00
	TOTAL FOR 3 – BEDROOM HOUSE) CARRIED TO GRAND SUMMARY		4,991,080.00

BILL NO. 03: BILLS OF QUANTITIES FOR THE PROPOSED PERIMETER WALL AND GATE HOUSE

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	(BILL NO.2 -PERIMETER WALL)				
	<u>SUBSTRUCTURES</u>				
	<u>(PROVISIONAL)</u>				
	SITE CLEARANCE:				
A	Clear the site of all bushes, shrubs, undergrowth and small trees grab uproot and cart away burn all arising	364	SM	30	10,920.00
B	Prune or uproot selected "mathenge" trees on site, burn or cart away the arising as directed.	-	ITEM	5000	5,000.00
C	Excavate for strip foundation trench not exceeding 1.5m deep starting from reduced level and stockpile on site as directed.	81	CM	300	24,300.00
D	Excavate pit for column/pier bases.	75	CM	300	22,500.00
E	Extra over excavations for excavating in rock.	31	CM	700	21,700.00
F	Allow for maintaining and supporting sides of excavations.	-	ITEM	1000	1,000.00
G	Allow for keeping excavations free of water and mud by pumping, bailing or other approved means	-	ITEM	1000	1,000.00
H	Chemical anti-termite treatment (approved) on foundations.	109	SM	300	32,700.00
	TOTAL CARRIED TO COLLECTION				119,120.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
A	Return, fill and ram selected excavated material around foundations.	109	CM	200	21,800.00
B	Load, wheel and deposit surplus material where directed not exceeding 50m away	47	CM	200	9,400.00
	<u>Concrete work</u> <u>Mass concrete 1:3:6 as described in:-</u>				
C	50mm blinding <u>Vibrated, reinforced concrete 1:2:4 as described in:</u>	129	SM	250	32,250.00
D	Strip foundations	22	CM	550	12,100.00
E	Column/pier bases	18	CM	450	8,100.00
F	Foundation columns.	4	CM	550	2,200.00
	<u>Reinforcement mild steel square twisted reinforcement in structural concrete work</u>				
G	8mm diameter bars	456	KGs	220	100,320.00
H	10mm diameter bars	1578	KGs	200	315,600.00
I	12mm diameter bars	NIL	KGs	0	
	<u>Sawn formwork to:-</u>				
J	Sides of vertical columns and column/pier bases.	89	SM	450	40,050.00
	TOTAL CARRIED TO COLLECTION				541,820.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<u>Walling in natural coursed stone from an approved quarry: jointed in 1:3 mortar</u>				
A	200mm thick wall in foundation	218	SM	400	87,200.00
B	Extra over walling for stone piers size 400x 200x 1000mm high as before described.	NIL	SM	0	
C	Allow for diameter 150mm weeps holes as directed.	20	NO	300	6,000.00
D	12mm cement/sand 1:3 plinth render on concrete or masonry walls both sides.	146	SM	300	43,800.00
E	Prepare and apply 2 coats of bituminous paint to rendered surfaces.	146	SM	200	29,200.00
	Total carried to collection				166,200.00
	<u>ELEMENT NO.1</u> <u>SUBSTRUCTURES</u> <u>COLLECTION</u>				
	Total brought forward from page BW/01				119,120.00
	Total brought forward from page BW/02				541,820.00
	Total brought forward from above page BW/03				166,200.00
	TOTAL FOR SUBSTRUCTURES CARRIED TO SUMMARY				827,140.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<u>2.R. C</u>				
	<u>FRAMEWORK&SUPERSTRUCTURE</u>				
A	<u>WALLING</u> Vibrated reinforced concrete (1:2:4) in columns (200X400mm).	13	CM	10000	130,000.00
B	Ditto in beams	11	CM	10000	110,000.00
	<u>Square twisted M.S reinforcement in structural concrete work</u>				
C	8mm diameter bars	760	KGs	200	152,000.00
D	10mm diameter bars	961	KGs	180	172,980.00
E	Sawn formwork to sides of columns and beams	326	SM	200	65,200.00
	<u>Walling in dressed natural stone</u>				
F	200mm thick walling.				
G	Raking and cutting 200mm thick stone walling for slope.	531	SM	300	159,300.00
H	75mm thick In-situ concrete coping on top of walling, stone piers columns as directed.	NIL	LM	0	
		177	LM	300	53,100.00
	<u>FINISHES</u>				
	Extra overdressed stone walling for neat recessed horizontal key in cement/sand (1:3) mortar both sides.				
		780	SM	200	156,000.00
	25mm thick cement/sand render with wood float finish on concrete beams and columns.				
		282	SM	450	126,900.00
	Prepare and apply one undercoat and two finishing coats exterior quality plastic emulsion paint on rendered concrete surfaces and coping stones.				
		282	SM	300.00	84,600.00
	Ditto but 1 st quality gloss oil paint on general surfaces of metalwork(square hollow section steel grills)				
		NIL	SM	-	
	<u>Razor wire</u>				
	Supply and fix coiled 450mm diameter stainless razor wire on top of walling.	-	ITEM	5,000.00	- 5,000.00
	TOTAL FOR FRAMEWORK/WALLING CARRIED TO SUMMARY				1,215,080.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
A	<p><u>GATES</u> Provide all materials and fabricate double gate overall size 5.0m x 2.0m high comprising of 40x 25 mm x 3mm hollow section main frame and middle rail with 25x 25mm x 3mm hollow section vertical rails welded at 200mm centres including one coat red oxide under coat and two coats external quality crown paint and mounted appropriately on to 2No. 300mm x 300mm x 3000mm overall height concrete 1:2:4 (20mm) reinforced with 4No. 12mm square twisted mild steel bars and 6mm stirrups at 200mm centres including 1200m x 1200mmx250mm thick concrete (1:2:4) (20mm) bases reinforced with 12mm square twisted reinforcement bars both ways at 200mm centres including all excavations formwork and rendering to all exposed surfaces and painting in crown external quality paint including formwork</p>				
B	Ditto size 3.0 x 2.0m.	1	NO	100,000	100,000.00
C	Ditto pedestrian gate 1000mm wide mounted on R.C columns to the approval of the Project Manager..	1	NO	50,000	50,000.00
		1	NO	14,000	14,000.00
	TOTAL FOR FINISHES/GATES CARRIED TO SUMMARY				164,000.00

BW/05

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<p data-bbox="245 310 657 380"><u>SUMMARY OF ELEMENTS</u> <u>PERIMETER WALL</u></p> <p data-bbox="245 415 675 453">A Substructures from page BW/03</p> <p data-bbox="245 520 894 558">B Framework/Walling/Finishes from page BW/04</p> <p data-bbox="245 625 570 663">C Gates from page BW/05</p>				<p data-bbox="1308 415 1455 453">827,140.00</p> <p data-bbox="1299 485 1464 522">1,215,080.00</p> <p data-bbox="1308 554 1455 592">164,000.00</p>
	TOTAL FOR PERIMETER WALL CARRIED TO GRAND SUMMARY				2,206,220.00

