THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH

PROPOSED CONSTRUCTION OF TWO STOREY OPD BUILDING FOR LINDI RRH AT LINDI REGION – PROCUREMENT UNDER TANZANIA COVID-19 SOCIAL ECONOMIC RECOVER PLAN (TCRP)

Between

PERMANENT SECRETARY,

MINISTRY OF HEALTH,

P.O.BOX 743,

40478 DODOMA

and

M/s NANDHRA ENGINEERING & CONSTRUCTION

P.O. BOX 1512

DAR ES SALAAM

CONTRACT NO MOH/2021-2022/HQ/W/26

APRIL, 2022

Form of Contract

This Contract, made the ....29..... day of ....April.... 2022 between the **PERMANENT SECRETARY, MINISTRY OF HEALTH of P.O. Box 743 DODOMA** (hereinafter called "the Employer")

AND

NANDHRA ENGINEERING & CONSTRUCTION P.O Box 1512 DAR ES SALAAM. (Hereinafter called "the Contractor") of the other part.

Whereas the Employer is desirous that the Contractor execute **ME/007/2021-2022/HQ/W/15 PROPOSED CONSTRUCTION OF TWO STOREY OPD BUILDING FOR LINDI RRH AT LINDI REGION PROCUREMENT UNDER TANZANIA COVID 19NSOCIAL ECONOMIC RECOVERY PLAN (TCRP)** (hereinafter called "the Works") and the Employer has accepted the Tender by the Contractor for the execution and completion of such works and the remedying of any defects therein in the sum of **TZS Two Billion seven Hundred Million (2,700,000,000) VAT Inclusive** (hereinafter called "Contract Price").

Now this Agreement witnesses as follows:

1. In this Contract, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement.
2. The following documents attached hereto shall be deemed to form an integral part of this Contract:

   (a) Form of Contract
   (b) Form of Tender
   (c) Special Condition of Contract
   (d) General Condition of Contract
   (e) Letter of Notification to award
   (f) Letter of Acceptance
   (g) Negotiation minutes
   (h) Priced Bill of Quantities
   (i) Drawings.

3. All the aforesaid documents are hereinafter referred to as "the Contract" and shall be taken as complementary and mutually explanatory of one another but in case of ambiguities or discrepancies shall take precedence in the order set out above.

4. 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.

5. the Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects wherein the Contract Price or such other sum **TZS Two Billion seven Hundred Million (2,700,000,000) VAT Inclusive for the end of 30th June, 2022 after site possession within 7 days and 12 months for Defects liability** 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 Contract to be executed the day and year first before written.

For and on behalf of the Ministry of Health

..... **In the presence of**

Signature of Authorized representative **Signature**.....

Name..... **Name**.....

Occupation..... **Occupation**.....

For and on behalf of the NADHRA ENGINEERING & CONSTRUCTION

NADHRA ENGINEERING & CONSTRUCTION COMPANY LTD Building & Civil Contractors P. O. Box 405 - Morogoro

..... **In the presence of**

Signature of Authorized representative **Signature**.....

Name..... **Name**.....

Occupation..... **Occupation**.....

FORM OF TENDER

2. Form of Tender

30th December 2021

To: **Ministry of Health, Community Development, Gender, Elderly and Children,**
P. O. Box 743, 40478
Dodoma

We offer to execute the: TENDER NO.: ME/007/2021-2022/HQ/W/15 For PROPOSED CONSTRUCTION OF TWO STOREY OPD BUILDING FOR LINDI RRH, in accordance with the Conditions of Contract accompanying this Tender for the Contract Price of TZS. 4,116,056,966.31 *[amount in numbers]*, TZS. FOUR BILLION ONE HUNDRED SIXTEEN MILLION FIFTY SIX THOUSAND NINE HUNDRED SIXTY SIX CENTS THIRTY ONE ONLY *[amount in words]* TANZANIAN SHILLINGS *[name of currency]*.

The Contract shall be paid in Tanzania Shillings.

The advance payment required is: -

Amount	Currency
15% of the Contract Sum	TShs.

We accept the appointment of **National Construction Council of Tanzania (NCC)** as the organisation responsible for appointing the adjudicator.

We are not participating, as tenders, in more than one Tender in this tendering process other than alternative tenders in accordance with the tendering documents.

With reference to ITT Sub-Clause 3.11, it is our intention to subcontract approximately 20% of the Tender /Contract Price, details of which are provided herein.

Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers for any part of the contract has not been declared ineligible by the Government of the United Republic of Tanzania under Tanzania's laws or official regulations or by an act of compliance with a decision of the United Nations Security Council.

The following commissions or gratuities of fees have been paid or are to be paid by us to agents relating to this tender, and to contract execution if we are awarded the contract: -

Name and address of agent or recipient	Amount and currency	Purpose of commission or gratuity
NONE	NONE	NONE

(if none has been paid or is to be paid, state "none")

This tender and your written acceptance of it shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any Tender you receive.

We hereby confirm that this tender complies with the tender validity and Tender Security required by the tendering documents and specified in the Tender Data Sheet.

Authorized Signature: _____

NANDHRA ENGINEERING & CONSTRUCTION COMPANY LTD
Building & Civil Contractors
P.O. Box 405 Morogoro

Name and Title of Signatory: NIMESH R. BARMEDA - General Manager

Name of Tenderer: NANDHRA ENGINEERING & CONSTRUCTION CO. LTD

Address: P.O. Box 405 MOROGORO

NANDHRA ENGINEERING & CONSTRUCTION COMPANY LTD
Building & Civil Contractors
P.O. Box 405 Morogoro

SPECIAL CONDITIONS OF CONTRACT

Special Conditions of Contract
Instructions for completing the Special Conditions of Contract

The following Special Conditions of Contract shall supplement the General editions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. Except where otherwise indicated, all special Conditions of Contract should be filled in by the Employer prior to issuance of the Tendering Documents. Schedules and reports to be provided by Employer should be annexed.

SCC Clause	GCC Clause	Description
1.	1.1	Defects liability Period will be **365 days** The Employer is **Ministry of Health** **P. O. Box 743, 40478** **Dodoma,** **Telephone: +255- 22-2342000/5** **Electronic mail address: ps@afya.go.tz** 1. The name and identification number of the Contract is **MOH/2021-2022/HQ/W/26** The Commencement Date shall be **Seven days after site possession** The Intended Completion Date for the whole of the Works shall be **30th June, 2022 after signing of contract** The Site is located at **Lindi.** And is defined in drawings.
2	2.2	Indicate whether sectional completion is specified "NOT Specified"
3	2.3	List other documents that form part of the contract if any: i. Form of Contract ii. Form of Tender iii. Special Condition of Contract iv. General Condition of Contract v. Letter of Notification to award

		vi. Letter of Acceptance vii. Negotiation minutes viii. Priced Bill of Quantities ix. Drawings.
4	4.1	The language of the Contract documents is **English** The law that applies to the Contract is the Laws of Tanzanian
5	7.1	Address for communication Employer's: **Ministry of Health** **Government City,** **P.O. Box 743, 40478** **Dodoma.** **Contractor's** **NADHRA ENGINEERING & CONSTRUCTION P.O Box 1512 DAR ES SALAAM**
6	12.1	Pursuant to ITT Clause 11, the Tenderer shall furnish, as part of its Tender, documents establishing the Tenderer's eligibility to Tender and its qualifications to perform the contract if its Tender is accepted.
7	16.1	(a) for loss or damage to the Works, Plant and Materials: **TZS 50,000,000.00 (Tanzanian Shillings Fifty Million only)** (b) For loss or damage to Equipment: **TZS. 30,000,000 (Tanzanian Shillings Thirty Million only)** (c) For loss or damage to property (except the Works, Plant, Materials, and Equipment) in connection with Contract: **TZS. 50,000,000 (Tanzanian Shillings Fifty Million only)** (d) The minimum cover for personal injury or death insurance (a) for the Contractor's employees is **TZS 20,000,000 (Tanzanian Shillings Ten Million only)** (b) And for other people **TZS. 20,000,000 (Tanzanian Shillings Ten Million only)**
8	17.1	Site Investigation Reports available to the Tenderer are: a) Topographic survey

		b) Site layout plan c)Geo-tech survey report However, the Contractors are expected to supplement the provided information by their own investigations to an extent, which they consider necessary for preparing a realistic tender for the envisaged works.
9.	25.4	The other measures include: a. Minimizing the number of migrant workers employed on the project and household in the site camp b. Providing access to voluntary counseling and testing (VCT) c. Providing psychological support and health care including prevention and treatment of opportunistic infections for workers infected and affected, as well as their families d. Providing condoms (male and female) to workers
10	27.1	The Site Possession Date shall be **7 days** after the date of signing contract.
	31.1	Hourly rate of Fees payable to the Adjudicator is to be determined Types of reimbursable expenses to be paid to the Adjudicator include: • Accommodation Allowance to be determined by NCC • Transport TShs to be determined by NCC per kilometer while at arbitration place using a private car • Transport to and from Lindi.
11	30.4	**Arbitration will take place at DODOMA in accordance with rules and regulations published by The National Construction Council (NCC) Tanzania**
12.	32.1	Appointing Authority for the Adjudicator is **The National Construction Council (NCC) of Tanzania**
		B. Time Control
13.	34.1	The Contractor shall Submit a revised Program for the Works within 14 days of delivery of the Letter of Acceptance.

14.	34.2	The period between Programme updates is **30 days.** The amount to be withheld for late submission of an updated Program is **TZS 250,000.00** per week. Nonrefundable to Contractor.
		C. Quality Control
15.	42.1	The Defects Liability Period is **365 days.**
		D. Cost Control
16	50.7	Minimum amount of Interim Payment Certificate will be **N/A**
17.	52.1	The currency is **Tanzania Shillings**
18.	55.1	The contract is not subject to price adjustment in accordance with Clause 49 of the General Conditions of Contract N/A.
19.	56.1	The amount of retention is **10%** of value of works of Interim Payment Certificate'. Limit of retention: **5%** of contract price
20.	57.1	The amount of liquidated damages is **0.1 percent of contract price per day.**
	57.1	The maximum amount of liquidated damages must be equivalent to the amount of the performance security 10%.
21.	58.1	The Bonus for early completion is **N/A**
22.	59.1	The amount of advance payment shall be 15% per cent of the contract sum upon submission of unconditional bank guarantee form reputable bank and this payment will paid within 28 days after certification by Project Manager Monthly Recovery of Advance Payments will be **15%** of the amount of Interim Payment or any percentage such that advance payment is fully recovered by the time that, **80%** of value of works in contract is completed.
23.	60.1	The Performance Security shall be the minimum amounts equivalent to 10% of the contract price in the form of: (a) Bank Guarantee

		The standard form of Performance Security acceptable to the Employer shall be "*an Unconditional Bank Guarantee*" of the type presented in Section IX of the Tendering Documents
24.	64.1	Site handover shall be is When the Certificate of Completion is issued by the Project Manager, the Contractor shall handover the site and the works to the Employer **E. Discharge of the contract**
25.	66.2	The date by which "as built" drawings are required is **60 days** after substantial completion of works. The amount to be withheld for failing to produce "as built" drawings by the date required is TShs. **100,000.00** per day. The amount to be withheld for failing to produce operating and maintenance manuals by the date required is TZS ***100,000.00***

GENERAL CONDITIONS OF CONTRACT

Table of Clauses

Sec. IV

1.	1.1	The following words and expressions shall have the meanings hereby assigned to them: The **Adjudicator** is the person appointed by the Appointing Authority specified in the **SCC** to resolve contractual disputes in the first instance, and as provided for in GCC 30 [Disputes Resolution] hereunder. The **Arbitrator** is the person appointed by the Appointing Authority specified in the **SCC** to resolve contractual disputes, and as provided for in GCC 30 [Disputes Resolution] hereunder. **Bill of Quantities** -means the priced and completed Bill of Quantities forming part of the Tender. **Compensation Events** are those events provided for in GCC 53 [Compensation Events] The **Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with GCC 63.1 [Completion Certificate]. The **Contract** is the agreement entered between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC 2.3 [Interpretation] below. The **Contractor** is the person, whether natural or legal whose tender to carry out the Works has been accepted by the Employer. The **Contractor's Tender** is the completed Tender document submitted by the Contractor to the Employer. The **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract. **Days** are calendar days. **Day-works** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.

		A **Defect** is any part of the Works not completed in accordance with the Contract. The **Defects Liability Certificate** is the certificate issued by Project Manager upon correction of defects by the Contractor at the end of defect liability period. The **Defects Liability Period** is the period stated in the **Special Conditions of Contract** and calculated from the Completion Date. **Drawings** means the drawings of the works, as included in the contract and any additional or modified drawings issued by (or on behalf of) the employer in accordance with the contract **Effective Contract date** is the date shown in the Certificate of Contract Commencement issued by the Employer upon fulfilment of the conditions precedent stipulated in GCC 3 [Conditions Precedent]. The **Employer** means the person named as employer in the SCC and the legal successors in title to this person. **Equipment** is the Contractor's machinery and vehicles brought to the Site to execute the Works. The **Commencement Date** is the date when the Contractor shall commence execution of the Works as specified in the **Certificate of Contract Commencement**. The Commencement Date may be revised by the Project Manager in consultation with the employer by issuing an extension of time. The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works as specified in the **Special Conditions of Contract**. **Materials** are all supplies, including consumables, used by the Contractor for execution of the Works. **Months** mean calendar months. **Plant** is any integral part of the Works that shall have a mechanical electrical, chemical, or biological function.