BILL NO.4: BILLS OF QUANTITIES FOR THE PROPOSED GATE HOUSE

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 1: SUB-STRUCTURES</u> <u>ALL PROVISIONAL</u> <u>NOTE:</u> All work measured under this element is up to and including the floor slabs but excluding the finishes thereon: - <u>SITE CLEARANCE:</u>				
A	Clear the site of all bushes, shrubs, undergrowth and small trees grab uproot and cart away burn all arising.	36	SM	50	1,800.00
B	Excavate over site average 250mm deep to remove vegetable soil load up wheel and cart away.	19	SM	100	1,900.00
C	Excavate for strip foundation trenches not exceeding 1.5m deep commencing from reduced level.				
	Allow for keeping excavations free from mud and all water including spring and running water by pumping pailing or other approved means.	12	CM	300	3,600.00
D	Allow for planking and strutting to sides of excavations.	-	ITEM	2000	2,000.00
E	<u>DISPOSAL</u> Load surplus excavated material and cart away from site.	-	ITEM	2000	2,000.00
F	<u>FILLING:</u> Return in and ram selected excavated material around foundations.	15	CM	200	3,000.00
G	<u>HARDCORE AS DESCRIBED:</u> 300mm approved hardcore filling including leveling consolidating and or hand packing in two layers.	7	CM	200	1,400.00
H	<u>BLINDING:</u> 50mm thick layer murrum or other equal and approved blinding to the surface of hardcore; rolled smooth to receive polythene sheeting's (m.s.)	7	CM	1000	7,000.00
I		17	SM	150	2,550.00
	TOTAL CARRIED TO COLLECTION				25,250.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
A	<u>INSECTICIDE TREATMENT</u> 'Termidor' or other equal and approved chemical insecticide treatment prepared and applied according to the manufacturer's printed instructions.	13	SM	300	3,900.00
B	<u>REMOVE OF TERMITES NESTS</u> Remove termite's nests by approved means and destroy the termites by applying 'termidor' or other equal and approved chemicals as per the manufacturers printed instructions.	-	ITEM	5000	5,000.00
C	<u>DAMP PROOF MEMBRANE</u> 500 gauge polythene or other equal and approved plastic sheets damp proof membrane laid over blinding (measured net – allow for laps)	16	SM	150	2,400.00
D	<u>IN-SITU CONCRETE WORK</u> <u>MASS CONCRETE (1:4:8/38-38mm AGGREGATE)</u> 50mm thick blinding under foundations	17	SM	500	8,500.00
E	<u>VIBRATED REINFORCED CONCRETE (1:2:4/20-20MM) AGGREGATE AS DESCRIBED</u> <u>IN:-</u> Strip foundations	2	CM	10000	20,000.00
F	Columns	1	CM	10000	10,000.00
G	100mm thick floor slab (1:2:4)	16	SM	1000	16,000.00
H	<u>STEEL REINFORCEMENT</u> <u>Supply and fix bar/rod reinforcement including bending hooks trying wire cutting spacer and supporting all in position as described.</u> <u>High tensile square twisted bars to B.S. 4461</u> 12mm diameter	52	KG	100	5,200.00
I	10mm diameter	53	KG	100	5,300.00
J	<u>Mild steel rod to B.S. 4449</u> 8mm diameter	49	KG	100	4,900.00
	TOTAL CARRIED TO COLLECTION				81,200.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<u>MESH REINFORCEMENT</u>				
A	Fabric mesh reinforcement to B.S. 4484 ref. A14 including laps trying wire and spacer blocks complete (measure net allow for lap)	16	SM	500	8,000.00
	<u>SAWN FORMWORK AS DESCRIBED TO:</u>				
B	Vertical sides of foundation	NIL	LM	0	
C	Edges of floor slabs 75 - 150mm high	16	LM	150	2,400.00
	<u>FOUNDATION WALLING</u>				
D	200mm thick rough chiseled natural stone walling bedded and joined in cement and sand (1:3) mortar and reinforced with and including hoop iron in every alternate course.	21	SM	1800	37,800.00
	<u>PLINTH AREA FINISHES</u>				
E	12mm thick cement and sand (1:3) wood float render to plinth area.	6	SM	400	2,400.00
F	Prepare and apply three coats black bitumastic paints to rendered area.	6	SM	350	2,100.00
	<u>PAVING SLABS</u>				
G	600mmx 600mmx50mm thick in-situ concrete paving slabs laid on compacted murrum and pointed in cement and sand (1:3) mortar.	8	SM	600	4,800.00
	Total carried to collection below				57,500.00
	<u>COLLECTION</u>				
	Brought forward page SD/01				25,250.00
	Brought forward page SD/02				81,200.00
	Brought down from above				57,500.00
	TOTAL FOR ELEMENT NO. 01 SUBSTRUCTURES CARRIED TO SUMMARY				163,950.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 02</u> <u>R.C. FRAME</u>				
	<u>Pre-cast Concrete (1:2:4/20) Class 25/20 finished fair faced; including moulds necessary reinforcement bars: bent and hooked at ends; hoisting; bedding joined and pointed in cement and sand (1:4) mortar as described.</u>				
A	100 x 200mm ring beam lintels	1	CM	10000	10,000.00
	<u>Vibrated reinforced concrete (1:2:4/20-25 – 20mm aggregates) as described in:-</u>				
B	R.C. Columns	1	CM	10000	10,000.00
C	Ring Beams	1	CM	10000	10,000.00
	<u>Steel reinforcement</u> <u>Supply and Fix steel bar/rod reinforcement including bending hooks trying wire cutting spacer blocks and supporting all in position.</u>				
	<u>High Tensile square twisted bars to B.S. 4461 as described in:-</u>				
D	12mm diameter	89	KG	200	17,800.00
E	10mm diameter	NIL	KG	0	
	<u>Mild Steel rods to B.S. 4449 as described in:-</u>				
F	8mm diameter	35	KG	200	7,000.00
	<u>Sawn Form Works as described to:-</u>				
G	Side and soffits to ring beams	14	SM	1000	14,000.00
H	Side and soffits to ring columns	7	SM	1000	7,000.00
	TOTAL FOR ELEMENT NO. 2 R.C. FRAME CARRIED TO SUMMARY				75,800.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 03 :WALLING</u>				
	<u>EXTERNAL WALLING</u>				
	<u>FINE CHISEL DRESSED NATURAL STONE WALLING BEDDED AND JOINED IN CEMENT AND SAND (1:3) MORTAR AS DESCRIBED:-</u>				
A	200mm thick reinforcement with and including hoop iron in every alternate.	50	SM	1200	60,000.00
	<u>HORIZONTAL DAMP PROOF COURSE; ONE LAYER OF 3PLY BITUMINOUS FELT OR OTHER EQUAL AND APPROVED (MEASURED NETT-ALLOW FOR LAPS)</u>				
B	200mm wide leveled and bedded in cement and sand (1:3) mortar under walls.	15	LM	300	4,500.00
	<u>SUNDRIES</u>				
C	Labour and material for 200mm wide x 230mm (average) high eaves filling to top of 200mm wall.	15	SM	400	6,000.00
D	Fair raking cutting on top of 200mm wall.	3	LM	150	450.00
E	Pair of 250 x 250mm permanent vents	5	NO	300	1,500.00
	<u>INTERNAL WALLING</u>				
	<u>FINE CHISEL DRESSED NATURAL STONE WALLING BEDDED AND JOINED IN CEMENT AND SAND (1:3) MORTAR AS DESCRIBED IN:-</u>				
F	200mm thick walling reinforcement with and including hoop iron in every alternate course.	16	SM	1200	19,200.00
	<u>HORIZONTAL DAMP PROOF; ONE LAYER OF 3 PLY BITUMINOUS FELT OR OTHER EQUAL AND APPROVED (MEASURED NETT- ALLOW FOR LAPS)</u>				
G	200mm wide leveled and bedded in cement and sand (1:3) mortar under walls.	6	LM	300	1,800.00
	TOTAL FOR ELEMENT NO. 3 : WALLING CARRIED TO SUMMARY				93,450.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 04: ROOFING</u> <u>All timber to be sawn cypress seasoned to an equilibrium moisture content of between 9% and 15% and to the requirement of K.S. 02771 of 1991 treated with approved wood preservative.</u>				
A	100 x 50mm wall plate on and including 10mm cement and sand (1:4) mortar bed secured, on reinforced concrete ring beams (m.s) by mild steel anchor bolts (m.s)	9	LM	350	3,150.00
	<u>The following in nailed timber trusses including hoisting and placing 3000mm above floor slab level</u>				
B	100 x 50mm rafters.	46	LM	300	13,800.00
C	100 x 50mm tie beams	16	LM	300	4,800.00
D	75 x 50mm strut/ties.	27	LM	300	8,100.00
	<u>INDEPENDENT MEMBERS</u>				
E	75 x 50mm purlins	39	LM	225	8,775.00
	<u>ROOF COVERING</u>				
	<u>Covering in Main Block and Waiting Area</u>				
F	Gauge 28 "GGI" pre-painted sheet roofing fixed on purlins (m.s.)	34	SM	1150	39,100.00
G	Gauge 30 ridge capping to match covering	10	LM	1000	10,000.00
	<u>WROT CYPRESS</u>				
H	25 x 255mm fascia board fixed to end of rafters (m.s)	25	LM	500	12,500.00
I	25 x 255mm barge board fixed to the end of battens.	7	LM	500	3,500.00
	<u>SUNDRIES</u>				
J	12mm diameter x 250mm long black mild steel anchor bolt embedded in ring beam at 1200mm centers including drilling holes in timber.	9	NO	450	4,050.00
K	100 x 100 x 6mm thick galvanized mild steel nailing cleat once bent to form angle ten times drilling; one flange nailed to foot of rafter (m.s) other nailed to top wall plate (m.s)	9	NO	300	2,700.00
	<u>PAINTING</u>				
	<u>PRIME ONLY BACK OF WOOD BEFORE FIXING</u>				
L	Surface 100 – 200mm girth.	9	LM	70	630.00
	<u>Knot prime stop and prepare and apply one under coat and two finishing coats of gloss oil paint to:-</u>				
M	General surface of wood 200 – 300 mm girth.	25	LM	100	2,500.00
	TOTAL FOR ELEMENT NO. 04 ROOFING CARRIED TO SUMMARY				113,605.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 05: WINDOWS</u>				
A	1700mm long x 100mm x 75mm average throated windows sills.	3	LM	300	900.00
	<u>HARD WOOD FRAMES</u>				
B	100x50mm rebated wrot mahogany window frames with rounded edges	15	LM	500	7,500.00
C	25mm Quadrant	8	LM	100	800.00
D	40 x 20mm Architrave	8	LM	200	1,600.00
E	20 x 10mm wrot louver stopper.	8	LM	100	800.00
F	12mm diameter burglar proofing bars including fixing.	31	LM	200	6,200.00
G	Coffee tray wire mesh fixed to window frame with timber beading.	3	SM	400	1,200.00
H	Mosquito wire gauge fixed to timber frame	3	SM	400	1,200.00
I	Weld mesh ditto	3	SM	500	1,500.00
J	Bore 12mm diameter holes through 50mm thick windows frame	64	NO	30	1,920.00
	<u>PAINTING</u>				
K	Prepare knot prime and apply one undercoat and two finishing coats of gloss painting frames 100-200mm girth.	15	LM	80	1,200.00
L	Ditto -100mm high	24	LM	40	960.00
M	Prepare and apply one coat wood prime to back of window frame 100 - 200mm.	15	LM	35	525.00
	<u>GLAZING</u>				
N	Anaco adjustable louver jambs with clips for 8 No. 150mm wide c 5mm thick louver blades.	4	PRS	1200	4,800.00
O	Ditto but 4No. blades	NIL	PRS	0	
P	600 x 150 x 5mm clears louver blades with polished edge.	32	NO	600	19,200.00
Q	Ditto but obscure	NIL	NO	0	0.00
	TOTAL CARRIED TO COLLECTION				50,305.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	AMOUNT (KSHS)
	<u>Pelmet boxes</u> <u>The following in Pelmet boxes wrot celcured cypress:-</u>				
A	50 x 50 mm bearer plugged Wrot cypress as described	5	LM	200	1,000.00
B	125 x 25mm thick pelmet fascia with two labours	5	NO	200	1,000.00
C	125 x 25mm thick top	5	NO	200	1,000.00
D	150 x 25 x 150mm thick boxed end cut to profile	8	NO	100	800.00
	<u>Curtains tracks</u>				
E	Standard 1 – section heavy duty brass curtain track screwed to soffits of pelmet to (m.s) with fixing brackets runners end stops laps and complete accessories to approval.	5	LM	500	2,500.00
	<u>PAINTING</u>				
	<u>Prime only back of wooden surfaces with aluminium or other equal and approved primer before fixing</u> Surface exceeding 100mm but not exceeding 200mm girth				
F	Surface not exceeding 100mm girth	5	LM	60	300.00
G	<u>Prepare and apply three coats of clear polyurethane varnish to:-</u> General surface of wood exceeding 100mm but not exceeding 200mm girth	5	LM	30	150.00
H	Surfaces not exceeding 100mm girth	18	LM	120	2,160.00
I	<u>Prepare and apply one coat and two finishing gloss oil paint to:</u> General surfaces of metal burglar proofing external and internally	24	LM	60	1,440.00
J		6	SM	400	2,400.00
	Total carried to collection below				12,750.00
	<u>COLLECTION</u>				
	Brought forward from page SD/07				50,305.00
	Brought forward from above				12,750.00
	TOTAL FOR ELEMENT NO. 05 WINDOWS CARRIED TO SUMMARY				63,055.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 06:DOORS</u>				
	<u>Steel doors</u> <u>Supply assemble and fix the following purpose made mild steel casement window cum door standard metal section from approved manufacturer complete with frames transoms mullions and with and including permanent ventilators comprising "T" bar gauze and 16 gauge sheet metal hood 50mm high x 50mm projection to full width of window cum door coupling mullions approved ironmongery and one coat manufacturer's primer, all welding ground to smooth finish.</u>				
	Steel for glazing with putty lugs to two jambs cutting and pinning to concrete or block-work fixing to head and sill with screws plugging.				
A	Door cum window size 900mm x 2100mm in gauge 16 steel sheets.	2	NO	20000	40,000.00
B	Supply and fix grill to arches opening made of 25mm x 25mmx3mm thick (2.07kg/m) square hollow section tubes welded at 200mm centres both ways including all iron mongeries.	NIL	SM	0	
	<u>Iron Mongery</u> <u>Supply and fix the following iron monger with matching screw to wood and/or (where applicable) metal:- Iron mongery is to 'union' catalogue unless otherwise specified</u>				
C	Three lever rebated mortise lock complete with approved brass lever handle furniture	NIL	NO	0	
D	100mm pressed brass hinges	NIL	PRS	0	
	TOTAL CARRIED TO COLLECTION				40,000.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
A	Door stoppers 40mm diameter rubber door stopper fixed to wall or floor with approved raw bolt.	2	NO	250	500.00
	<u>PAINTING</u> <u>Prime only back of frame with aluminium or other equal and approved primer before fixing as described to:-</u>				
B	Frames; surfaces not exceeding 100mm girth <u>Knot prime stop and prepare and apply one undercoat and two coats gloss oil paints to:-</u>	NIL	LM	0	
C	General surface of wood internally	NIL	SM	0	
D	General surfaces of wood 100 – 200mm girth internally	NIL	LM	0	
E	Prepare and apply three coats high gloss on steel surfaces (doors)	10	SM	400	4,000.00
F	Prepare and apply two finishing coats gloss oil paint (crown or other equal and approved) to general services of metal grilles measured flat overall.	NIL	SM	0	
	TOTAL CARRIED TO COLLECTION BELOW				4,500.00
	<u>COLLECTION</u>				
	Brought forward from page SD/09				40,000.00
	Brought forward from above				4,500.00
	TOTAL FOR ELEMENT NO. 06 DOORS CARRIED TO SUMMARY				44,500.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 07: FINISHES</u>				
	<u>Floor Finishes</u>				
	<u>Cement and sand (1:4) screed as described</u>				
A	38mm thick backing steel trowelled smooth	16	SM	450	7,200.00
B	20 x 100mm high skirting rounded at top edge and curved at junction with floor	12	LM	200	2,400.00
	<u>Wall finishes</u>				
	<u>Two coats gauged cement lime and sand (1:2:9) plaster steel trowelled smooth</u>				
C	12mm (minimum) thick to natural stone walls internally	110	SM	400	44,000.00
	<u>Ceiling finishes</u>				
	<u>Lining</u>				
D	25mm thick chipboard ceiling on brandering (m.s) and set in systematic V-joints.	110	SM	400	44,000.00
E	Extra over for trap doors size 600 x 600mm complete	1	NO	3,000	3,000.00
	<u>Sawn Cypress</u>				
F	75 x 50mm brandering plugged	36	LM	220	7,920.00
G	50 x 50mm brandering	58	LM	150	8,700.00
	<u>Wrot Cypress</u>				
H	12 x 100mm curved cornice plugged	36	LM	200	7,200.00
	<u>Painting</u>				
	<u>Prime only back of frame with aluminium or other equal and approved primer before fixing as described to;</u>				
	Timber; surface not exceeding 100mm girth				
I	<u>Knot prime stop and prepare and apply one undercoat and two finishing coats gloss oil paints to;</u>	36	LM	30	1,080.00
	General surfaces of wood not exceeding 100mm girth	36	LM	40	1,440.00
J	<u>Paint and Decoration</u>				
	<u>Prepare and apply one undercoat and three coats plastic emulsion paint to;</u>				
	Plastered wall internally	64	SM	250	16,000.00
K	<u>Prepare and apply one undercoat and three coats plastic emulsion paint to;</u>				
	Plastered ring beam externally	43	SM	200	8,600.00
L	<u>Prepare and apply three coats of washable distemper paints to;</u>				
M	Celotex lining internally	13	SM	250	3,250.00
	TOTAL FOR ELEMENT NO. 07 FINISHES CARRIED TO SUMMARY				154,790.00

ITEM	DESCRIPTION	AMOUNT (KSHS)
	<u>SUMMARY</u> <u>GATE HOUSE</u> <u>ELEMENTS</u>	
1.	SUBSTRUCTURES FROM PAGE SD/03	163,950.00
2.	R.C. FRAME FROM PAGE SD /04	75,800.00
3.	WALLING FROM PAGE SD /05	93,450.00
4.	ROOFING FROM PAGE SD /06	113,605.00
5.	WINDOWS FROM PAGE SD /08	63,055.00
6.	DOORS FROM PAGE SD /10	44,500.00
7.	FINISHES FROM PAGE SD /11	154,790.00
	TOTAL FOR BILL NO. 2: GATE HOUSE CARRIED TO GRAND SUMMARY	709,150.00

**BILL NO. 05: BILLS OF QUANTITIES FOR PROPOSED 50M³ UNDERGROUND WATER
TANK**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO. 1</u> <u>SUBSTRUCTURES</u> <u>(ALL PROVISIONAL)</u> 1No. Water Tank Ø 5m depth 3.0m				
A	Clear site of all grass and small trees not exceeding 600mm girth and cart away or burn arising.	76	SM	100	7,600.00
B	Excavate pit not exceeding 1.5m deep.	68	CM	500	34,000.00
C	Ditto starting from 1.5m deep.	36	CM	350	12,600.00
D	Excavate over all kinds of excavation for excavating in rock irrespective of class.	36	CM	550	19,800.00
E	Allow for keeping excavations free from all water by pumping or otherwise.	-	ITEM	8,000	8,000.00
F	Ditto for planking and strutting to sides of excavations.	-	ITEM	8,000	8,000.00
	Disposal				
G	Return fill and ram selected excavated material around foundations.	53	CM	930	49,290.00
H	Load, wheel and cart away from site surplus excavated material and deposit in approved dumping area.	51	CM	900	45,900.00
	Imported filling				
I	300mm thick (average) approved broken quarry stone hardcore filling in two equal layers well compacted.	25	SM	2,200	55,000.00
J	50mm thick stone dust blinding to surfaces of hardcore.	25	SM	2,200	55,000.00
K	50mm plain concrete (1:4:8 class 15/20mm) blinding to foundation base	25	SM	1,650	41,250.00
	Vibrated reinforced concrete class 25 in				
L	300mm raft foundation slab	25	SM	1,800	45,000.00
M	200 x 400mm columns	4	CM	13,000	52,000.00
N	150mm thick suspended slab	25	SM	2,200	55,000.00
O	250mm thick closing lid	1	SM	4,800	4,800.00
	Walling				
P	200mm impervious natural stone walling with hoop iron and water proof cement mortar.	54	SM	1,800	97,200.00
	Total to collection page WT/3				590,440.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO.1 CONT'D</u>				
	<u>Reinforcement (All Provisional)</u>				
	<u>High tensile square twisted bars BS 4461 as described in:</u>				
A	8mm diameter bars	175	KG	400	70,000.00
B	10mm ditto	1053	KG	350	368,550.00
C	12mm ditto	131	KG	400	52,400.00
	Steel mesh fabric reinforcement to BS 4483				
D	Steel fabric mesh reinforcement type A142 weighing 2.2kg/M ² and to BS4483 and with 150mm wide side laps (measured net no allowance for laps).	25	SM	2,200	55,000.00
	Damp proof membrane				
E	1000-gauge polythene sheeting laid under concrete floor bed.	25	SM	2,200	55,000.00
F	50mm thick mastic asphalt waterproofing or equivalent to structural engineer's specifications.	38	SM	1,400	53,200.00
	Anti-termite treatment				
G	'Dragnet' or other equal and approved anti termite insecticide treatment to blinded hardcore surfaces applied in accordance with manufacturer's instructions.	25	SM	1000	25,000.00
	Sawn formwork to:				
H	Edges of ground floor bed exceeding 150mm but not exceeding 300mm girth.	17	LM	1450	24,650.00
I	Sides of concrete columns	24	SM	1200	28,800.00
J	Soffits of suspended slab	25	SM	1,400	35,000.00
K	Edges of suspended slab exceeding 75mm but not exceeding 150mm girth	17	LM	1000	17,000.00
L	Soffits of lid	1	SM	10,000	10,000.00
M	Vertical sides of closing lid	3	LM	2290	6,870.00
	Carried to collection page WT/3				801,470.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
	<u>ELEMENT NO.1 CONT'D</u>				
A	<u>Floor Finishes</u> 32mm thick cement and sand (1:4) bedding screed steel floated.	25	SM	1250	31,250.00
B	<u>Wall Finishes</u> Plaster				
C	12mm thick cement and sand plaster 1:4 steel trowel-led.	54	SM	1,400	75,600.00
D	<u>Ceiling Finishes</u> 12mm thick cement and sand (1:4) plaster steel trowel-led to soffits of suspended slab.	25	SM	850	21,250.00
E	32mm thick cement and sand (1:4) screed to top of suspended slab.	25	SM	1200	30,000.00
	Total to collection				158,100.00
	<u>COLLECTION</u>				
	Total from page UWT/1				590,440.00
	Total from page UWT/2				801,470.00
F	Total from page UWT/3				158,100.00
G	Allow Kshs 100,000.00 for general pipe works				100,000.00
	Allow Kshs 50,000.00 for contingencies (Class A rock or water or disposal of soil)				50,000.00
	TOTAL FOR UNDERGROUND WATER TANK CARRIED TO GRAND SUMMARY				1,700,010.00