		The **Project Manager** is the person named in the **Special Conditions of Contract** (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract. The **Site** is the area where works are to be executed as specified in the **SCC**. **Site Investigation Reports** are factual and interpretative reports about the surface and subsurface conditions at the Site that were included in the Tendering documents as indicated in the SCC. **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager. A **Subcontractor** is a person, whether natural or legal, who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site. **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works. A **Variation** is an instruction given by the Project Manager in consultation with the Employer, which varies the Works. **Force Majeure** means an unforeseeable event which is beyond reasonable control of either Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances. For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of a Party, and which makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances and

		includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood, epidemics, or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation. The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the **SCC**.
2. Interpretation	2.1	In interpreting these Conditions of Contract headings and marginal notes are used for convenience only and shall not affect their interpretations unless specifically stated; references to singular include the plural and vice versa; and masculine include the feminine.. Words have their ordinary meaning under the language of the Contract unless specifically defined.
	2.2	If sectional completion is specified in the **Special Conditions of Contract**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
	2.3	The documents forming the Contract shall be interpreted in the following order of priority: x. Form of Contract xi. Form of Tender xii. Special Condition of Contract xiii. General Condition of Contract xiv. Letter of Notification to award xv. Letter of Acceptance xvi. Negotiation minutes xvii. Priced Bill of Quantities xviii. Drawings.

3. Conditions Precedent	3.1	Having signed the Contract, it shall come into effect on the date on which the following conditions have been satisfied:- a) Submission of performance Security in the form specified in the SCC; and b) Furnishing of Advance Payment (if any) Unconditional Guarantee.
	3.2	If the Employer is satisfied that each of the conditions precedent in this contract has been satisfied (except to the extent waved by him, but subject to such conditions as he shall impose in respect of such waiver)he shall promptly issue to the contractor a certificate of Contract commencement, which shall confirm the start date.
	3.3	If the Conditions precedent stipulated on GCC 3.2 is not met by the date specified in the **SCC** this contract shall not come into effect;
4. Language and Law	4.1	The language of the Contract and the law governing the Contract are stated in the **SCC**.
5. Project Manager's Role	5.1	Except where otherwise specifically stated, the Project Manager will supervise execution of the contract between the Employer and the Contractor. The Project Manager shall have no authority to amend the contract.
6. Delegation	6.1	The Project Manager may, upon prior written consent of the employer and after notifying the contractor, delegate any of his duties and responsibilities to other people except to the Adjudicator, and may cancel any delegation after notifying the Contractor.
7. Communications	7.1	Communications between the Parties to the Contract shall be effective only when in writing whether in hard or electronic form that provides record of the content of the communication. A notice shall be effective when in writing only when it is delivered at the address specified in the **SCC**.

8. Sub-contracting	8.1	The Contractor may subcontract with the approval of the Project Manager, subject to consultation with the Employer. Subcontracting shall not alter the Contractor's obligations
9. Assignment	9.1	The Contractor shall not assign, transfer, pledge or make other disposition of this Contract or any part thereof or any of the contractor's rights, claim or obligation under this Contract without the prior written approval of the Employer.
10. Liability of Joint Venture	10.1	If the Contractor constitutes a joint venture, consortium or other unincorporated grouping of two or more persons: (a) These persons shall be jointly and severally liable to the Employer for the performance of the Contract; (b) These person shall notify the Employer of their leader who shall have the authority to bind the Contractor and each of these persons; and (c) The Contractor shall not alter its composition or legal status without the prior consent of the Employer.
11. Other Contractors	11.1	The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as referred to in the **SCC**. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.
12. Personnel	12.1	The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the **SCC**, to carry out the functions stated in the Schedule or other personnel approved by the Project Manager. The Project Manager will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are substantially equal to or better than those of

		the personnel listed in the Schedule.
	12.2	If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons for, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.
13. Employers and Contractor's Risks	13.1	The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.
14. Employers Risks	14.1	From the Commencement Date until the Defects Correction Certificate has been issued, the following are Employer's risks: (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to: (i) use or occupation of the Site for the purpose of the Works, which is the unavoidable result of the Works or (ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor. (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design.
	14.2	From the Completion Date until the Defects Correction Certificate has been issued, the risk of loss or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to: a. Defect which existed on the Completion Date, b. an event occurring before the Completion Date, which was not itself an Employer's risk, or c. the activities of the Contractor on the Site after the

		Completion Date.
15. Contractor's Risks	15.1	From the Commencement Date until the Defects Correction Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risks.
16. Insurance	16.1	The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Commencement Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the **SCC** for the following events which are due to the Contractor's risks: (a) loss of or damage to the Works, Plant, and Materials; (b) loss of or damage to Equipment; (c) loss of or damage to property (except the Works, plant, Materials, and Equipment) in connection with the Contract; and (d) personal injury or death.
	16.2	Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Commencement Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
	16.3	If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.
	16.4	Alterations to the terms of an insurance shall not be made without the written approval of the Project

		Manager.
	16.5	Both parties shall comply with any conditions of the insurance policies.
17. Site Investigation Reports	17.1	The Contractor shall, in executing the contract, rely on Site Investigation Reports referred to in the SCC and any supplemented information available to the Contractor.
18. Queries about Implementation of the Contract	18.1	The Project Manager will clarify queries on all Contractual matters.
19. Contractor to Execute the Works	19.1	The Contractor shall execute and install the Works in accordance with the terms and conditions of the Contract.
20. Commencement and Completion of Works	20.1	The Contractor may commence execution of the Works by the Commencement Date and shall carry out the Works in accordance with the Works Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.
21. Approval by the Project Manager	21.1	The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, who is to approve them if they comply with the Specifications and Drawings.
	21.2	The Contractor shall be responsible for design of Temporary Works.
	21.3	The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
	21.4	The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.
	21.5	All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager.

22. Protection of the environment	22.1	The Contractor shall take all reasonable steps to protect the environment and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
	22.2	The Contractor shall ensure that emissions, surface discharges and effluent from his activities shall not exceed limits prescribed in relevant environmental laws.
23. Labour Laws	23.1	The Contractor shall comply with all the relevant labour laws applicable in the United Republic of Tanzania, including laws relating to workers employment, social security, working hours, health, safety, welfare and immigration.
	23.2	The Contractor shall require his employees to obey all applicable laws, including those concerning safety at work.
24. Taxes and Duties	24.1	The Contractor, Sub-contractors and Personnel shall pay such taxes, duties, fees and other impositions as may be levied under the Laws of Tanzania unless otherwise stated in the **SCC**.
25. Health and Safety	25.1	The Contractor shall at all times take all reasonable precautions to maintain the health and safety of his personnel and the public as per the governing occupational, health and safety laws
	25.2	The Contractor shall ensure that first aid facilities are available at all times at the site and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics
	25.3	The Contractor shall notify the Employer details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety, and welfare of persons, and damage to the property, as the Employer may reasonably require.

	25.4	The Contractor shall conduct an HIV-AIDS awareness programme, and shall take other such measures as specified in the **SCC** to reduce the risk of transfer of HIV virus between and among Contractor's personnel, the Employers Staff and the surrounding community.

26. Discoveries	26.1	Anything of historical or other interest or of significant value unexpectedly discovered on, in, or under the land at the Site shall be the property of the Employer.
	26.2	The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.
	26.3	The Contractor shall take reasonable precautions to prevent his workers or any other persons from damaging such discoveries and shall immediately upon discovery thereof and before removal acquaint the Project Manager of such discovery and carry out at the expense of the Employer the instructions of the Project Manager.
27. Possession of the Site	27.1	The Employer may give possession of whole or parts of the Site to the Contractor as stated in the **SCC**. If possession is not given by the date stated in the **SCC**, the Employer will be deemed to have delayed the start of the relevant activities, and this will be a Compensation Event.
28. Access to the Site	28.1	The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.
29. Instructions, inspections and audits	29.1	The contractor shall comply with instructions given by the Project Manager in writing on any matter related to the contract
	29.2	The Contractor shall permit the Government, of the United Republic of Tanzania to inspect the Contractor's accounts and records relating to the performance of the Contract and to have them audited by auditors appointed by the Government of the United Republic of Tanzania if so required.
30. Disputes Resolution	30.1	In the event of any dispute arising out of this contract, either party shall issue a notice of dispute to settle the dispute amicably. The parties hereto shall, within twenty-eight (28) days from the notice date, use their

		best efforts to settle the dispute amicably through mutual consultations and negotiation. Any unsolved dispute may be referred by either party to an adjudicator nominated by the appointing Authority specified in the **SCC.**
	30.2	After the dispute has been referred to the adjudicator, within 30 days, or within such other period as may be proposed by the Parties, the Adjudicator shall give its decision. The rendered decision shall be binding to the Parties.
	30.3	If either Party is dissatisfied with the Adjudicator's decision may, within days specified in the **SCC** refer the dispute for arbitration. If either party within the period mentioned in the SCC has not referred the matter for arbitration the decision shall become final and binding to the Parties.

	30.4	The arbitration shall be conducted in accordance with the arbitration procedure published by the Institution named and in the place shown in the **SCC**.
31. Fees and Costs of Adjudicator	31.1	The rate of the Adjudicator's fee and administrative costs of adjudication shall be borne equally by the Parties. The rates and costs shall be in accordance with the rules of the Appointing Authority. In conducting adjudication to its finality each party shall bear its incurred costs and expenses.
32. Replacement of Adjudicator	32.1	Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract; a new Adjudicator will be appointed by the Appointing Authority.
33. Security of the Site	33.1	Unless otherwise stated in the **SCC**, (a) the Contractor shall be responsible for keeping unauthorised persons off the site, and (b) authorised persons shall be limited to the Contractor's and Employer's personnel, and to any other personnel and other Contractor notified to the Contractor by the Project Manager or Employer.
		B. Time Control
34. Program	34.1	Within the time stated in the **SCC**, the Contractor shall submit to the Project Manager for approval of the Work Program showing the method(s), arrangements, order and timing for all the activities of the Works.
	34.2	The Contractor shall submit to the Project Manager for approval an updated Works Program at intervals not longer than the period stated in the **SCC**. If the Contractor does not submit an updated Works Program within this period, the Project Manager may withhold the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the

		next payment after the date on which the overdue Program has been submitted.
	34.3	An update of the Works Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
	34.4	The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events if any.
35. Extension of the Intended Completion Date	35.1	The Employer may extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.
	35.2	The Employer shall, within twenty one (21) days of receipt of application for extension of the Intended Completion Date by the Contractor, decide whether or not to grant the extension. The application by the Contractor shall be granted only when supported by full information of a compensations event(s) or variation.
	35.3	In the event the Contractor has not issued an early warning notice of a delay or has failed to cooperate in dealing with a delay, such a delay or failure may be a ground for not granting the extension of the Intended Completion Date.

36. Acceleration	36.1	When the Employer wants the Contractor to finish the Works before the Intended Completion Date, the Project Manager will obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts the said proposals, the Intended Completion Date will be adjusted accordingly and confirmed by both the Employer and the Contractor.
	36.2	in the event the Contractor's priced proposals for acceleration of the Works are accepted by the Employer, they shall be incorporated in the Contract Price and treated as a Variation.
37. Delays Ordered by the Project Manager	37.1	The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.
38. Management Meetings	38.1	Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
	38.2	The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

39. Early Warning Notice	39.1	The Contractor shall give an early warning notice to the Project Manager at the earliest opportunity of specific likely future event(s) or circumstance(s) that may adversely affect the quality of the Works, increase the Contract Price or delay the execution of the Works. Upon receipt of the said Notice, the Project Manager may require the Contractor to provide an estimate of the expected effect of the future event(s) or circumstance(s) on the Contract Price and Intended Completion Date or Completion Date as the case may be. The estimate shall be provided by the Contractor as soon as reasonably possible.
	39.2	The Contractor shall cooperate with the Project Manager in making and considering proposals on how the effect of such an event(s) or circumstance(s) could be avoided or reduced by anyone involved in the Works and in carrying out any resulting Instruction of the Project Manager.

		C. Quality Control
40. Identifying Defects	40.1	The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities.
	40.2	The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.
41. Tests	41.1	The Project Manager may instruct the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and in the event the test shows that it does, the Contractor shall pay for the test and any samples thereof. If there is no Defect, the test shall be a Compensation Event.
42. Correction of Defects	42.1	The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period stated in the SCC, which begins from the Completion Date.
43. Extension of Defect Liability Period	43.1	Every time notice of a Defect is given, the Contractor shall correct the notified Defect(s) within the period of time specified in the Project Manager's notice.
	43.2	The Defects Liability Period may be extended by the Project Manager for as long as Defects remain to be corrected.
44. Uncorrected Defects	44.1	In the event the Contractor has not corrected a Defect(s) within the time specified in the Project Manager's notice, the Project Manager will assess the cost of having the Defect corrected, including any other related cost(s) and the Contractor will pay the said cost.
		D. Cost Control

45. Bill of Quantities	45.1	The Bill of Quantities shall contain items for the construction, installation, testing, and commissioning work to be done by the Contractor.
	45.2	The Bill of Quantities is used to calculate the Contract Price. The Contractor shall be paid for the quantity of the work done at the rate in the Bill of Quantities for each item.
46. Changes in the Quantities	46.1	If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change.
	46.2	The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Employer.
	46.3	If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.
47. Variations	47.1	All Variations shall be included in updated Work Programs produced by the Contractor.
48. Payments for Variations	48.1	The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.
	48.2	If the work in the Variation corresponds with an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work is not above the limit stated in GCC 44.1 [Uncorrected Defects] or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with

		items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of Work.
	48.3	If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
	48.4	If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.
	48.5	The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning notice.
49. Cash Flow Forecasts	49.1	When the Works Program is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.
50. Payment Certificates	50.1	The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.
	50.2	The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor within twenty-eight (28) days from the receipt of the statement.
	50.3	The value of work executed shall be determined by the Project Manager.
	50.4	The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.