**BILL NO. 06: BILLS OF QUANTITIES FOR THE PROPOSED ELEVATED WATER
TANK TOWER AND PLASTIC TANKS.**

ITEM	DESCRIPTION	QTY.	UNIT	RATE	SHS.
	<p><u>ELEMENT NO. 1</u> <u>ALL PROVISIONAL</u> <u>NOTE:</u></p> <p><u>All work measured under this element is up to and including the floor slabs but excluding the finishes thereon: -</u></p> <p><u>SITE CLEARANCE:</u></p>				
A	Clear the site of all bushes, shrubs, undergrowth and small trees grab uproot and cart away burn all arising.	25	SM	20	500.00
B	Excavate over site average 250mm deep to remove vegetable soil load up wheel and deposit on site not exceeding 100m	16	SM	50	800.00
C	Excavate oversite to reduce levels	4	CM	200	800.00
D	Excavate for strip foundation trenches not exceeding 1.5m deep commencing from reduced level.	11	CM	200	2,200.00
E	Ditto bur for column bases	3	CM	200	600.00
F.	Extra over excavation for excavating in rock class 1	1	CM	1500	1,500.00
G.	Allow for keeping excavations free from mud and all water including spring and running water by pumping pailing or other approved means.	-	ITEM	2000	2,000.00
H.	Allow for planking and strutting to sides of excavations.	-	ITEM	2000	2,000.00
	CARRIED TO COLLECTION				10,400.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	SHS.
	<u>DISPOSAL</u>				
A	Load surplus excavated material wheel and deposit onsite not exceeding 100m away.	10	CM	250	2,500.00
	<u>FILLING:</u>				
B	Return in and ram selected excavated material around foundations.	9	CM	250	2,250.00
	<u>HARDCORE AS DESCRIBED:</u>				
C	300mm approved hardcore filling including leveling consolidating and or hand packing in two layers.	3	CM	1600	4,800.00
	<u>BLINDING:</u>				
D	50mm thick layer murrum or other equal and approved blinding to the surface of hardcore; rolled smooth to receive polythene sheeting's (m.s.)	9	SM	150	1,350.00
	<u>INSECTICIDE TREATMENT</u>				
E	'Termidor' or other equal and approved chemical insecticide treatment prepared and applied according to the manufacturer's printed instructions.	9	SM	350	3,150.00
	<u>REMOVE OF TERMITES NESTS</u>				
F	Remove termite's nests by approved means and destroy the termites by applying 'termidor' or other equal and approved chemicals as per the manufacturers printed instructions.	-	ITEM	2000	2,000.00
	CARRIED TO COLLECTION				16,050.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	SHS.
	<u>DAMP PROOF MEMBRANE</u>				
A	500 gauge polythene or other equal and approved plastic sheets damp proof membrane laid over blinding (measured net – allow for laps)	9	SM	150	1,350.00
	<u>IN-SITU CONCRETE WORK</u>				
	<u>MASS CONCRETE (1:4:8/38-38mm AGGREGATE)</u>				
B	50mm thick blinding under foundations	0.5	CM	8000	4,000.00
	<u>VIBRATED REINFORCED CONCRETE (1:2:4/20-20MM) AGGREGATE AS DESCRIBED IN:-</u>				
C	Strip foundations	1.5	CM	10000	15,000.00
D	Column /Bases	4	CM	10000	40,000.00
E	150mm thick floor slab (1:2:4)	9	SM	1000	9,000.00
	<u>STEEL REINFORCEMENT</u>				
	<u>SUPPLY AND FIX BAR/ROD REINFORCEMENT INCLUDING BENDING HOOKS TRYING WIRE CUTTING SPACER AND SUPPORTING ALL IN POSITION AS DESCRIBED.</u>				
	<u>HIGH TENSILE SQUARE TWISTED BARS TO B.S. 4461</u>				
F	16mm diameter bars	80	KG	100	8,000.00
G.	Y12 mm bars	120	KG	100	12,000.00
H	10mm diameter	30	KG	200	6,000.00
	<u>MILD STEEL ROD TO B.S. 4449</u>				
I	8mm diameter	25	KG	200	5,000.00
	CARRIED TO COLLECTION				100,350.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	SHS.
	<u>GROUND FLOOR SLAB REINFORCEMENT</u> <u>High tensile square twisted bars to BS 4461</u>				
A	10mm bars (both ways)	85	KGS	200	17,000.00
	<u>SAWN FORMWORK AS DESCRIBED TO:</u>				
B	Edges of floor slabs 75 - 150mm high	15	LM	140	2,100.00
	<u>FOUNDATION WALLING</u>				
C	200mm thick rough chiseled natural stone walling bedded and joined in cement and sand (1:3) mortar and reinforced with and including 20 Gauge 25mm wide hoop iron in every alternate course.	16	SM	1500	24,000.00
	<u>PLINTH AREA FINISHES</u>				
D	20mm thick cement and sand (1:3) wood float render to plinth area.	8	SM	400	3,200.00
E	Prepare and apply three coats black bitumastic paints to rendered area.	8	SM	350	2,800.00
F	50mm thick precast concrete slab size 600mmx 600mm laid on and including 50mm thick consolidated sand bed and 100mm murrum sub-base including all necessary excavations and anti- termite treatment to sub-base.	25	SM	800	20,000.00
	TOTAL CARRIED TO COLLECTION				69,100.00
	Brought forward page EWT/01				
	Brought forward page EWT/02				10,400.00
	Brought forward page NDMA03				16,050.00
	Brought down from page EWT/04 above				100,350.00
					69,100.00
	TOTAL FOR ELEMENT NO. 01 SUB-STRUCTURE CARRIED TO SUMMARY				195,900.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	SHS.
	ELEMENT NO. 02 R.C. FRAME(SUPERSTRUCTURE <u>Insitu concrete (1:2:44/20) class 25/20 finished</u> <u>fair faced: including moulds necessary</u> <u>reinforcement bars: bent and hooked at end;</u> <u>hoisting; bedding joined and pointed in cement</u> <u>and sand (1:4) mortar as described.</u>				
A	250x400mm -columns	4	CM	10,000	40,000.00
	<u>Vibrated reinforced concrete (1:2:4/20-25 –</u> <u>20mm aggregates) as described in:-</u>				
B	Ring Beams/suspended beams	3	CM	10,000	30,000.00
B	200mm suspended slab <u>Steel reinforcement</u> <u>Supply and Fix steel bar/rod reinforcement</u> <u>including bending hooks trying wire cutting</u> <u>spacer blocks and supporting all in position.</u>	9	SM	1,000	9,000.00
	<u>High Tensile square twisted bars to B.S. 4461</u> <u>as described in:-</u>				
C	Y16 mm diameter(columns/suspend beam)	235	KGS	200	47,000.00
D	12mm diameter (ring beam)	60	KG	200	12,000.00
E	10mm diameter bars(slab)				
	<u>Mild Steel rods to B.S. 4449 as described in:-</u>				
F	8mm diameter(columns)	20	KG	200	4,000.00
	<u>Sawn Form Works as described to:-</u>				
G	Side and soffits to ring beams/columns/beams	60	SM	900	54,000.00
H	20x 40mm box satin ladder embedded and fixed on side wall as directed	7	LM	600	4,200.00
	TOTAL CARRIED TO SUMMARY				200,200.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	SHS.
	<u>ELEMENT NO. 03</u>				
	<u>ROOFING</u>				
	<u>ALL TIMBER TO BE SAWN CYPRESS SEASONED TO AN EQUILLIBRIUM MOISTURE CONTENT OF BETWEEN 9% AND 15% AND TO THE REQUIREMENT OF K.S. 02771 OF 1991 TREATED WITH APPROVED WOOD PRESENTATIVE.</u>				
A	100 x 50mm wall plate on and including 10mm cement and sand (1:4) mortar bed secured, on reinforced concrete ring beams (m.s) by mild steel anchor bolts (m.s)	15	LM	300	4,500.00
	<u>THE FOLLOWING IN NAILED TIMBER TRUSSES INCLUDING HOISTING AND PLACING 3000MM ABOVE FLOOR SLAB LEVEL</u>				
B	100x 50mm rafters.	20	LM	350	7,000.00
C	100x 50mm tie beams	15	LM	350	5,250.00
D	75x 50mm strut/ties.	10	LM	250	2,500.00
	<u>INDEPENDENT MEMBERS</u>				
E	50 x 50mm purlins	25	LM	200	5,000.00
	<u>ROOF COVERING</u>				
F	Gauge 30 IT/BP760 Profiled sheets fixed on timber purlins (m.s)	20	SM	1300	26,000.00
	TOTAL CARRIED TO COLLECTION				50,250.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	SHS.
A	Gauge 28 ridge capping to match covering <u>WROT CYPRESS</u>	4	LM	600	2,400.00
B	25 x 150mm fascia board fixed to end of rafters (m.s)	14	LM	400	5,600.00
C	25 x 150mm barge board fixed to the end of battens. <u>SUNDRIES</u>	10	LM	400	4,000.00
D	12mm diameter x 250mm long black mild steel anchor bolt embedded in ring beam at 1200mm centers including drilling holes in timber.	8	NO	250	2,000.00
E	100 x 100 x 6mm thick galvanized mild steel nailing cleat once bent to form angle ten times drilling; one flange nailed to foot of rafter (m.s) other nailed to top of wall plate (m.s) <u>PAINTING</u> <u>PRIME ONLY BACK OF WOOD BEFORE FIXING</u>	16	NO	250	4,000.00
F	Surface 100 – 200mm girth. <u>KNOT PRIME STOP AND PREPARE AND APPLY ONE UNDER COAT AND TWO FINISHING COATS OF GLOSS OIL PAINT (abd)</u> <u>To:</u>	70	LM	50	3,500.00
G	General surface of wood 200 – 300 mm girth.	24	LM	150	3,600.00
	TOTAL CARRIED TO COLLECTION				25.100.00

EWT/07

ITEM	DESCRIPTION	QTY.	UNIT	RATE	SHS.
	<u>RAIN WATER GOODS/TANKS</u>				
	<u>24 Gauge Prepainted 2000mm galvanized iron box gutters properly jointed and fixed to fascia with brackets to BS 1091</u>				
A	Size 150mm x 100mm	14	LM	1000	14,000.00
B	Extra in box gutter for 75mm outlet	4	NO	300	1,200.00
C	Ditto for stopped end	1	NO	300	300.00
	<u>Ditto for stopped end 24 gauge Prepainted galvanized iron down pipes properly jointed and fixed to walls with brackets to BS 1091</u>				
D	75mm diameter	12	LM	600	7,200.00
E	Extra over down pipe for sawn neck	4	NO	800	3,200.00
F	Ditto for shoe	4	NO	800	3,200.00
G	Allow for 2No. 10,000 litres plastic water storage tanks including connecting pipes	2	NO	100,000	200,000.00
H	Ditto but booster pump to ground tank	1	NO	15,000	15,000.00
	Total Carried to Collection				
	<u>COLLECTION</u>				244,100.00
	Brought Forward from EWT/6				
	Brought Forward from NMDA/7				50,250.00
	Brought forward from above				25,100.00
					244,100.00
	TOTAL CARRIED TO SUMMARY				319,450.00

EWT/08

ITEM	DESCRIPTION	QTY.	UNIT	RATE	SHS.
	<u>ELEMENT NO. 04</u> <u>DOORS/GRILLS</u> <u>Grill proofing grilles:-</u> <u>25x25mm Hollow section tubes of approved design</u>				
A	Door size 900x2100mm high including Angle line frame.	2	NO	10,000	20,000.00
B	Screen wall cladding	50	SM	650	32,500.00
	<u>Iron Mongery</u> <u>Supply and fix the following iron mongery:</u>				
C	Pressed steel tower bolts (padlocking).	2	NO	800	1,600.00
D	100mm pressed steel door hinges welded to angle line frame.	2	NO	400	800.00
	<u>Prepare and apply one undercoat and 2 finishing coats of gloss oil paint to:-</u>				
E	Bungler proofing grills(doors/cladding)				
	<u>Prepare and apply one coat of calcium plum bate and 2 coats of gloss oil paint to:-</u>				
F	General surfaces of metal gutters	8	LM	400	3,200.00
G	Ditto butt for down pipes	32	LM	500	16,000.00
	TOTAL CARRIED TO SUMMARY				74,100.00

ITEM	DESCRIPTION	QTY.	UNIT	RATE	SHS.
	<p><u>ELEMENT NO. 05</u> <u>FINISHES</u></p> <p><u>Floor Finishes</u> <u>Cement and sand (1:4) screed as described</u></p>				
A	<p>40mm thick backing steel trowelled smooth in water proof cement</p> <p><u>Finishes (Column/slab)</u></p> <p><u>Two coats gauged cement lime and sand (1:2:9) plaster steel trowelled smooth</u></p>	18	SM	450	8,100.00
B	<p>25mm(minimum) thick to underside of slab, beams and columns internally &externally</p> <p><u>Ceiling finishes</u></p> <p><u>Lining</u></p>	60	SM	300	18,000.00
C	<p>12mm thick celotex ceiling on brandering (m.s) and set in systematic V-join.</p>	16	SM	600	9,600.00
D	<p>Extra over for trap doors size 600x 600mm</p> <p><u>Sawn cypress</u></p>	1	NO	900	900.00
E	<p>75x50mm brandering plugged</p>	12	LM	250	3,000.00
F	<p>50x50mm brandering including eves</p>	40	LM	200	8,000.00
	TOTAL CARRIED TO COLLECTION				47,600.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	SHS
A	<u>Wrot Cypress</u> 12x100mm curved cornice plugged	12	LM	150	1,800.00
	<u>Painting</u> <u>Prime only back of frame with aluminium or other equal and approved primer before fixing as described to:</u>				
B	Timber, surface not exceeding 100mm girth	12	LM	50	600.00
	<u>Knot prime stop and prepare and apply one undercoat and two finishing coats gloss oil crown paints to:</u>				
C	General surfaces of wood not exceeding 100mm girth	12	LM	50	600.00
	<u>Paint and Decoration</u> <u>Prepare and apply one undercoat and three coats crown plastic emulsion paint or other approved to:</u>				
D	Plastered columns/beams internally & externally	60	LM	300	18,000.00
	<u>Prepare and apply three coats of crown or other approved paint to:</u>	16	SM	300	4,800.00
E	Celotex lining internally /eaves				25,800.00
	TOTAL CARRIED TO COLLECTION				
	Brought forward from page EWT/10				47,600.00
	Brought down from above				25,800.00
	TOTAL FOR ELEMENT NO. 05 FINISHES CARRIED TO SUMMARY				73,400.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	SHS
	<u>ELEMENT NO. 04</u> <u>PVC TANKS & PLUMBING</u> <u>PVC Plastic Water Storage Tanks</u>				
A	Supply and install on existing water tower concrete slab 4.0M above ground level 5,000 litres PVC plastic water tanks assembled complete with medium-pressure ball valve inlet, outlet connections and drain cock and all other connections including ball valve and float. The tank shall be 'Ken tank' model or any other approved including all the necessary pipe work.	1	NO	45,000	45,000.00
B	Ditto but installed on existing ground concrete slab	1	NO	15,000	15,000.00
	<u>Booster Pumps</u>				
C	Supply, deliver and install electrically driven twin booster pumps with a single phase power source, as 'Pedrollo' or its equivalent.	1	SET	5,000	5,000.00
	<u>Control Panel</u>				
D	Control panel for the above pumps with contactors, over voltage and under voltage protection relays, start /stop push buttons and indicator lights.	1	NO	2,500	2,500.00
	<u>Electrical Accessories</u>				
E	<ul style="list-style-type: none"> • 32Amps double pole fused isolator complete with its integral switch. • Four-way consumer unit complete with its integral switch. • 30 Amps m.c.bs for the above C/U. • 2.5 mm² flex cable as E/A cables. 	1	NO	2,000	2,000.00
		1	NO	1,800	1,800.00
		2	NO	2,000	4,000.00
		20	LM	1,200	24,000.00
F	<u>Testing & Commissioning</u> Allow for flushing out and testing the works as required to the satisfaction of the Engineer.	-	ITEM	5,000	5,000.00
	TOTAL FOR TANKS CARRIED TO COLLECTION				104,300.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
	<u>PLUMBING WORKS</u>				
	<u>Supply, deliver and install Polypropylene Random (PP-R) PN-20 Oxy-stable pipework to din 8077. pipe jointing shall be by polyfusion or use of electrical coupling.</u>				
	<u>PPR pipe fixed on concrete surface</u>				
	20mm diameter PPRC pipe				
A.	25mm –Ditto-	25	LM	200	5,000.00
B.		10	LM	250	2,500.00
	<u>Extra- over PPR pipe work for the following:</u>				
	<u>Bends/ Elbow</u>				
C.	20mm diameter PPR bend	10	NO	300	3,000.00
D.	25mm diameter ditto	3	NO	250	750.00
E.	25mm x 20mm threaded bend	1	NO	450	450.00
	<u>Tees</u>				
F.	20mm equal tee	2	NO	550	1,100.00
G.	25mm ditto	2	NO	500	1,000.00
	<u>Reducers</u>				
H.	25mmx20mm reducer	2	NO	500	1,000.00
I.	20mmx13mm ditto	1	NO	650	650.00
	<u>Transition fittings</u>				
I.	25mmx 3/4" threaded/transition fittings	6	NO	450	2,700.00
J.	20mmx13mm ditto	2	NO	200	400.00
	<u>Unions</u>				
K.	20mm union	3	NO	300	900.00
L.	25mm ditto	2	NO	250	500.00
	<u>Sockets</u>				
M.	20mm socket	6	NO	550	3,300.00
N.	25mm ditto	2	NO	200	400.00
	TOTAL CARRIED FORWARD TO COLLECTION				23,650.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
A.	<u>Gate valve</u> 20mm dia. approved medium pressure screw down full way non-rising stem wedge gate valve to BS1952, with wheel and head joints to tubing. The gate valve to be as “Pegler” or approved equivalent.	2	NO	400	800.00
B.	25mm ditto	1	NO	600	600.00
C	<u>Non-return valve</u> 20mm dia. approved medium pressure non-return valve to BS1952. The non-return valve to be as “Pegler” or approved equivalent.	1	NO	2,150	2,150.00
D.	25mm ditto	1	NO.	900	900.00
E.	<u>Testing & Commissioning</u> Allow for flushing out and sterilization of the cold-water system as required to the satisfaction of the Engineer.	-	ITEM	5,000	5,000.00
Total carried to Collection					9,450.00
<u>COLLECTION</u>					104,300.00
Total from page WT/08					23,650.00
Total from page WT/09					9,450.00
Total from page WT/10 above					
TOTAL FOR PVC TANKS & PLUMBING CARRIED TO SUMMARY OF WATER TOWER					137,400.00