	50.5	The value of work executed shall include the valuation of Variations, Compensation Events and Variation of Price.
	50.6	The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
	50.7	The Project Manager shall not be bound to certify any payment, if the net amount, after all retentions and deductions would be less than minimum amount of Interim Payment Certificate stated in the **SCC.**
51. Payments	51.1	Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within 28 days of the date of each certificate. If the Employer makes a late payment the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest issued by the Bank of Tanzania on the date of Contract signature for each of the currencies in which payments are made.
	51.2	If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.
	51.3	Unless otherwise stated, all payments and deductions will be paid or charged in the proportions of currencies comprising the Contract Price.
		Items of the Works for which no rate or price has been entered in will not be paid for by the Employer and shall

	51.4	be deemed covered by other rates and prices in the Contract. The currency of payment shall be stated in the SCC.
		Where payments are to be made in currencies other than ~~the Tanzania Shillings, the exchange rates to be used for~~
52. Currencies	52.1	calculating such amounts shall be the Bank of Tanzania exchange rate prevailing on the date of contract signature

53. Compensation Events	53.1	The following shall be Compensation Events: **(a)** The Employer does not give access to a part of the Site by the Site Possession Date stated in the **Special Conditions of Contract.** (b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract. (c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time. (d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects. (e) The Project Manager unreasonably does not approve a subcontract to be let. (f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to Tenderers (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site. (g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons. (h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor. (i) The advance payment is delayed. (j) The effects on the Contractor of any of the

		Employer's Risks. (k) The Project Manager unreasonably delays issuing a Certificate of Completion. (l) Other Compensation Events described in the Contract or determined by the Project Manager shall apply.
	53.2	If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall, upon consultation with Employer, decide whether and by, how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.
	53.3	As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, if agreed by the Employer, the Contract Price may be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager in consultation with Employer shall adjust the Contract Price based on the Project Manager's own forecast.
	53.4	The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning notice or not having cooperated with the Project Manager.

52. Effect of Changes in Tax Laws	54.1	The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 28 days before the submission of Tenders for the Contract and the date of the last Completion certificate.
	54.2	The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC 55 [Price Adjustment].
	54.3	In the event that the Laws Governing Taxes, Duties and other levies have changed between the signature date and the last completion certificate thereby affecting the Contract Price, the Employer and the Contractor, shall mutually adjust the contract price accordingly.
53. Price Adjustment .	55.1	The amounts payable to the Contractor, pursuant to GCC 50.1 [Payment Certificate], may be adjusted in respect of the rise or fall in the cost of labour, Contractor's Equipment, Plant, materials, and other inputs to the Works, by applying to such amounts the formulae prescribed in this clause.
	55.2	To the extent that full compensation for any rise in costs to the Contractor is not covered by the provisions of this or other clauses in the Contract, the unit rates and prices included in the Contract shall be deemed to include amounts to cover the contingency of such other rise of costs.
	55.3	The adjustment to be applied to amount payable to the Contractor as certified in Payment Certificates shall be determined by a formulae for each of the currencies in which the Contract Price is payable. No adjustment is to be applied to work valued on the basis of Cost or current prices. The formulae shall be as follows;

$$Pn = a + b\frac{Ln - Lo}{Lo} + c\frac{Mn - Mo}{Mo} + d\frac{En - Eo}{Eo} + etc.$$

where;

Pn is a price adjustment factor to be applied to the amount in each specific currency for the payment of the work carried out in the subject month, where such variations and daywork are not otherwise subject to adjustment;

a is a constant, specified in the **Appendix to Tender**, representing the nonadjustable portion in contractual payments;

b, c, d, etc., are weightings or coefficients representing the estimated proportion of each cost element (labor, materials, equipment usage, etc.) in the Works or sections thereof, net of Provisional Sums, as specified in the **Appendix to Tender**; the sum of a, b, c, d, etc., shall be one;

Ln, Mn, En, etc., are the current cost indices or reference prices of the cost elements in the specific currency of origin for month "**n,**" determined pursuant to CGC 55.5, applicable to each cost element; and

Lo, Mo, Eo, etc., are the base cost indices or reference prices corresponding to the above cost elements at the date specified in GCC 55.5

The value of net work done, certified by the Project Manager, in any monthly Interim or Final Certificate as payable by the Employer to the Contractor before deduction of any retention money shall be increased or decreased by an amount of **'F'**.

$$F = PnxPc$$

		where; The effective value **Pc** of work done which is to be subjected to increase or decrease shall be the difference between: (i) the amount which, in the opinion of the Project Manager, is due to the Contractor under GCC 44 [Uncorrected Defects] (before deduction of retention money and before deducting sums previously paid on account) less: • any amount for payment or repayment of any advance payment; • any amount for materials on site (if any); • any amounts for nominated sub-contractors (if any) • any amounts for any other items based on actual cost or current prices; or • any sums for increase or decreases in the Contract Price paid under GCC 55.3 and (ii) the amount calculated in accordance with (i) above of GCC 55.3 and included in the last preceding statement.
	55.4	The sources of indices shall be those listed in the **Appendix to Tender,** as approved by the Project Manager. Indices shall be appropriate for their purpose and shall relate to the Contractor's proposed source of supply of inputs on the basis of which his Contract Price and expected foreign currency requirements shall have been computed. As the proposed basis for price adjustment, the Contractor shall have submitted with his Tender the tabulation of Weightings and Source of Indices in the **Appendix to Tender,** which shall be subject to approval by the Project Manager.
	55.5	The base cost indices or prices shall be those prevailing on the day 28 days prior to the latest date for submission of Tenders. Current indices or prices shall be those prevailing on the day 28 days prior to the last day of the period to which a particular Interim Payment Certificate

		is related. If at any time the current indices are not available, provisional indices as determined by the Project Manager will be used, subject to subsequent correction of the amounts paid to the Contractor when the current indices become available
	55.6	If the Contractor fails to complete the Works within the time for completion prescribed under GCC 20 [Commencement and Completion of Works] adjustment of prices thereafter until the date of completion of the Works shall be made using either the indices or prices relating to the prescribed time for completion, or the current indices or prices, whichever is more favorable to the Employer, provided that if an extension of time is granted pursuant to GCC 35 [Extension of the Intended Completion Date], the above provision shall apply only to adjustments made after the expiry of such extension of time.
	55.7	The weightings for each of the factors of cost given in the **Appendix to Tender** shall be adjusted if, in the opinion of the Project Manager, they have been rendered unreasonable, unbalanced, or inapplicable as a result of varied or additional work already executed or instructed under GCC 48 [Payment for Variations] or for any other reason.
54. Retention	56.1	The Employer shall retain from each payment due to the Contractor the proportion stated in the **Special Conditions of Contract.** The total amount of retention shall not exceed the amount specified in the **Special Conditions of Contract**
	56.2	On completion of the whole of the Works, half the total amount retained shall be repaid to the Contractor and the other half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected.
	56.3	On completion of the whole Works, the Contractor may substitute retention money with an 'on demand" or

		unconditional Bank guarantee.
55. Liquidated Damages	57.1	The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the **SCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the maximum amount of performance security stated in the **SCC**. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.
	57.2	Where the Project Manager, after assessment of work progress, upon satisfaction that the Contractor will not complete the works within the contract period, may issue a notice to the Contractor requiring the payment of liquidated damages pursuant to GCC 57.1
	57.3	If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC 51.1 [Payments]

56. Bonus	58.1	If stated in the **Special Conditions of Contract** the Contractor shall be paid a Bonus calculated at the rate per calendar day for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.
57. Advance Payment	59.1	If stated in the SCC the Employer shall make advance payment to the Contractor of the amounts stated in the **SCC** by the date stated in **the SCC**, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Employer in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest will not be charged on the advance payment.
	59.2	The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.
	59.3	The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, as specified in the **SCC** following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.

58. Performance Securities	60.1	The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable as specified in the TDS and SCC and in accordance with the conditions of contract.
	60.2	The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee, and until one year from the date of issue of the Completion Certificate in the case of a Performance Bond
	60.3	Where circumstances necessitate the amendment of the contract after signature, and such amendment is effected, the Employer shall require the Contractor to provide additional Performance Security to cover any cumulative increase of more than ten percent of the Initial Contract Price.
59. Day-works	61.1	If applicable, the Day-works rates in the Contractor's Tender shall be used for small additional amounts of work only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.
	61.2	All work to be paid for as Day-works shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.

	61.3	The Contractor shall be paid for Day-works subject to obtaining signed Day-works forms.
60. Cost of Repairs	62.1	Loss or damage to the Works or Materials to be incorporated in the Works between the Commencement Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.
		E. Discharge of the Contract

61. Completion Certificate	63.1	The Contractor shall request the Project Manager to issue a certificate of Completion of the Works, and the Project Manager will so issue upon satisfaction that the work is completed.
62. Site Hand Over	64.1	When the Certificate of Completion is issued by the Project Manager, the Contractor shall handover the site and the works to the Employer within time specified in the **SCC**
63. Final Account	65.1	Upon the expiry of the defect liability period, the Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract. The Project Manager shall, within fifty six (56) days, verify the account and, upon satisfaction, certify any final payment due to the Contractor and thereafter issue a defect liability certificate.
	65.2	In the event the Project Manager is not satisfied with the Account submitted by the Contractor pursuant to sub-GCC 65.1, shall within 56 days issue a schedule of correction. If the final account remains unsatisfactory after it has been re-submitted, the Project Manager shall, upon consultation with the Employer, decide on the amount payable to the Contractor and issue a payment certificate.
64. Operating and Maintenance Manuals	66.1	The Contractor shall supply to the Employer the "as built" Drawings and/or operating and maintenance manuals and any other related documents by the handover period stipulated pursuant to GCC 64.1 [Site Hand Over].
	66.2	If the Contractor does not supply the Drawings and/or

		manuals stated in GCC 66.1 by the dates specified pursuant to GCC 64.1 [Site Hand Over] or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount stated in the **Special Conditions of Contract** from payments due to the Contractor.
65. Termination	67.1	The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.
	67.2	Fundamental breaches of Contract shall include, but shall not be limited to, the following: a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Works Program and the stoppage has not been authorized by the Project Manager; b) the Project Manager instructs the Contractor in writing to delay the Works progress, and the instruction is not withdrawn in writing within 28 days; c) contractor's failure to submit performance security within the time stipulated in the SCC; d) the Employer or the Contractor is declared bankrupt or goes into liquidation other than for a reconstruction or amalgamation; e) a payment certified by the Project Manager is not paid by the Employer to the Contractor after 84 days from the date of the Project Manager's certificate; f) Failure of the Contractor to correct the defect after lapse of time specified in the notice to correct defects issued by the Project Manager.; g) where the Contractor fails to furnish and maintain the required Site Security pursuant to GCC 33.1 [Security of the Site};

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH

Telegrams: "AFYA", DODOMA
Telephone: +255 026 2323267
Email: Ps@afya.go.tz.
(All letters should be addressed to The Permanent Secretary)

Government City- Mtumba
Afya Street
P. O. Box 743
40478 DODOMA

Ref. No.CAB 209/549/01A/ 264

29th March, 2022

M/s Nandhra Engineering & Construction,
P.O. Box 1542,
DAR ES SALAAM.

RE: NOTIFICATION OF CONTRACT AWARD FOR TENDER NO. ME/007/2021-2022/HQ/W/15 PROPOSED CONSTRUCTION OF TWO STOREY OPD BUILDING AT LINDI RRH PROCUREMENT UNDER TANZANIA COVID 19NSOCIAL ECONOMIC RECOVERY PLAN (TCRP)

Reference is made to the above heading.

2. Please be informed that, your Tender No: **ME/007/2021-2022/HQ/W/15** submitted was approved by Ministerial Tender Board held on 18th March, 2022.

3. The contract is hereby accepted by the Ministry of Health at a Contract sum of **Tanzania Shillings Two Billion Seven Hundred Million (2,700,000,000) VAT Inclusive.**

Thank you for your cooperation.

Prof. Abel N. Makubi
PERMANENT SECRETARY

Copy: Chief Executive Officer
Public Procurement Regulatory Authority
P. O. Box 2865
Dodoma

Copy : The Controller and Auditor General
P. O. Box 950
Dodoma

Copy : Attorney General
Attorney General Chambers
Ministry of Justice and Constitutional Affairs
P. O. Box 630
Dodoma.

Copy : Director
Technical Audit Unit
Ministry of Finance
P. O. Box 2802
Dodoma

Copy : Internal Auditor General
Ministry of Finance and Planning
P. O. Box 2802
Dodoma

Copy : Regional Manager,
Tanzania Revenue Authority,
P.O.Box 679
Dodoma

LETTER OF ACCEPTANCE

NANDHRA
ENGINEERING & CONSTRUCTION COMPANY LTD
Building your vision
Since 1983

Our Ref: NECC/MOH/LINDI - OPD/14/2020

5th April 2022

The Permanent Secretary,
Ministry of Health, Community Development, Gender, Elderly and Children,
P. O. Box 743, 40478
Dodoma

Dear Sir,

REF: TENDER NO. ME/007/2021-2022/HQ/W/15 For PROPOSED CONSTRUCTION OF TWO STOREY OPD BUILDING FOR LINDI RRH

SUB: AWARD OF TENDER

We acknowledge with thanks receipt of your Award letter for the above named works, with ref. CAB 209/549/01A/264 dated 29th March 2022, vide which you informed us on awarding the above mentioned contract at a sum of **TShs. 2,700,000,000.10 VAT Inclusive**.

We shall now await for your further instructions on signing of the Contract and Site possession.

We once again wish to thank your office for awarding the works to our firm.

Assuring you of our best services and quality as usual.