ITEM	DESCRIPTION	QTY	PAGE NO	SHS
	<p><u>SUMMARY</u></p> <p><u>PROPOSED ELAVATED WATER TANK TOWER AT NDMA-MANDERA</u></p> <p><u>ELEMENT</u></p>			
A	SUBSTRUCTURES		EWT/4	195,900.00
B	REINFORCE CONCRETE FRAME		EWT/5	200,200.00
C	ROOFING		EWT/8	319,450.00
D	DOORS/GRILLS		EWT/9	74,100.00
E	FINISHES		EWT/11	77,200.00
F	PVC TANKS & PLUMBING		EWT/14	137,400.00
	<p>TOTAL FOR ELAVATED WATER TANK TOWER CARRIED TO SUMMARY OF EXTERNAL WORKS</p>			<p>1,000,450.00</p>

EWT/12

BILL NO. 7 - BILLS OF QUANTITIES FOR THE PROPOSED 1NO. TWIN TOILETS

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
	<u>2 No. CUBICLES VIP TOILET</u>				
A.	Excavate pit not exceeding 1.5m deep	3	CM	400	1,200.00
B.	Ditto 1.5 – 3.0m deep	2	CM	500	1,000.00
C.	Ditto 3.0-4.5m deep	2	CM	450	900.00
D.	Ditto 4.5 -6.0m deep	2	CM	200	400.00
E.	Ditto 6.0-9.0m deep	4	CM	800	3,200.00
F.	1:2:4 concrete in strip foundation	1	CM	400	400.00
G.	150mm foundation walling	10	SM	10,000	100,000.00
H.	100mm thick 1:2:4 concrete suspended	4	SM	2200	8,800.00
I.	12m square twisted reinforced bar	50	KGS	1100	55,000.00
J.	Sawn form work to soffit of concrete slab	3	SM	350	1,050.00
K.	Ditto to edges 75 -150mm high	8	LM	300	2,400.00
L.	Form 250 x 100mm diameter hole	2	NO	200	400.00
M.	Ditto 100mm	1	NO	250	250.00
N.	150mm stone walling in gauged mortar	25	SM	1000	25,000.00
O.	1:2:4 concrete in lintel	1	CM	10,000	10,000.00
P.	12mm reinforced bars	8	KGS	200	1,600.00
Q.	8mm ditto	3	KGS	200	600.00
R.	Sawn formwork to sides and soffits of lintel	1	SM	400	400.00
	CARRIED TO COLLECTION				212,600.00

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
A.	100 x 50mm sawn cypress wall plate fixed with hoop iron straps	5	LM	2200	11,000.00
B.	100 x 50mm ditto rafters	11	LM	1500	16,500.00
C.	75 x 50mm purlins	9	LM	1,000	9,000.00
D.	G.C.I gauge 30 roofing sheets	7	SM	2,200	15,400.00
E.	200 x 50mm fascia board	11	LM	1,400	15,400.00
F.	100 x 50 wrot door frame rebated	10	LM	1,800	18,000.00
G.	45mm framed ledged brace batten door size 90 x200mm	2	NO	15,000	30,000.00
H.	100mm pressed steel butt hinges	3	PRS	2,200	6,600.00
I.	250mm long chromium plated pad bolt	2	NO	1500	3,000.00
J.	150mm long barrel bolt	2	NO	400	800.00
K.	12mm cement and sand plaster to walling (Internal)	21	SM	750	15,750.00
L.	12mm cement and sand rendering to walling (External)	14	SM	950	13,300.00
M.	12mm cement and sand rendering to Floor	3	SM	900	2,700.00
N.	100mm diameter UPVC vent pipe	1	NO	1,800	1,800.00
O.	100mm PVC balloon grating	1	NO	1,850	1,850.00
P.	Paving slabs	8	SM	600	4,800.00
	CARRIED TO COLLECTION				165,900.00

TT/02

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (KSHS)
A.	250 x 100 x 100mm thick cement and sand footrest	4	NO	600	2,400.00
B.	Prepare and apply three coats gloss paint on plastered walling internally	21	SM	300	6,300.00
C.	Prepare and apply 2 coats emulsion paint on rendered walling externally	14	SM	200	2,800.00
D.	Knot, prime and apply one undercoat and two-coat gloss paint on timber	15	SM	300	4,500.00
E.	Ditto door frame 100-200mm girth	11	LM	300	3,300.00
F.	Ditto fascia board 200-300mm girth	11	LM	200	2,200.00
Total Carried to collection					21,500.00
<u>Collection</u>					
From page TT/01					212,600.00
From page TT/02					165,900.00
From page TT/03					21,500.00
TOTAL FOR 1NO. TWIN TOILET BLOCK CARRIED TO GRAND SUMMARY					400,000.00

PRIME COST AND PROVISIONAL SUMS

ITEM	DESCRIPTION	AMOUNT (KSHS)
A.	<u>PRIME COST SUMS</u> Allow a sum of Kenya Shillings fifty Thousand (Kshs.50,000.00) for contingencies	50,000.00
B	Allow a sum of Kenya Shillings fifty Thousand (Kshs.50,000.00) for connection to existing septic tank.	50,000.00
	<u>PROVISIONAL SUMS</u> Provide a sum of Kenya Shillings Fifty Thousand (Kshs.50, 000.00) for Project Manager's expenses and Documentation.	50,000.00
	TOTAL FOR P.C & PROVISIONAL SUMS CARRIED TO GRAND SUMMARY	150,000.00

BILLS OF QUANTITIES FOR THE PROPOSED 3 BEDROOM, BOUNDARY WALL, GUARD HOUSE, UNDERGROUND WATER TANK, ELEVATED WATER TOWER AND 1NO. TWIN TOILET AT DEPUTY COUNTY COMMISSIONER'S RESIDENCE-ASHABITO- MANDERA NORTH CONSTITUENCY

GRAND SUMMARY

ITEM	DESCRIPTION	Page No.	For Official use only		For Contractor use only	
			Kshs	Cts	Kshs	Cts
	<u>GRAND SUMMARY</u>					
A	Particular & General Preliminaries	GP/13	50,000.00	00		
B	3 Bedroom	BW/06	4,991,080	00		
C	Boundary Wall	SD/12	2,206,220	00		
D	Gate House	SD/12	709,150	00		
E	Underground Water Tank	UWT/03	1,700,010	00		
F	Elevated Water Tower	WT/11	1,000,450	00		
G	1No. Twin Toilet	TT/03	400,000	00		
H	P.C. And Provisional Sums	PC/01	150,000	00	150,000	00
	SUB-TOTAL		11,206,910	00		
	ADD 16% VAT		1,793,105	60		
	TOTAL ESTIMATED COST		13,000,015	60		
			Say			
			13,000,000	00		

Amount In Words(Kshs.) Thirteen Million Only (Kshs. 13,000,000.00) Only.

REPUBLIC OF KENYA



MANDERA COUNTY GOVERNMENT
MINISTRY OF ROADS, TRANSPORT & PUBLIC WORKS
DEPARTMENT OF PUBLIC WORKS

Telephone: 07 22849171

Email: mdrpublicworks@gmail.com

When replying please quote

Sub County Works Office
Mandera North Constituency
P.O BOX 49
MANDERA

Ref: NG-CDF/MN/2023 VOL.1/01

5TH July, 2018.

Fund Account Manager
Constituency Development Fund,
Mandera North Constituency,
P.O. Box 255 – 70300,
MANDERA

RE:BILLS OF QUANTITIES FOR THE PROPOSED 3 BEDROOM, BOUNDARY WALL, GUARD HOUSE, UNDERGROUND WATER TANK, ELEVATED WATER TOWER AND 1NO. TWIN TOILET AT DEPUTY COUNTY COMMISSIONER'S RESIDENCE- ASHABITO- MANDERA NORTH CONSTITUENCY.

ESTIMATE BILLS OF QUANTITIES.

This is in reference to your request dated 3rd July, 2023 on the above project and subject matter.

Forwarded herewith, please find Estimate Bills of Quantities for the proposed works amounting to Kenya Shillings Thirteen Million Only (Kshs. 13,000,000.00) only.

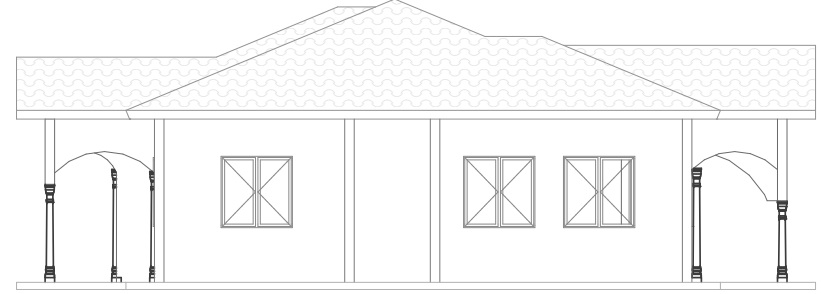
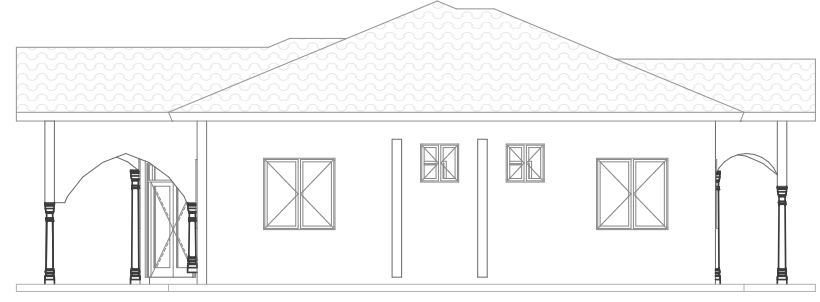
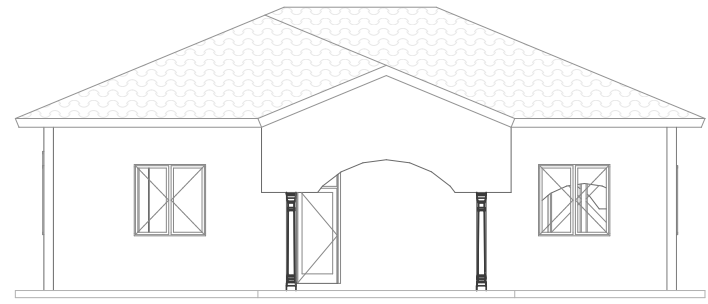
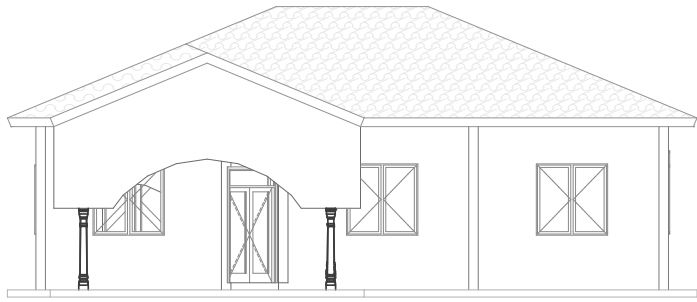
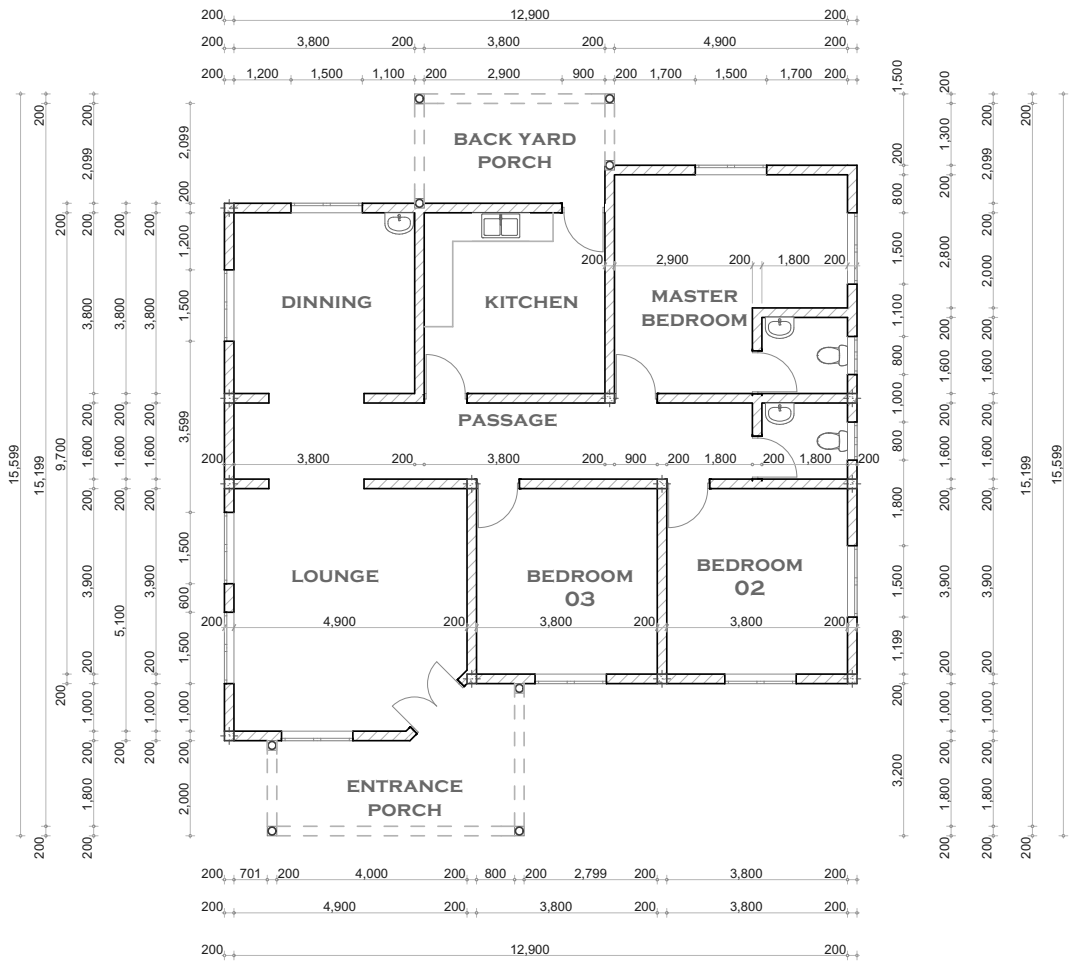
Please liaise with this office when funds are allocated for preparation of tender documents and further technical advice.

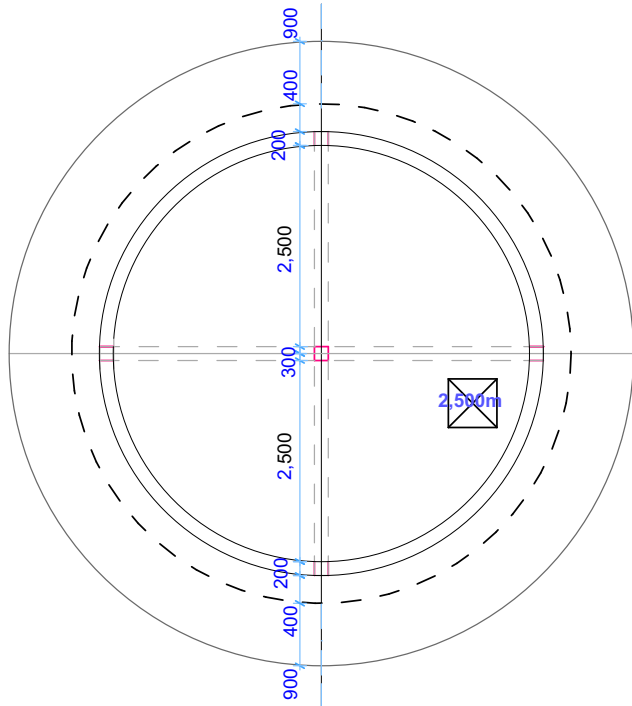
A handwritten signature in blue ink, appearing to read 'Abdikadir Maalim'.

Abdikadir Maalim
Sub county works officer
MANDERA NORTH CONSTITUENCY

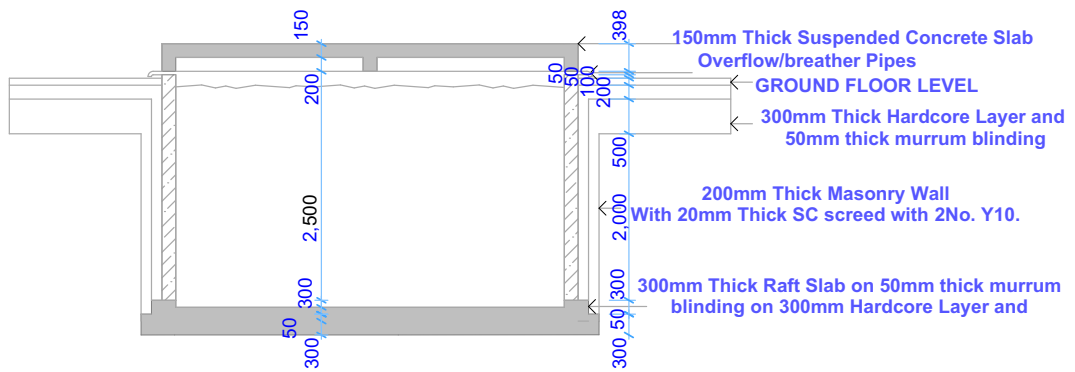
Encls.