We remain

Yours faithfully,
NANDHRA ENGINEERING & CONSTRUCTION COMPANY LIMITED

NANDHRA ENGINEERING & CONSTRUCTION COMPANY LTD
Building & Civil Contractors
P. O. Box 405 - Morogoro

DIRECTOR

Regd. Office:
P.O. Box 405, Morogoro, Tanzania
info@nandhra.co.tz

Corporate Office:
Kipawa Area, Nyerere Road, Plot No. 113/A
P.O.Box 1512, Dar-es-Salaam, Tanzania

NEGOTIATION MINUTES

UNITED REPUBLIC OF TANZANIA
MINISTRY OF HEALTH

MINUTES OF NEGOTIATION MEETING HELD ON 08/02/2022 IN THE MOH OFFICE - NHIF BUILDING AT 14:00 HRS

1. TENDER PARTICULARS

NAME OF THE PROCURING ENTITY: MINISTRY OF HEALTH

TENDER ID NO.: ME/007/2021/22/HQ/W/15

TENDER NAME: PROPOSED CONSTRUCTION OF TWO STONEY OPD BUILDING FOR LINDI RRH UNDER TANZANIA COVID 19 SOCIAL ECONOMIC RECOVERY PLAN (TCRP)

TENDERER: M/S NANDHRA ENGINEERING & CONSTRUCTION CO.LTD

LOCATION: MINISTRY OF HEALTH - HEAD QUARTER NHIF BUILDING DODOMA

2. ATTENDANCE

S/N	NAME	POSITION	INSTITUTION
1	ARCH. ADRIAN IRONGO	Chairman	MOH
2	ELIAKIM MAYAGE	Member	MOH
3	ENG. RAMADHANI YASSIN	Member	NECC LTD
4	MARIA ANYIMIKISYE	Secretary	MOH
5	QS. ANANIA SAUDENI	Member	ABECC LTD
6			

3. OPENING

The chairman opened the meeting at 14:00 hrs and invited negotiation team members to introduce themselves. Members were from Ministry of Health, ARU Built Environment Consulting Company Limited (ABECC) and Nandhra Engineering & Construction Co. Ltd.

4. INTRODUCTION.

It was elaborated that the main objective of the meeting was to discuss and agree on the contractual matters that will bind parties before entering into the contract.

It was further clarified that the meeting will follow the approved parameters of the negotiation plan.

5. PROCEEDING.

NEGOTIATION PARAMETER	AGREEMENT (WITH FULL DETAILS)
1. Scope of work	• Members confirmed the scope of the works as described in the bills of quantity page 3 of element number one "Construction of two storey building with approximately 3715 sq.meters total gross floor area for Out patients Department and Otolaryngology and the associated external works" • Contractor agreed to abide with provided specification in the contractor. • Contractor was notified that this project will be implemented in two phases. This first phase will cover a scope of TZS. 2,700,000,000/= while the remaining TZS. 1,200,000,000/= will be in phase II. These was agreed by both parties.
2. Contract Price	• Client requested the Contractor to reduce the contract price by 5%, Contractor did not agreed with the request instead he agree to reduce the contract price from Tshs. 3,977.600,942/= by 1.95% which is equals to Tshs. 77,600,942/= • The agreed Final Contract Price is **Tshs. 3,900,000,000/=**
3. Compensation Event	• Contractor was informed that there will be no extra time to be granted if works will not be finished on time, Contractor agreed that works will be completed within contract duration. • It was agreed the Liquidated amount to be as per contract.
4. Payment Modalities	• Members agreed that the minimum amount of interim certificate should be Tshs. 200,000,000/= • Members agreed that there will be no payment to be effected if

	Performance, Advance guarantee and Insurances are not in place. • Members also agreed that advance payment recovery will commence in the second Interim Payment Certificate. • Members agreed that Client will pay the contractor within 30 days from the date of submission by Project Manager as per contract.
5. Liabilities	• Contractor agreed that all materials approved by Project Manager and specifications will be followed accordingly. • Members agreed that Contractor will submit a retention bond covering the remaining retention money that is 2.5% of contract sum for the retention money to be released. Bond validity will be **15 months** from commencement date of Defect Liability Period. • Members also agreed that test of materials will be done accordingly in the reputable Laboratory under Project Manager's supervision.
6. Securities	• It was agreed that Contractor will submit Performance and Advance guarantee in the form of Bank guarantee soon after contract signing. • Contractor will submit Contractor's All Risks Insurance from a reputable Insurance Company within Seven days from the date of site possession.
7. Staffing	• Contractor declared that key staff will be deployed on site as provided in the contract with the same qualifications.
8. Work duration	• Members agreed that commencement of the work will be the last week of February, 2022. • Contract duration was agreed to remain **6 months** as described in the special conditions of contract from the date of contract signing. Since the work will be done in two phases, it was agreed that first phase will be completed within **4 months** and the second phase will be completed within **2 months.** The contract sum will remain fixed for 6 months after end of phase

	I; where the client will ensure that phase II commence within this period, failure to do that the post negotiation will be tabled.
9. Work Schedule	• Contractor will submit a realistic master work programme together with Procurement plan, Cash flow projection and CVs of key staffs soon after site handing over.

Closing

The meeting was officially closed at 17:00 hrs and the Chairperson thanked all members for their active participation and reaching a common understanding on the way forward.

We hereby clarify that the above is a true and accurate record of the negotiations.

For the Ministry of Health	For Nandhra Engineering & Construction Co. ltd
Signature:	Signature:
Name: ARCH. ADRIAN IRONKD	Name: Eng. Ramadhani Yassin
Position: CHAIRMAN	Position: Member
Date: 08TH FEB. 2022	Date: 08th Feb. 2022.

RECORD OF NEGOTIATIONS

Name of the Procuring Entity: *Ministry of Health*
Tender ID No.: ME/007/2021/22/HQ/W/15
Subject of Procurement: Proposed construction of two stoney OPD Building for Lindi RRH Tanzania Covid 19 Social Economic Recovery Plan (TCRP)
Method of Procurement: *Restricted Procurement Method*
Date of Negotiation: *08/02/2022*

PART 2: RECORD OF ATTENDANCE AT NEGOTIATIONS

SN	Name	Position	Name of Tenderer /Firm	Signature
01	ARCH. ADRIAN IRONGO	Chairperson	MoH	
02	ELIAKIM MAYAGE	Member	MoH	
03.	Eng. Ramadhani Yussin	Member	NECC LTD	
04	MARIA MWIMIKISYE	Secretary	MOH	
05	Qs. Anania Saudoni	Member	ABECC	

RECORD OF RE-NEGOTIATIONS

Name of the Procuring Entity: MINISTRY OF HEALTH P.O BOX 743 DODOMA

Tender ID No: ME/007/2021-2022/HQ/W/26

Subject of Procurement: PROPOSED CONSTRUCTION OF TWO STOREY OPD BUILDING FOR LINDI RRH AT LINDI REGION – PROCUREMENT UNDER TANZANIA COVID-19 SOCIAL ECONOMIC RECOVER PLAN (TCRP)

Method of Procurement: NATIONAL RESTRICTED TENDERING

Date of Negotiation: 28th April, 2022

PART 1: RECORD OF NEGOTIATIONS	
ISSUE	**AGREEMENT (WITH FULL DETAILS)**
Liabilities	We agreed that; - 1. The contractor shall Submit unconditional bank guarantee for retention amount of 2.5% of the contract value to safeguard government money for phase I Ground Floor Completion and this retention amount will cover all snags and any needed corrections.
Duration of the Project	We agreed that; - 1. Project execution of the contract shall be three months start from April, 2022 to 30th June, 2022 for phase I completion
Advance Payment	We agreed that; - 1. The contractor requesting advance payment to change from 15% as per clause 22 of SCC to 30% of the contract price upon submission of unconditional bank guarantee from reputable bank and will be verified prior payment of the advance amount. The team agreed with this request because of the time for the execution of work they need to have enough cash

	flow in order to meet the expected time frame
Security	We agree that; - 1. The contractor requesting Performance Security 10% of the contract value as per clause 23 of SCC to change from Bank Guarantee to Premium Insurance Bonds from National Insurance Corporation (NIC) to safeguard the works during execution of the project. Upon the request of the contractor, the team agree to use Performance Bond from National Insurance Corporation (NIC).

We hereby certify that the above is a true and accurate record of the negotiations:

For the Procuring Entity	For the Tenderer/Supplier
Signature:	Signature:
Name: Arch. Adrian Irongo	Name: GURTEJ SINGH NANDHRA
Position: Chairperson	Position: DIRECTOR
Date: 28/04/2022	Date: 28/04/2022

Document attached:

Minutes of the Negotiation meeting

RECORD OF NEGOTIATIONS

Name of the Procuring Entity: MINISTRY OF HEALTH P.O BOX 743 DODOMA

Tender ID No: ME/007/2021-2022/HQ/W/26

Subject of Procurement: PROPOSED CONSTRUCTION OF TWO STOREY OPD BUILDING FOR LINDI RRH AT LINDI REGION – PROCUREMENT UNDER TANZANIA COVID-19 SOCIAL ECONOMIC RECOVER PLAN (TCRP)

Method of Procurement: NATIONAL COMPETITION TENDERING

Date of Negotiation: 28th April, 2022

PART 2: RECORD OF ATTENDANCE AT NEGOTIATIONS

SN	Name	Position	Name of Tenderer /Firm	Signature
01	Arch. Adrian Irungu	Chairperson	MoH	
02	Edson Elias	Secretary	MoH	
03	GURTEJ SINGH NANDHRA	DIRECTOR	NECC	
04	KULWANT SINGH NANDHRA	DIRECTOR	NECC	
05	RENATUS MOMLO	MEMBER	MoH	

MINUTES OF PRE-CONTRACT RE-NEGOTIATIONS MEETING FOR THE PROPOSED CONSTRUCTION OF TWO STOREY OPD BUILDING FOR LINDI RRH AT LINDI REGION – PROCUREMENT UNDER TANZANIA COVID-19 SOCIAL ECONOMIC RECOVER PLAN (TCRP)

Tender No. ME/007/2021-2022/HQ/W/26

Venue: H/Building office 6 Floor NHIF Building Dodoma

Date: 28th April, 2022

1. PARTICIPANTS

1.1 Arch. Adrian Irongo - Chairman – MOH

1.2 Mr. Edwin Elias - Secretary - MOH

1.3 Mr. Renatus Monko - Member - MOH

1.4 Mr. Gurtej Singh - Nandhra Engineering & Construction Co. Ltd Nandhra

1.5 Mr. Kulwant Singh Nandhra Engineering & Construction Co. Ltd Nandhra

2. INTRODUCTION

The Government of the United Republic of Tanzania has received Fund from IMF for the operations of Ministry of Health under COVID-19 Social Economic Recovery Plan (TCRP) for the Financial Year 2021-2022. Procurement of the Works has been done through National Restricted Tendering process in accordance with the procedures set out in the Public Procurement Act No. 7 of 2011 and the Public Procurement Regulations, 2013 – Government Notice No. 446 and Amendment of 2016 via TANePS. The Ministerial tender board has approved the recommendation for re-negotiation plan for Tender ME/007/2021-2022/HQ/W/26 for the PROPOSED CONSTRUCTION OF TWO STOREY OPD BUILDING FOR LINDI RRH AT LINDI REGION – PROCUREMENT UNDER TANZANIA COVID-19 SOCIAL ECONOMIC RECOVER PLAN (TCRP) to M/S NANDHRA ENGINEERING & CONSTRUCTION LIMITED of P.O BOX 1512 DAR ES SALAAM and the offer may be acceptable subject to successful pre-contract negotiation.

2.1 Key issues for Pre-Contract Re-Negotiation were based on the following agenda:

a) Opening of the meeting & adoption of the agenda
b) Liabilities
c) Duration of the project
d) Advance Payment
e) Security
f) Any Other Business
g) Closing

3.0 OPENING OF THE MEETING

The meeting was opened at 15:10 P.M. by the Chairman, followed by the self-introduction of the participants. The agenda of the meeting was distributed to the participants and was adopted.

4.0 PROCEEDINGS

The Chairperson welcomed the member to contribute on the discussion for the Proposed Construction of Two Storey OPD Building for Lindi RRH at Lindi Region – Procurement Under Tanzania COVID-19 Social Economic Recovery Plan (TCRP) to M/S NANDHRA ENGINEERING & CONSTRUCTION LIMITED of P.O BOX 1512 DAR ES SALAAM as main subject of the meeting

4.1 Liabilities

We agreed that; -

1. The contractor shall Submit unconditional bank guarantee for retention amount of 2.5% of the contract value to safeguard government money for phase I Ground Floor Completion and this retention amount will cover all snags and any needed corrections.

4.2 Duration of the Project

We agreed that; -

1. Project execution of the contract shall be three months start from April, 2022 to 30th June, 2022 for phase I completion

4.3 Advance Payment

We agreed that; -

1. The contractor requesting advance payment to change from 15% as per clause 22 of SCC to 30% of the contract price upon submission of unconditional bank guarantee from reputable bank and will be verified prior payment of the advance amount.

   The team agreed with this request because of the time for the execution of work they need to have enough cash flow in order to meet the expected time frame.

4.4 Security

We agree that; -

1. The contractor requesting Performance Security 10% of the contract value as per clause 23 of SCC to change from Bank Guarantee to Premium Insurance Bonds from National Insurance Corporation (NIC) to safeguard the works during execution of the project.

   Upon the request of the contractor, the team agree to use Performance Bond from National Insurance Corporation (NIC).

5. AOB

The team agreed that, the first negotiation record which was held on 08/02/2022 shall be read together with this re-negotiation record as amendment of some of the clause for the benefit of Government interest.

6. Closing

The meeting was closed at 16: 15 P.M.

Signed on behalf of:

The Client

.....

Signature

Name: Arch. Adrian Irongo

Position: **Chairperson, Negotiation Team**

Suppliers Name

.....

Signature

Name: Mr. Gurtej Singh Nandhra

Position: Director - Nandhra Engineering & Construction Co. Ltd

Date confirmed: 28 4 2022

PRICED BILL OF QUANTITIES

ABECC
ARU BUILT ENVIRONMENT CONSULTING COMPANY LTD

Aru Built Environment Consulting Company Ltd
University Road, Survey
P. O. Box 35700,Dar es Salaam, Tanzania.
+255 (22) 277 127, 277 5004, 277 5479
Email: abecc@aru.ac.tz

ABECC/GEN/14

08th March, 2022

Permanent Secretary,
Ministry of Health,
University of Dodoma, Faculty of Social Science and
Community Development, Building No. 1,
P.O Box 743,
40478 Dodoma.

Dear Sir,

RE: PROPOSED CONSTRUCTION OF TWO STOREY OPD BUILDING AT LINDI RRH PROCUREMENT UNDER TANZANIA COVID 19N SOCIAL ECONOMIC RECOVERY PLAN (TCRP) **CONTRACT NO.**

Sub: Submission of Re-Scoped Bills of Quantities (BOQ) for Lindi OPD

In response to your letter of 14th February 2022, with **Ref. No. BC. 13/446/06,** kindly find enclosed herewith re-scoped BOQ to fit the said phase one budget of 2.70 billion Tanzanian Shillings.

This Budget as submitted in the bill will cover the following work items;

1. Substructure
2. Frame
3. Stairs
4. Walling Ground Floor
5. Door Ground Floor
6. Windows Ground Floor
7. Finishing Ground Floor
8. Painting and Decoration Ground Floor
9. Plumbing Installation Ground Floor
10. Electrical Installation Ground Floor
11. HVAC Installation Ground Floor
12. Foul Water Drainage
13. Medical Gas Ground Floor First Fix Only
14. Laboratory Gas Ground Floor
15. Laboratory Drainage

Yours faithfully,

NECL
NANDHRA ENGINEERING & CONSTRUCTION COMPANY LTD
Building & Civil Contractors
P. O. Box 405 - Morogoro

ABECC
ARU BUILT ENVIRONMENT CONSULTING COMPANY LTD

Aru Built Environment Consulting Company Ltd
University Road, Survey
P. O. Box 35700,Dar es Salaam, Tanzania.
+255 (22) 277 127, 277 5004, 277 5479
Email: abecc@aru.ac.tz

ARCHITECTS AND QUANTITY SURVEYORS
Aru Built Environment Consulting Co. Ltd
QPL 148.192.9/19
Sign:
REGISTRATION BOARD
TANZANIA

Qs. Dr. Godwin Maro
For Managing Director - ABECC

c.c Nandra Engineering and Construction Co. Ltd
c.c CPI International Ltd
c.c ML Engineering Consultancy Ltd
c.c Manager Director ABECC (on file)
c.c Consultancy Manager ABECC (on file) Encl.

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NR. 1: SUBSTRUCTURE				
	(PROVISIONAL)				
	EXCAVATION AND EARTHWORKS				
A	Clear site of bushes, scrub, undergrowth and the like including grubbing up their roots	2010	m^2	2,000.00	4,020,000.00
B	Excavate oversite average 200mm deep to remove top soil, convey average 50 linear meters and deposit in temporary spoil heaps	2010	m^2	2,000.00	4,020,000.00
C	Excavate foundation trenches commencing at stripped level and not exceeding 1.50meters deep	544	m^3	5,500.00	2,992,000.00
D	Excavate pit for column, lift bases and the like, commencing at stripped level and not exceeding 1.50meters deep	1076	m^3	5,500.00	5,918,000.00
E	Extra over any kind of excavation for breaking up rock and the like	16	m^3	20,000.00	320,000.00
F	Earth filling of selected imported excavated material well rammed and consolidated around foundations	1083	m^3	9,500.00	10,288,500.00
G	300mmn Thick earth filling of imported selected excavated material, well rammed and consolidated to make up levels under floors	1358	m^2	9,500.00	12,901,000.00
H	Ditto; with surfaces graded to falls (*ramps*)	4	m^2	9,500.00	38,000.00
J	Load up surplus excavated material and remove from site	537	m^3	11,500.00	6,175,500.00
	Disposal of water				
K	Allow for keeping all excavations free from general water (except spring or running water) by pumping, bailing or by other means necessary		Item		2,500,000.00
	Plunking and Strutting				
L	Allow for the provision and subsequent removal of plunking and strutting to up hold and maintain all faces of excavations		Item		2,500,000.00
	To Collection			**TZS**	**51,673,000.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	SUBSTRUCTURE (Cont'd)				
	Hardcore				
A	200mm Bed levelled and blinded to receive damp proof membrane	1358	m^2	15,000.00	20,370,000.00
B	Ditto; with surfaces graded to falls (*ramps*)	4	m^2	15,000.00	60,000.00
	Soil sterilization				
C	"Gammalin" solution or any other equal and approved type applied at a rate of 7 litres per square metre to hardcore beds	1362	m^2	8,000.00	10,896,000.00
D	"Gammalin" solution or any other equal and approved type applied at a rate of 8 litres per linear metre per 600mm deep per 235mm wide to backfill to one side of foundation wall	316	m	3,000.00	948,000.00
	CONCRETE WORK				
	Plain Concrete grade "10"				
E	50mm Blinding	311	m^2	15,000.00	4,665,000.00
	Plain concrete Grade "15"				
F	Foundations	160	m^3	220,000.00	35,200,000.00
	Reinforced concrete grade '30' with cube strength at 28 days; 25N/mm; including vibrating around reinforcement				
G	Isolated column bases	135	m^3	320,000.00	43,200,000.00
H	Lift base	6	m^3	320,000.00	1,920,000.00
J	Columns	15	m^3	320,000.00	4,800,000.00
K	Ground beams	31	m^3	320,000.00	9,920,000.00
	To Collection			**TZS**	**131,979,000.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	SUBSTRUCTURE (Cont'd)				
	CONCRETE WORK				
	Reinforced concrete grade '30' with cube strength at 28 days; 25N/mm; including vibrating around reinforcement				
A	150mm Thick lift wall	14	m^2	320,000.00	4,480,000.00
B	150mm Thick bed	1565	m^2	48,000.00	75,120,000.00
C	150mm Thick ramp	4	m^2	48,000.00	192,000.00
	Reinforcement				
	Steel fabric reinforcement BS 252				
D	Square mesh fabric ref. A193 weighing 2.22Kg per square metres	1569	m^2	15,000.00	23,535,000.00
	High tensile steel bars reinforcement to BS 4466:1969 with a minimum yield stress of 460N/mm				
E	20mm Diameter bars	4462	kg	2,800.00	12,493,600.00
F	12mm Diameter bars	7300	kg	2,800.00	20,440,000.00
G	Assorted bars (*Lift wall below plinth level, Provisional*)	336	kg	2,800.00	940,800.00
	Mild steel round bars reinforcement to BS 4466:1969 with a minimum yield stress of 250N/mm				
H	8mm Diameter bars	2280	kg	2,800.00	6,384,000.00
	To Collection			**TZS**	**143,585,400.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	SUBSTRUCTURE (Cont'd)				
	CONCRETE WORK				
	Sawn formwork to:				
A	Vertical or battering sides of foundations, column bases and the like.	403	m^2	18,000.00	7,254,000.00
B	Vertical or battering sides of columns	204	m^2	18,000.00	3,672,000.00
C	Vertical or battering sides of lift wall	28	m^2	18,000.00	504,000.00
D	Vertical or battering sides of ground beams	271	m^2	18,000.00	4,878,000.00
E	Vertical edges of beds over 75mm but not exceeding 150mm high	316	m	4,000.00	1,264,000.00
	WALLING				
	Solid concrete blocks to BS 2828 type 'A' bedded and jointed in cement mortar (1:3)				
F	230mm Wall	1038	m^2	40,000.00	41,520,000.00
	Damp-proof Courses				
G	Hessian based bitumen damp proof course to BS 743 type 5A 230mm wide laid horizontally on blockwork	902	m	4,000.00	3,608,000.00
H	500Gauge polythene damp proof membrane laid over blinded hardcore bed (measured separately)	1362	m^2	8,000.00	10,896,000.00
	To Collection			**TZS**	**73,596,000.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	SUBSTRUCTURE (Cont'd)				
	Sundries				
A	12mm Cement and sand (1:3) external rendering to concrete or blockwall	142	m^2	9,000.00	1,278,000.00
B	Prepare and apply two coats of black bituminous paint on rendered or concrete surface, externally	142	m^2	8,000.00	1,136,000.00
	To Collection			**TZS**	**2,414,000.00**
	COLLECTION				
	Page 2/1/1				51,673,000.00
	Page 2/1/2				131,979,000.00
	Page 2/1/3				143,585,400.00
	Page 2/1/4				73,596,000.00
	Page 2/1/5				2,414,000.00
	ELEMENT NR. 1: SUBSTRUCTURE CARRIED TO SUMMARY OF BILL NR. 2			**TZS**	**403,247,400.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NR. 2: FRAME				
	CONCRETE WORK				
	Reinforced concrete grade '30' with cube strength at 28 days; 25N/mm; including vibrating around reinforcement				
A	Columns	74	m^3	320,000.00	23,680,000.00
B	Horizontal and sloping beams not exceeding 15 degrees from horizontal	136	m^3	320,000.00	43,520,000.00
C	150mm Thick horizontal suspended floor slabs	1472	m^2	48,000.00	70,656,000.00
C	150mm Thick horizontal suspended roof slab	47	m^2	48,000.00	2,256,000.00
D	150mm Thick lift walls	59	m^2	48,000.00	2,832,000.00
E	Sunshading copping/canopy (*Provisional*)	13	m^3	320,000.00	4,160,000.00
	Reinforcement				
	High tensile steel bars reinforcement to BS 4466:1969 with a minimum yield stress of 460N/mm				
F	20mm Diameter bars	9140	kg	2,800.00	25,592,000.00
G	16mm Diameter bar	17456	kg	2,800.00	48,876,800.00
H	12mm Diameter bars	28123	kg	2,800.00	78,744,400.00
J	Assorted bars (*Sunshading, Provisional*)	2033	kg	2,800.00	5,692,400.00
	Mild steel round bars reinforcement to BS 4466:1969 with a minimum yield stress of 250N/mm				
K	8mm Diameter bars	5921	kg	2,800.00	16,578,800.00
	To Collection			**TZS**	**322,588,400.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	FRAME (Cont'd)				
	CONCRETE WORK				
	Sawn formwork to:				
A	Horizontal soffits of suspended slab	1337	m^2	18,000.00	24,066,000.00
B	Vertical or battering sides of columns	982	m^2	18,000.00	17,676,000.00
C	Vertical or battering sides of lift walls	117	m^2	18,000.00	2,106,000.00
D	Sides and soffits of horizontal beams	1545	m^2	18,000.00	27,810,000.00
E	Sides and soffits of openings in wall	2	m^2	18,000.00	36,000.00
F	Vertical edges of suspended slab over 75mm but not exceeding 150mm high	324	m	4,000.00	1,296,000.00
G	Sides and soffits of sunshading canopy (Provisional)	146	m^2	18,000.00	2,628,000.00
	To Collection			**TZS**	**75,618,000.00**
	COLLECTION				
	Page 2/2/1				322,588,400.00
	Page 2/2/2				75,618,000.00
	ELEMENT NR. 2: FRAME CARRIED TO SUMMARY OF BILL NR. 2			**TZS**	**398,206,400.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NR. 3: STAIRS				
	CONCRETE WORK				
	Reinforced concrete grade '30' with cube strength at 28 days; 25N/mm; including vibrating around reinforcement				
A	Stairs	10	m^3	320,000.00	3,200,000.00
B	Horizontal and sloping beams not exceeding 15 degrees from horizontal	1	m^3	320,000.00	320,000.00
C	150mm Horizontal suspended landing	29	m^2	48,000.00	1,392,000.00
	Reinforcement				
	High tensile steel bars reinforcement to BS 4466:1969 with a minimum yield stress of 460N/mm				
D	16mm Diameter bars	1519	kg	2,800.00	4,253,200.00
E	12mm Diameter bars	538	kg	2,800.00	1,506,400.00
	Sawn formwork to:				
F	Sides and soffits of horizontal beams	13	m^2	18,000.00	234,000.00
G	Horizontal soffits of suspended landings	26	m^2	18,000.00	468,000.00
H	Sloping soffits of stairs	43	m^2	18,000.00	774,000.00
J	Vertical risers over 150mm but not exceeding 225mm high	126	m	4,000.00	504,000.00
	To Collection			**TZS**	**12,651,600.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	STAIRS (Cont'd)				
	CONCRETE WORK				
	Sawn formwork to:				
A	Vertical edges of landing over 75mm but not exceeding 150mm high	36	m	4,000.00	144,000.00
B	Vertical sides of stair string 330mm (extreme) high including cutting to profile of treads and risers	41	m	5,000.00	205,000.00
	BALUSTRADE (PROVISIONAL)				
	METAL WORK				
	Mild steel				
C	75mm Diameter round hollow section PVC coated handrail welded to vertical balusters	33	m	28,000.00	924,000.00
D	50mm Diameter circular hollow section middle rail welded to vertical balusters	33	m	25,000.00	825,000.00
E	50x50mm Rectangular hollow section balusters 900mm high with top ends welded to handrail and bottom ends embedded to concrete	40	nr	25,000.00	1,000,000.00
F	75x75mm Rectangular hollow section corner balusters 900mm high with top ends welded to 5mm thick plates (m.s) and bottom ends fixed with anchor bolts to concrete (m.s)	4	nr	28,000.00	112,000.00
G	165x50x5mm Thick angle section plate welded to top of corner baluster	4	nr	30,000.00	120,000.00
	To Collection			**TZS**	**3,330,000.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	STAIRS (Cont'd)				
	BALUSTRADE (PROVISIONAL)				
	METAL WORK				
	Mild steel				
A	125x200x5mm Thick plate welded to baluster and bolted to concrete	4	nr	32,000.00	128,000.00
B	275mm long x 20mm Diameter rods welded to baluster	8	nr	25,000.00	200,000.00
C	20mm Diameter anchor bolt, 300mm long complete with nuts and washer	8	nr	5,000.00	40,000.00
	Stainless steel				
D	5mm Thick bracket cut to shape welded to baluster	8	nr	10,000.00	80,000.00
	Moulded Hardwood				
E	150 x 75mm hardwood handrail bolted to concrete work and complete with all necessary accessories	17	m	45,000.00	765,000.00
	Sundries				
F	Make a hole through 5mm thick mild steel plate for 20mm diameter bolts	8	nr	3,000.00	24,000.00
G	Scribe welded joint and grid to smooth finish between baluster and rails	288	nr	3,000.00	864,000.00
H	150mm x 150mm Hole in concrete 100mm deep including grouting with cement mortar (1:3)	40	nr	5,000.00	200,000.00
	To Collection			**TZS**	**2,301,000.00**
	COLLECTION				
	Page 2/3/1				12,651,600.00
	Page 2/3/2				3,330,000.00
	Page 2/3/3				2,301,000.00
	ELEMENT NR. 3: STAIRS CARRIED TO SUMMARY OF BILL NR. 2			**TZS**	**18,282,600.00**