Chairman
Mandera North Constituency
P.O. Box 255 70300 Mandera



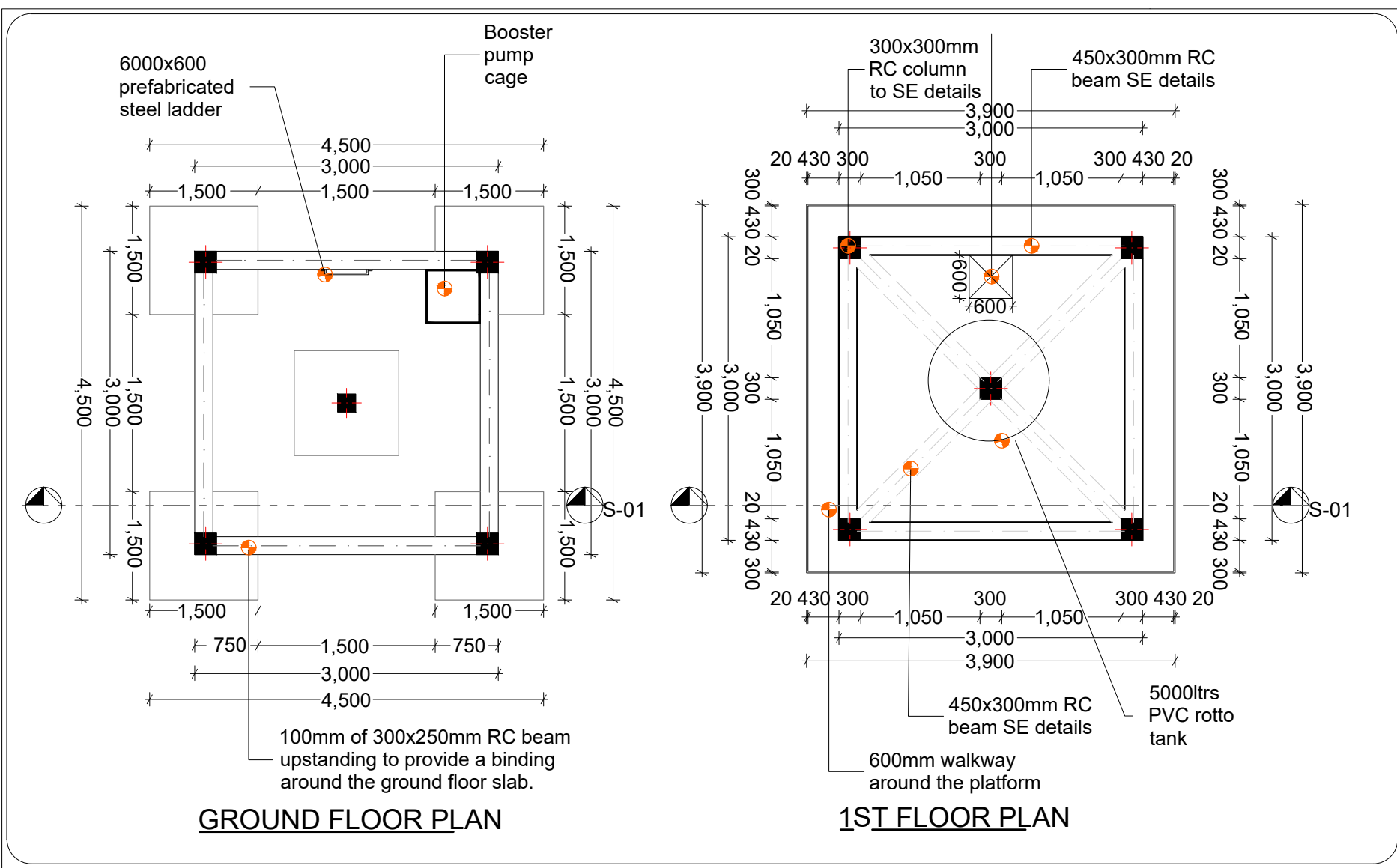


GROUND FLOOR



SECTION

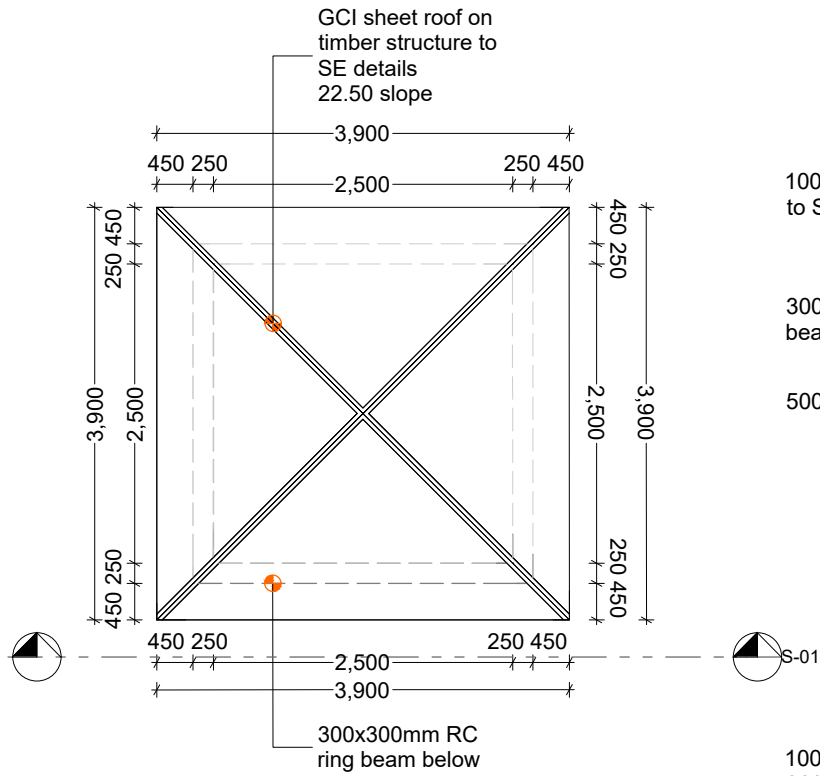
50CUBIC METRE MASONRY UNDERGROUND WATER TANK



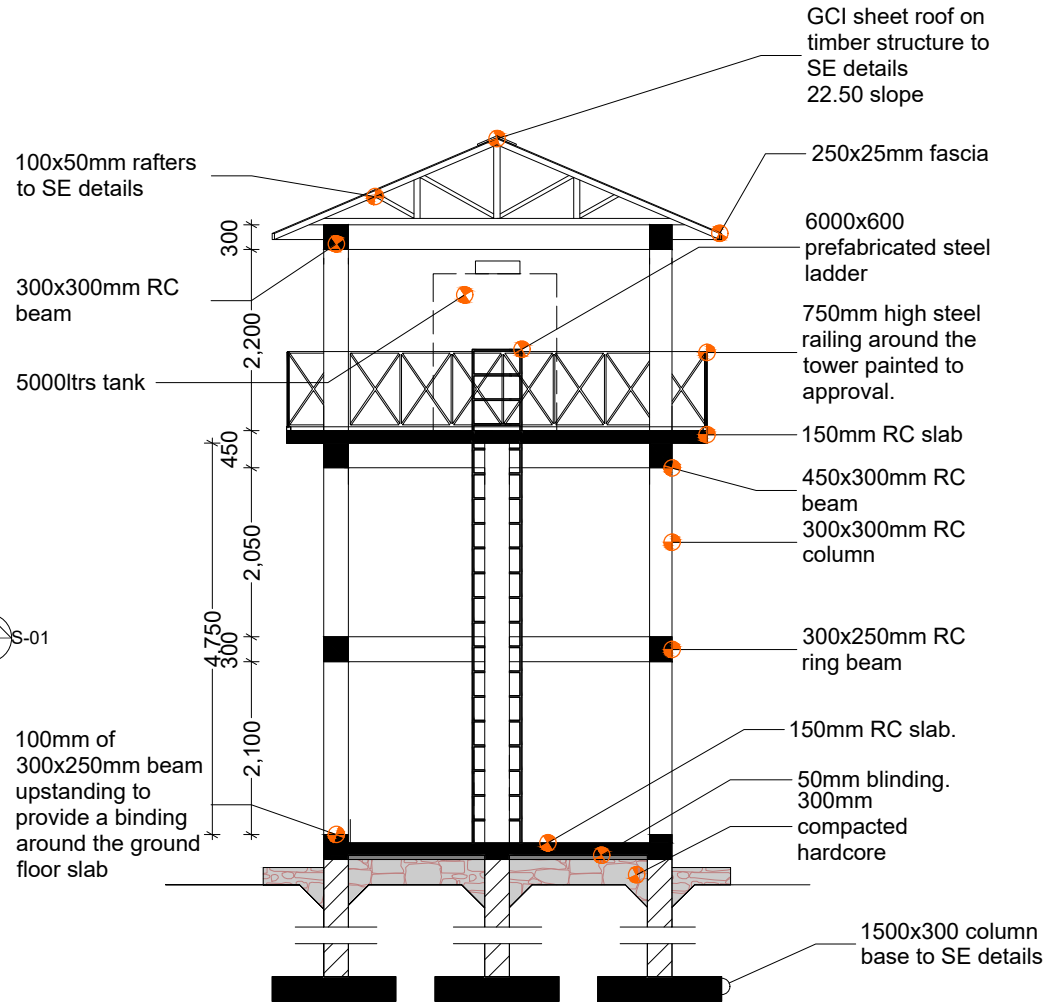
GROUND FLOOR PLAN

1ST FLOOR PLAN

PROPOSED REINFORCED CONCRETE ELEVATED WATER TOWER



ROOF PLAN



SECTIONAL ELEVATION S-01

PROPOSED REINFORCED CONCRETE ELEVATED WATER TOWER