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	ELEMENT NR. 4: WALLING AND PARTITIONING				
	CONCRETE WORK				
	Precast concrete grade '25' including hosting to position and bedding with cement and sand mortar (1:3)				
A	150 x 460mm Window cill weathered and throated once, not exceeding 2.00 metres long (in 15nr)	23	m	18,000.00	414,000.00
B	Ditto, over 2.00 metres long (in 43nr)	110	m	20,000.00	2,200,000.00
	Precast concrete grade '30' reinforced with high tensile steel 4nr. 16mm diameter main bars and 10mm stirrups at 150mm centers including hoisting to position and bedding with cement and sand mortar (1:3)				
C	230 x 150mm Lintel, not exceeding 2.00 metres long (in4nr)	0	m	500,000.00	-
	Blockwork				
	Solid concrete blocks to B.S. 2028 type 'A' bedded and jointed in cement mortar (1:4)				
D	230mm Thick wall	548	m^2	40,000.00	21,927,200.00
E	Ditto; rough raking cutting	0	m	10,000.00	-
F	Extra over for 230mm thick attached pier, 230mm wide projecting 600mm from the face of the wall (Provisional)	0	m	60,000.00	-
G	150mm Thick wall	1108	m^2	30,000.00	33,247,404.00
H	100mm Thick wall	393	m^2	28,000.00	11,012,400.00
					-
	To Collection			**TZS**	**68,801,004.00**

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	WALLING AND PARTITIONING (Cont'd)				
	Blockwork				
	Solid concrete blocks to B.S. 2028 type 'A' bedded and jointed in cement mortar (1:4)				
A	380mm Thick double wall (150mm thick and 230mm thick) including Lead lining; to Tanzania Radiation and Atomic Commision 'standards	47	m^2	80,000.00	3,760,000.00
	Concrete decorative screen blocks to Architect's design in cement and sand mortar (1:4) flush pointed as work proceeds				
B	230mm Wall	105	m^2	65,000.00	6,825,000.00
	BALUSTRADE (PROVISIONAL)				
	METAL WORK				
	Mild Steel				
C	75mm Diameter round hollow section handrail welded to vertical balusters PVC coated	48	m	28,000.00	1,344,000.00
D	50mm Diameter round hollow section bottom rail welded to vertical balusters primed and painted	48	m	25,000.00	1,200,000.00
E	50mm Diameter round hollow section balusters 900mm high with top end welded to handrail and bottom end embedded to concrete primed and painted	240	nr	28,000.00	6,720,000.00
F	Scribe welded joint and grid to smooth finish between baluster and core/intermediate rails	480	nr	3,000.00	1,440,000.00
	WALLING AND PARTITIONING (Cont'd)				
	BALUSTRADE (PROVISIONAL)				
	Sundries				
G	150mm x 150mm Hole in concrete 100mm deep including grouting with cement mortar (1:3)	240	nr	3,000.00	720,000.00
	To Collection			**TZS**	**22,009,000.00**
	COLLECTION				
	Page 2/4/1				68,801,004.00
	Page 2/4/2				22,009,000.00
	Page 2/4/3				
	ELEMENT NR.4: WALLING AND PARTITIONING CARRIED TO SUMMARY OF BILL NR. 2			**TZS**	**90,810,004.00**

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	ELEMENT NR. 5: ROOFING				
	ROOF COVERINGS				
	24 Gauge resin coated aluminium roofing sheets IT5 as supplied by Aluminium Africa or any other equal and approved manufacturer, fixing to steel Z-purlins with J-bolts as per manufacturer's instruction				
A	Roof coverings sloping not exceeding 45 degrees from horizontal	2079	m^2	40,000.00	83,160,000.00
B	Raking cutting	454	m	15,000.00	6,810,000.00
	24 Gauge resin coated roofing accessories as supplied by Aluminium Africa or any other equal and approved manufacturer, fixing to timber background with clout nails as per manufacturers instructions				
C	Ridge capping, 450mm girth	123	m	18,000.00	2,214,000.00
D	Hip capping, 450mm girth	114	m	18,000.00	2,052,000.00
E	Valley piece, 600mm girth	114	m	18,000.00	2,052,000.00
	Kryton water treatment membrane or any other equal and approved type laid on screeded bed (m.s) to manufacturer's specifications				
F	Roof covering to fall, cross falls or sloping not exceeding 45 degrees from the horizontal, laps 150mm at joint.	47	m^2	80,000.00	3,760,000.00
G	Turn up at abutment 175mm high	26	m	40,000.00	1,040,000.00
H	Working into outlet pipes, gullies and the like	1	nr	45,000.00	45,000.00
	Cement and sand (1:3) with approved water proofing additive trowelled to a smooth finish				
J	45mm (Average) screed to falls, crossfalls and slopes not exceeding 15 degrees from horizontal to receive water proofing membrane.	47	m^2	9,000.00	423,000.00
K	50 x 50mm Triangular angle fillet	26	m	4,000.00	104,000.00
	Wrought "Mpodo" softwood				
L	225 x 25mm Fascia board	291	m	25,000.00	7,275,000.00
M	225 x 25mm Barge board	11	m	25,000.00	275,000.00
	To Collection			**TZS**	**109,210,000.00**

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	ROOFING (Cont'd)				
	ROOF STRUCTURE				-
					-
	Unframed structural circular hollow section steel L-section members of roof trusses with weights not exceeding 5.00kg per linear metre with flattened welded connections ends including hoisting and placing to position and painted with two coats of high build red oxide primer and two coats of enamel paint (Provisional)				-
					-
	Mild steel grade 8.8 to BS 449-2:1969				-
					-
	The following are in 10nr roof truss spanning over 15.00 but not exceeding 18.00m (Truss type T1)				-
					-
A	70x50x6mm Thick Top chord	412	m	29,500.00	12,154,000.00
					-
B	70x50x6mm Thick Bottom chord	310	m	29,500.00	9,145,000.00
					-
C	70x50x6mm Thick Struts, ties	482	m	29,500.00	14,219,000.00
	(The end of 10nr roof truss spanning over 15.00 but not exceeding 18.00m)				-
	ROOF STRUCTURE				
	Unframed structural circular hollow section steel L-section members of roof trusses with weights not exceeding 5.00kg per linear metre with flattened welded connections ends including hoisting and placing to position and painted with two coats of high build red oxide primer and two coats of enamel paint (Provisional)				
	Mild steel grade 8.8 to BS 449-2:1969				
	The following are in 8nr roof truss spanning over 9.00 but not exceeding 12.00m (Truss type T3)				
D	70x50 x6mm Thick Top chord	185	m	29,500.00	5,457,500.00
					-
E	70x50x6 Thick Bottom chord	151	m	29,500.00	4,454,500.00
					-
F	70x50x6mm Thick Struts, ties	236	m	29,500.00	6,962,000.00
					-
	(The end of 8nr roof truss spanning over 9.00 but not exceeding 12.00m)				-
	The following are in 35nr roof truss spanning over 6.00 but not exceeding 9.00m (Truss type T2&T4)				-
					-
G	70x50 x6mm Thick Top chord	1257	m	29,500.00	37,081,500.00
					-
H	70x50x6 Thick Bottom chord	816	m	29,500.00	24,072,000.00
					-
J	70x50x6mm Thick Struts, ties	392	m	29,500.00	11,564,000.00
					-
	(The end of 35nr roof truss spanning over 6.00 but not exceeding 9.00m)				-
	To Collection			**TZS**	**125,109,500.00**

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	ROOFING (Cont'd)				
	ROOF STRUCTURE				
	Unframed structural circular hollow section steel L-section members of roof trusses with weights not exceeding 5.00kg per linear metre with flattened welded connections ends including hoisting and placing to position and painted with two coats of high build red oxide primer and two coats of enamel paint (Provisional)				
	Mild steel grade 8.8 to BS 449-2:1969				
	The following are in 6nr roof truss spanning over 3.00 but not exceeding 6.00m (Truss type T5)				
A	70 x50 x 6mm Thick Top chord	78	m	29,500.00	2,301,000.00
					-
B	70 x 50 x 6mm Thick Bottom chord	61	m	29,500.00	1,799,500.00
					-
C	70 x 50 x 6mm Thick Struts, ties	64	m	29,500.00	1,888,000.00
					-
	(The end of 6nr roof truss spanning over 3.00 but not exceeding 6.00m)				-
	ROOF STRUCTURE **Mild steel grade 43 to BS 449-2:1969 including pepare and apply two coats of high build red oxide primer and two coats of enamel paint (Provisional)**				
D	102x50x22x2.0mm "Z" Purlins	2826	m	22,500.00	63,585,000.00
					-
E	10mm Diameter sag bars/rods fixed at mid-span points of purlins	620	m	12,000.00	7,440,000.00
					-
F	130x100x8mm Thick plate, holed four times for 12mm diameter bolts (m.s); welded to top chord and bolted to purlins as per connection of purlins to truss detail in drawing no. T-OPD-ST-17	687	nr	18,000.00	12,366,000.00
					-
G	340x230x8mm Thick base plate, holed four times for 20mm diameter bolts as per VIEW A-A in drawing no. T-OPD-ST-17	97	nr	30,500.00	2,958,500.00
					-
H	340x230x8mm Thick bearing plate; ditto	97	nr	30,500.00	2,958,500.00
					-
J	340x120x8mm Thick stiffener plate welded to base plate and holed to receive to chord as per VIEW A-A in drawing no. T-OPD-ST-17	97	nr	28,000.00	2,716,000.00
					-
K	370x400x8mm Thick plate holed six times for 20mm diameter bolts (m.s) as per VIEW 1-1 in drawing no.T-OPD-ST-17	76	nr	35,000.00	2,660,000.00
					-
L	290x350x8mm Thick plate; ditto	76	nr	33,000.00	2,508,000.00
					-
M	410x351x8mm Thick plate; ditto	76	nr	36,000.00	2,736,000.00
					-
N	277x330x8mm Thick gusset plate welded to top chords as per VIEW 1-1 in drawing no. T-OPD-ST-17	76	nr	31,500.00	2,394,000.00
	To Collection			**TZS**	**108,310,500.00**

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	ROOFING (Cont'd)				
	Mild steel grade 43 to BS 449-2:1969 including pepare and apply two coats of high build red oxide primer and two coats of enamel paint (Provisional)				
A	340x310x8mm Thick gusset plate welded to top and bottom chords	97	nr	32,000.00	3,104,000.00
B	167x115x8mm Thick gusset plate; ditto	97	nr	16,500.00	1,600,500.00
C	255x205x8mm Thick gusset plate welded to bottom chords and struts	20	nr	26,500.00	530,000.00
D	205x225x8mm Thick gusset plate; ditto	20	nr	24,000.00	480,000.00
E	250x225x8mm Thick gusset plate; ditto	20	nr	26,500.00	530,000.00
F	265x205x8mm Thick gusset plate; ditto	56	nr	27,000.00	1,512,000.00
G	260x210x8mm Thick gusset plate; ditto	8	nr	27,500.00	220,000.00
H	215x230x8mm Thick gusset plate; ditto	8	nr	25,500.00	204,000.00
J	195x250x8mm Thick gusset plate; ditto	8	nr	21,000.00	168,000.00
K	215x228x8mm Thick gusset plate; ditto	8	nr	25,000.00	200,000.00
L	254x305x8mm Thick gusset plate; ditto	8	nr	28,600.00	228,800.00
	Mild steel grade 43 to BS 449-2:1969 including pepare and apply two coats of high build red oxide primer and two coats of enamel paint (Provisional)				
M	270x210x8mm Thick gusset plate welded to top chords and ties	76	nr	26,500.00	2,014,000.00
N	360x215x8mm Thick gusset plate; ditto	20	nr	30,500.00	610,000.00
P	350x225x8mm Thick gusset plate; ditto	20	nr	30,500.00	610,000.00
Q	265x200x8mm Thick gusset plate; ditto	20	nr	25,500.00	510,000.00
R	183x205x8mm Thick gusset plate; ditto	21	nr	20,000.00	420,000.00
S	414x195x8mm Thick gusset plate; ditto	21	nr	31,500.00	661,500.00
T	300x100x8mm Thick gusset plate; ditto	15	nr	26,000.00	390,000.00
U	285x100x8mm Thick gusset plate; ditto	8	nr	25,500.00	204,000.00
V	300x290x8mm Thick gusset plate; ditto	8	nr	28,000.00	224,000.00
W	325x215x8mm Thick gusset plate welded to ties	20	nr	29,500.00	590,000.00
Y	175x185x8mm Thick gusset plate; ditto	20	nr	18,000.00	360,000.00
	To Collection			**TZS**	**15,370,800.00**

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	ROOFING (Cont'd)				
	Mild steel grade 43 to BS 449-2:1969 including pepare and apply two coats of high build red oxide primer and two coats of enamel paint (Provisional)				
A	400x80x8mm Thick plate joining two top/bottom chords holed four times for 20mm diameter bolts	76	nr	28,000.00	2,128,000.00
	Mild steel grade 4.6				-
B	12mm Diameter black bolt, 100mm long complete with nuts and washer	2748	nr	5,000.00	13,740,000.00
C	20mm Diameter black bolt, 100mm long complete with nuts and washer	1672	nr	6,000.00	10,032,000.00
D	20mm Diameter anchor bolt, 300mm long complete with nuts and washer	388	nr	8,000.00	3,104,000.00
	Sundries				-
E	Make a hole through 8mm thick mild steel plate for 12mm diameter bolts	5496	nr	2,000.00	10,992,000.00
F	Make a hole through 8mm thick mild steel plate for 20mm diameter bolts	2060	nr	3,000.00	6,180,000.00
G	Triangular roof ventilator overall size 2000mm wide base x 470mm high fixed to steel roof structure (m.s) comprising of 150x25mm thick framing, 100x25mm thick treated softwood timber louvres and bat proof mesh (Provisional)	3	nr	1,500,000.00	4,500,000.00
H	Ditto; overall size 3000mm wide base x 701mm high	4	nr	1,800,000.00	7,200,000.00
J	Ditto; overall size 4713mm wide base x 1100mm high	1	nr	2,000,000.00	2,000,000.00
	ROOF DRAINAGE **Unplasticised PVC rainwater pipes to BS 4514**				
K	100mm Pipe fixed with and including standard holder bats plugged to blockwork or concrete work walls at 1.5metres general spacing	53	m	20,000.00	1,060,000.00
L	Extra for swan neck	8	nr	22,500.00	180,000.00
M	Extra for shoe	8	nr	22,500.00	180,000.00
	Unplasticised PVC rainwater gutter as supplied by "Nabaki Africa" or any other equal and approved complete with fittings and approved complete with fittings and fixing brackets as per supplier's instruction				
N	150mm Half round rainwater gutter	291	m	25,000.00	7,275,000.00
P	Extra for nozzle outlet	9	nr	18,000.00	162,000.00
Q	Extra for stopped end	2	nr	18,000.00	36,000.00
	"Fulbora" cast iron rain water outlet				
R	200mm Vertical spigot outlet with dome grating cast into concrete slab with caulked joint to P.V.C pipe	1	nr	45,000.00	45,000.00
	To Collection			**TZS**	**68,814,000.00**

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	COLLECTION				
	Page 2/5/1				109,210,000.00
	Page 2/5/2				125,109,500.00
	Page 2/5/3				108,310,500.00
	Page 2/5/4				15,370,800.00
	Page 2/5/5				68,814,000.00
	ELEMENT NR. 5: ROOFING TOTAL CARRIED TO SUMMARY OF BILL NR. 2				**426,814,800.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NR. 6: DOORS				
	WROT HARDWOOD DOORS				
A	45mm thick solid panelled door size 870 x 2045mm high comprising of 95mm wide stiles and top rails, 150mm wide middle rail and 100mm wide bottom rail forming two panels filled with 20 x 13mm toungued nd grooved 35mm thick vertical boarding housed to stiles and rails (D1)	26	nr	800,617.50	20,816,055.00
B	Ditto; size 870 x 2155mm high (D2)		nr	843,602.50	-
C	Ditto; 570 x 2045mm high (D3)	4	nr	504,542.50	2,018,170.00
D	Extra over, ditto, for opening size 150 x 350mm high left open for glazing (measured separately) (D3)	0	nr	23,625.00	-
E	Ditto; 570 x 2045mm hugh (D3A)	4	nr	524,542.50	2,098,170.00
F	Ditto; 570 x 2045mm hugh (D3B)	0	nr	524,542.50	-
G	45mm thick solid panelled door size 810 x 2130mm high compromising 140mm wide top rail, 150mm wide bottom rail, 95mm wide stiles and middle rail, forming three panels filled in with 20 x 13mm tounged and grooved 35mm thick vertical boarding housed to stiles and rails (D4)	0	nr	776,385.00	-
H	Ditto;sizw 940 x2130mm high (D5)	65	nr	872,235.00	56,695,275.00
J	Ditto; sizw 910 x 2070mm high (D5A)	0	nr	847,665.00	-
K	Ditto size 710 x 2070mm high (D6)	16	nr	661,865.00	10,589,840.00
L	25mm thick solid panelled door size 400 x 2085mm high comprising of 125mm wide stiles, bottom and top rails, forming a pane size 340 x 2025mm high filled with hardwood louvres housed to stiles (m.s) *(Provisional, Duct door)*	12	nr	375,300.00	4,503,600.00
	Wrot Hardwood				
M	100 x 45mm Frame with two labours	0	m	40,000.00	-
N	100 x 45mm Frame with three labours	708	m	40,000.00	28,320,000.00
P	100 x 45mm Frame with two labours	0	m	40,000.00	-
Q	100 x 45mm Mullion with two labours	110	m	40,000.00	4,400,000.00
R	45 x 15mm Architrave with pone labour	708	m	7,500.00	5,310,000.00
S	22 x12mm glazing beads with one labour	320	m	3,000.00	960,000.00
T	12 x12mm glazing beads, ditto	0	m	2,000.00	-
U	70 x 19mm slamming strip with threelabours	51	m	2,000.00	102,000.00
V	70 x19mm louvre blade with moulded edges, set and at 45 degree from horizontal and fixed in prepared grooves in door stiles (m.s) (in 108 nr)	78	m		-
	To Collection			**TZS**	**135,813,110.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	DOORS (Cont'd)				
	sawn hardwood				-
A	60 x 15mm parking piece/ grounding, plugged to block/ concrete wor	708	m	1,500.00	-
	GLAZING				-
	6mm thick OQ clear sheet glass fixed with and including 22 x 12mm hardwood beads to timber background (m.s)				-
B	panes	78	nr	80,000.00	6,240,000.00
	GLAZING				-
	6mm Thick OQ clear sheet glass fixed with and including 12 x 12mm hardwood beads to timber background (m.s)				
C	Panes not exceeding 0.10 square metres (in 8 nr) (*Observing window*)	1	m^2	80,000.00	80,000.00
	IRON MONGERIES				-
	supply and fix the following UNION ironmongeries as manufactured by Josiah Parkers and Sons Limited (England) or other and approved make to hardwood or the like with matching screws				-
D	100mm Heavy duty Brass butt hinges	169.5	pairs	15,000.00	2,542,500.00
E	100mm spring double action hinges (provisional)	15	pairs	60,000.00	900,000.00
F	Mortice lockset, three lever complete woth furniture and handle	99	nr	180,000.00	17,820,000.00
G	ditto; two lever with toilet indicator bolts	16	nr	150,000.00	2,400,000.00
H	150mm Brass barrel bolts	34	nr	40,000.00	1,360,000.00
J	Floor rubber door stopper	115	nr	20,000.00	2,300,000.00
	METAL WORK				
K	842 x 150 x 1.5mm thick aluminium kicker plate fixed with aluminium screws	70	nr	80,000.00	5,600,000.00
	METAL WORKS				
L	542 x 150 x 1.5mm thick aluminium kicker plate	0	nr	80,000.00	-
M	Ex-Ray Door (Provisional)	1	nr		7,000,000.00
	Sundries				
N	make slanting grooves in 125 x 25mm thick hardwood door stile for 70mmwide x 19mm thick hardwood louvre	216	nr	12,000.00	2,592,000.00
	To Collection			**TZS**	**48,834,500.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	COLLECTION				
	Page 2/6/1				135,813,110.00
	Page 2/6/2				48,834,500.00
	ELEMENT NR. 6: DOORS TOTAL CARRIED TO SUMMARY OF BILL NR. 2			**TZS**	**184,647,610.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NR. 7: WINDOWS				
	METALWORK				
	Anodized aluminium casement window frames, 1.5mm thick sections complete with 6mm thick ordinary quality clear sheet glass and including mosquito gauze and framing and all necessary ironmongeries				
A	2400 x 600mm high window comprising of four side sliding glass panel (W1 - top panel)	0	nr		
B	2400 x900mm high window, ditto (W1 - Bottom panes)	0	nr		
C	1500 x 600mm high window comprising of two side sliding glass panes (W2 - top panes)	0	nr		
D	1500 x 900mm high window comprising of two side sliding glass panes (W2 - bottom panes)	0	nr		
E	1200 x1650mm high window comprising of two fixed and two side sliding glass panes (W3A)	0	nr		
F	1000 X 900mm high window comprising of one pivoting glass panel (W3)	0	nr		
G	900 x 900mm high window ditto (W4)	0	nr		
H	900 x 900mm high window , ditto *(provisional at reception / registration and security guard)*	0	nr		
J	1500 x 1650mm high window comprising of two fixed glass panels *(provisional at general exam room, VTC and nurse call station)*	0	nr		
K	Window Size 1500 x 1900 mm overallW1	13	nr	855,000.00	11,115,000.00
L	Window Size 1800 x 1900 mm overallW2	27	nr	1,026,000.00	27,702,000.00
M	Window Size 2000 x 1900 mm overall W3	2	nr	1,140,000.00	2,280,000.00
N	Window Size 1200 x 1900 mm overall W4	5	nr	684,000.00	3,420,000.00
P	Window Size 1200 x 1200 mm overall W5	6	nr	432,000.00	2,592,000.00
Q	Window Size 1000 x 1200 mm overallW6	12	nr	360,000.00	4,320,000.00
R	Window Size 600 x 1200 mm overallW7	2	nr	216,000.00	432,000.00
	ELEMENT NR. 7: WINDOWS TOTAL CARRIED TO SUMMARY OF BILL NR. 2			**TZS**	**51,861,000.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NR. 8: FINISHINGS				
	INTERNAL FINISHINGS				
	INSITU FINISHINGS				
	Plastering in two coats including 12mm thick lime plaster coat to a smooth finish				
A	15mm To block work	1,395	m^2	9,000.00	12,552,282.90
					-
B	15mm To sloping soffits of stairs	32	m^2	9,000.00	288,000.00
					-
C	15mm To soffits of landing	15	m^2	9,000.00	135,000.00
					-
	TILES, SLAB AND BLOCK FINISHINGS				-
					-
	Non slip Porcelain floor tiles Ex-Spanish or any other equal and aproved type fixed to screeded bed (M.S) and pointing joints with grout				-
					-
D	500 x 500 x 9mm Thick to floors and pavings	718	m^2	65,000.00	46,670,000.00
					-
E	500 x 500 x 9mm Thick to landings	15	m^2	65,000.00	975,000.00
					-
F	Treads; 300mm wide with non slip caborandum slip	88	m	25,000.00	2,200,000.00
					-
G	Risers; 150mm high	95	m	20,000.00	1,900,000.00
					-
H	500 x 150mm, High tiles skirting	720	m	20,000.00	14,400,000.00
					-
	Glazed ceramic wall tiles Ex-Spanish or any other equal and approved type with cushion edges fixed to backings with adhesive and pointing joints with grout				-
					-
J	400 x 200 x 6mm Thick tiling to walls	726	m^2	65,000.00	47,190,000.00
	INTERNAL FINISHINGS				
	Glazed ceramic wall tiles Ex-Spanish or any other equal and approved type with cushion edges fixed to backings with adhesive and pointing joints with grout				
K	Cut tiles and fit around small pipes and the like	134	nr	5,000.00	670,000.00
					-
L	Tiles with one rounded edge (Provisional)	25	m	4,000.00	100,000.00
					-
					-
	To Collection			**TZS**	**127,080,282.90**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	FINISHINGS (Cont'd)				
	PLAIN SHEET FINISHINGS				-
	Suspended ceiling				-
A	12mm Gypsum board ceiling fixed to timber branderings (m.s) complete with sealing tape at joints	757	m^2	28,000.00	21,196,000.00
B	Extra over for access hatch size 600 x 600 mm	4	nr	100,000.00	400,000.00
C	82 x 82mm Flush gypsum cornice	2231	m	9,000.00	20,079,000.00
D	50 x 50mm Treated softwood brandering and the like	2725	m	5,000.00	13,626,000.00
	BEDS AND BACKINGS				-
	Cement and Sand (1:4) wood floated surface finish				-
E	12mm Thick backing to receive wall tiles	726	m^2	9,000.00	6,534,000.00
F	31mm Thick bed to receive floor tiles	733	m^2	9,000.00	6,597,000.00
G	12mm Thick backing to receive 150mm high skirting tiles	815	m	3,000.00	2,445,000.00
	EXTERNAL WORK				
	Rendering in two coats including 12mm thick lime plaster coat to a smooth finish				
H	15mm To walls	2133	m^2	9,000.00	19,195,020.00
J	15mm To isolated columns	10	m^2	9,000.00	90,000.00
K	15mm To sides and soffits of beam	43	m^2	9,000.00	387,000.00
L	15mm To soffits of slab	665	m^2	9,000.00	5,985,000.00
	TILES SLAB AND BLOCK FINISHINGS				-
	Non slip Porcelain floor tiles Ex-Spanish or any other equal and aproved type fixed to screeded bed (M.S) and pointing joints with grout				-
M	500 x 500 x 6mm Thick to floors and pavings	665	m^2	65,000.00	43,225,000.00
N	Ditto; to treads 300mm wide with non slip strip	11	m	25,000.00	275,000.00
P	Ditto; to risers 150mm high	21	m	20,000.00	420,000.00
Q	To skirting 150mm high	475	m	20,000.00	9,500,000.00
	PLAIN SHEET FINISHINGS				-
	Suspended ceiling				-
H	12mm Gypsum board ceiling fixed to timber branderings (m.s) complete with sealing tape at joints	0	m^2	28,000.00	-
J	Extra over for access hatch size 600 x 600 mm	0	nr	100,000.00	-
K	82 x 82mm Doric cornice as per lafarge gypsum board type	0	m	19,000.00	-
	To Collection			**TZS**	**149,954,020.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	FINISHINGS (Cont'd)				
	EXTERNAL WORK				
	PLAIN SHEET FINISHINGS				
	Suspended ceiling				
A	50 x 50mm Treated softwood brandering and the like	0	m	5,000.00	-
	BEDS AND BACKINGS				-
	Cement and Sand (1:4) wood floated surface finish				-
B	31mm Thick bed to receive floor tiles	665	m^2	9,000.00	5,985,000.00
C	12mm Thick backing to receive 300mm wide tread tiles	11	m	3,000.00	33,000.00
D	Ditto; to receive 150mm high riser tiles	21	m	3,000.00	63,000.00
E	Ditto; to receive 150mm high skirting tiles	475	m	3,000.00	1,425,000.00
	To Collection			**TZS**	**7,506,000.00**
	COLLECTION				
	Page 2/8/1				127,080,282.90
	Page 2/8/2				149,954,020.00
	Page 2/8/3				7,506,000.00
	ELEMENT NR. 8: FINISHINGS TOTAL CARRIED TO SUMMARY OF BILL NR. 2			**TZS**	**284,540,302.90**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NR: 9: PAINTING AND DECORATIONS				
	INTERNAL WORK				
	Prepare and apply one coat of acrylic primer, stucco and three full coats of acrylic paint by sadolin or similar to architect approval on:				
A	Plastered walls and the like	1394.7	m^2	8,000.00	11,157,584.80
	Prepare and apply one coat primer and two full coats of matt emulsion paint to architect approval on:				
B	Plastered sloping soffits of stairs	32	m^2	8,000.00	256,000.00
C	Plastered soffits of landing	15	m^2	8,000.00	120,000.00
D	Gypsum ceilings and the like	757	m^2	8,000.00	6,056,000.00
	Prepare and apply three coats of polyurethane varnish on wood surfaces				
E	Frames and the like over 100mm but not exceeding 200mm girth	510	m	3,000.00	1,528,650.00
F	Frames and the like over 200mm but not exceeding 300mm girth	151	m	3,000.00	453,000.00
G	general surfaces	400	m^2	8,000.00	3,198,451.20
	Prepare, prime and apply one undercoat and two finishing coats of gloss paint on metal surfaces				
H	Metal surfaces, over 100 but not exceeding 200mm girth	481	m	3,000.00	1,443,000.00
J	General surfaces	1	m^2	8,000.00	8,000.00
	EXTERNAL WORK				
	Prepare and apply one thinned coat and three full coats of weather guard paint to architect approval on:				
K	Rendered walls and the like	2133	m^2	8,000.00	17,062,240.00
L	Rendered isolated columns	10	m^2	8,000.00	80,000.00
	Prepare and apply one thinned coat and two full coats of emulsion paint on:				
M	Gypsum ceiling and the like	665	m^2	8,000.00	5,320,000.00
N	Rendered sides and soffits of beam	43	m^2	8,000.00	344,000.00
	Prepare and apply one thinned coat and two full coats of gloss paint on wood surface:				
P	General wood surface over 200 but not exceeding 300mm girth	302	m	3,000.00	906,000.00
	To Collection			**TZS**	**47,932,926.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	PAINTING AND DECORATIONS (cont'd)				
	INTERNAL WORK				
	Prepare, prime and apply one undercoat and two finishing coats of gloss paint on metal surfaces				
A	Metal surfaces, over 200 but not exceeding 300mm girth	4	m	3,000.00	12,000.00
B	General surfaces	1	m^2	8,000.00	8,000.00
	EXTERNAL WORK				
	Prepare and apply one thinned coat and three full coats of weather guard paint to architect approval on:				
C	Rendered walls and the like	1469	m^2	8,000.00	11,752,000.00
D	Rendered isolated columns	10	m^2	8,000.00	80,000.00
	Prepare and apply one thinned coat and two full coats of emulsion paint on:				
E	Gypsum ceiling and the like	0	m^2	8,000.00	-
F	Rendered sides and soffits of beam	43	m^2	8,000.00	344,000.00
G	Rendered soffits of slab	665	m^2	8,000.00	5,320,000.00
	Prepare and apply one thinned coat and two full coats of gloss paint on wood surface:				
H	General wood surface over 200 but not exceeding 300mm girth	302	m	3,000.00	906,000.00
	To Collection			**TZS**	**18,422,000.00**
	COLLECTION				
	Page 2/9/1				47,932,926.00
	Page 2/9/2				18,422,000.00
	ELEMENT NR. 9: PAINTING AND DECORATIONS TOTAL CARRIED TO SUMMARY OF BILL NR. 2				**66,354,926.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NR.14 - FOUL WATER DRAINAGE (PROVISIONAL)				
	EXCAVATION				
	Starting Levels				
	All excavations and plunking and strutting start at ground level				
	Excavating trenches to receive pipe not exceeding 150mm nominal size; grade and ram bottom to falls; part return fill and ram excavated material; spreading surplus spoil on site average 10 metres from excavation.				
	Not exceeding 1.5m total depth; average depth				
A	750mm	95	m	14,000.00	1,330,000.00
B	1000mm	64	m	15,200.00	972,800.00
	Disposal of water				
	Keeping the surface of the site and the excavations free of				
C	General water		Item	2,000,000.00	2,000,000.00
	Beds, benchings and coverings, imported sand				
	Beds and surrounds				
D	100mm Thick with 150mm top cover to 100mm and 150mm diameter pipes	159	m	60,000.00	9,540,000.00
	Pipe: UPVC pipe and fittings, BS 4660; solvert weld joints				
E	100mm Diameter	53	m	16,700.00	885,100.00
F	150mm Diameter	106	m	27,000.00	2,862,000.00
	MANHOLES (16NR.)				
	Excavating pits, plunking and strutting				
G	not exceeding 1.50m deep	78	m^3	5,500.00	429,000.00
	Bottoms of excavations				
H	Levelling, compacting	74	m^2	6,000.00	444,000.00
	Disposal of water; keeping the surface of the site and the excavations free of				
J	General water		Item	-	100,000.00
K	Extra over any kind of excavation for breaking up rock and the like	2	m^3	20,000.00	40,000.00
	To Collection			**TZS**	**18,602,900.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	FOUL WATER DRAINAGE (Contd)				
	Disposal of excavated material				
A	Removing from site	78	m^3	11,500.00	897,000.00
	In situ concrete; Grade 15				
B	Beds; laid on earth or hardcore; 150mm thick	37	m^2	15,000.00	555,000.00
C	700 x 700 x average 200mm benching; finished with 13mm cement and sand (1:2) trowelled smooth including forming 100mm half round straight main channel	3	nr	120,000.00	360,000.00
D	Ditto, including forming 100mm half round straight main channel and 100mm branch channels	6	nr	100,000.00	600,000.00
F	Ditto, including forming 150mm half round straight main channel and 150mm branch channels	7	nr	110,000.00	770,000.00
	Reinforced concrete grade '25' including vibrating around reinforcement				
F	100mm Thick top slab	27	m^2	28,500.00	769,500.00
	Reinforcement (Provisional) **High yield strength deformed type 2 steel bar reinforcement to BS4449:1969**				
G	10mm Diameter	1357	kg	2,800.00	3,799,600.00
	Precast concrete solid blocks to B.S 2028; cement mortar (1:3)				
H	Wall; 230mm thick	70	m^2	40,000.00	2,800,000.00
	Cement and sand (1:4) render with an approved water proofing additive in two coats steel trowelled to a smooth finish				
J	15mm To walls	13	m^2	9,000.00	117,000.00
	Sawn formwork to				
K	Horizontal soffits of suspended slab	26	m^2	18,000.00	468,000.00
L	Vertical edge of kerbs over 75 but not exceeding 150mm high	26	m	4,000.00	104,000.00
M	Boxing to form rebated opening size 450 x 450mm for manhole access cover	16	nr	12,000.00	192,000.00
	Gully traps				
N	Allow for construction of gully traps: complete with blockwork surround; size 150 x 150 mm	13	nr	450,000.00	5,850,000.00
	Cast iron manhole covers and frames to B.S. 497 coated with bituminous paint and bed frames in cement mortar(1:4) and set covers in thick grease				
P	450 x 450 x 96mm Heavy duty double seal flat cover and frame **(End of 16 Nr. manholes)**	16	nr	12,000.00	192,000.00
	To Collection			**TZS**	**17,474,100.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	FOUL WATER DRAINAGE (Contd)				
	The following are in 1 Nr. Septic tank (Provisional)				
	Excavation and earthwork				
A	Excavate pit not exceeding 1,50 metres deep commencing at ground level	34	m^3	5,500.00	187,000.00
B	Ditto over 1.50 but not exceeding 3.00 metres deep ditto	33	m^3	7,000.00	231,000.00
C	Grade bottoms of excavations to slope	17	m^2	6,000.00	102,000.00
D	Extra over any kind of excavation for breaking up rock and the like	3	m^3	20,000.00	60,000.00
E	Load up surplus excavated material and remove from site	34	m^3	11,500.00	391,000.00
F	Allow for keeping excavations free from water (except spring or running water) by pumping; baling or other means necessary		Item		1,000,000.00
G	Allow for the provision and subsequently removal of planking and strutting to uphold and maintain all faces of excavations		Item		1,000,000.00
	Concrete work				
	Plain concrete grade "20"				
H	120mm Bed	19	m^2	25,400.00	482,600.00
	Reinforced concrete grade "25" including vibrating around reinforcement				
J	125mm Horizontal suspended slab	16	m^2	35,525.00	568,400.00
	High yield strength deformed type 2 steel bar reinforcement to BS4449:1969				
K	12mm Diameter bars	300	kg	2,800.00	840,000.00
	Sawn formwork to				
L	Horizontal soffits of suspended slab	16	m^2	18,000.00	288,000.00
M	Vertical edge of slab over 75 but not exceeding 150mm high	17	m	4,000.00	68,000.00
N	Boxing to form rebated opening size 450 x 600mm to 100mm thick slab	4	nr	15,000.00	60,000.00
	Precast concrete grade "25"				
A	230mm Thick precast concrete baffle wall size 3230 x 2250mm overall, reinforced with and including fabric reinforcement type A252 weighing 3.95 kg per square metre, finished fair including hoisting and fixing to position	1	nr	9,000,000.00	9,000,000.00
	To Collection			**TZS**	**14,278,000.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	FOUL WATER DRAINAGE (Contd)				
	Solid concrete blocks to BS 2028 type "A" bedded and jointed in cement mortar (1:4)				
A	150mm Wall	3	nr	38,000.00	114,000.00
B	230mm Wall	30	nr	40,000.00	1,200,000.00
C	300mm Wall	20	nr	50,000.00	1,000,000.00
D	Form groove to 230mm blockwall to house 230mm thick precast concrete baffle wall and the like, 50mm deep and make good surrounds	10	m	100,000.00	1,000,000.00
E	Build end of the 100mm pipe into 230mm blockwall and make good rendering	2	nr	30,000.00	60,000.00
	Cement and sand (1:3) rendering with approved waterproofing additive in two coats steel trowelled to a smooth finish				
F	15mm To walls	80	m^2	9,000.00	720,000.00
G	30mm Cement and sand (1:4) flooring trowelled to a smooth finish	19	m^2	9,000.00	171,000.00
	Cast iron manhole cover and frame to BS 497 coated with bituminous paint and bed frame in cement mortar (1:3) and set cover in thick grease				
H	Light duty single seal manhole cover and frame, size 610 x 467mm	6	nr	120,000.00	720,000.00
J	100 x 100mm Cast iron spigot and socket tee	2	nr	60,000.00	120,000.00
	(End of 1Nr. Septic tank)				
	The following in 1 Nr. Soakaway pit, 3000mm internal diameter				
	Excavation and earthwork				
K	Excavate pit commencing at ground level and not exceeding 1.50 metres deep	34	m^3	5,500.00	187,000.00
L	Excavate pit commencing at ground level over 1.50 but not exceeding 3.00 metres deep	34	m^3	7,000.00	238,000.00
M	Earth backfilling, well rammed and consolidated around walls	16	m^3	9,500.00	152,000.00
N	Load up surplus excavated material and remove from site	22	m^3	11,500.00	253,000.00
P	Allow for keeping excavations free from general water		Item		1,000,000.00
Q	230mm Thick selected approved clean aggregate filling, 50-75mm diameter in soakaway pit base	26	m^2	11,000.00	286,000.00
R	Allow for the provision and subsequent removal of planking and strutting to uphold and maintain all faces of excavations		Item		1,000,000.00
	To Collection			**TZS**	**8,221,000.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	FOUL WATER DRAINAGE (Contd)				
	Concrete work **Reinforced concrete grade "20" including vibrating around reinforcement**				
A	100mm Horizontal suspended slab	8	m^2	22,000.00	176,000.00
	High yield strength deformed type 2 steel bar reinforcement to BS4449:1969				
B	12mm Diameter bars	220	kg	2,800.00	616,000.00
	Sawn formwork to				
C	Horizontal soffits of suspended slab	14	m^2	18,000.00	252,000.00
D	Curved cutting sawn formwork	20	m	6,000.00	120,000.00
E	Vertical edge of slab over 75 but not exceeding 150mm high, curved to 1980mm mean radius	24	m	4,000.00	96,000.00
F	Boxing to form rebated opening size 600 x 600mm to 100mm thick slab	2	nr	15,000.00	30,000.00
	Solid concrete blocks to BS 2028 type "A" bedded and jointed in cement mortar (1:4)				
G	230mm Wall curved to 1865mm mean radius	23	m^2	40,000.00	920,000.00
H	Build end of the 150mm pipe into 230mm blockwall and make good rendering	1	nr	106,000.00	106,000.00
	Cast iron manhole cover and frame to BS 497 coated with bituminous paint and bed frame in cement mortar (1:3) and set cover in thick grease				
J	600 x 600mm	1	nr	120,000.00	120,000.00
	(End of 1Nr. Soakaway Pit)				
K	**Testing** Allow for testing the whole of foul water drainage system to the Project manager's satisfaction		Item		5,000,000.00
	To Collection			**TZS**	**7,436,000.00**
	COLLECTION				
	Page 2/14/1				18,602,900.00
	Page 2/14/2				17,474,100.00
	Page 2/14/3				14,278,000.00
	Page 2/14/4				8,221,000.00
	Page 2/14/5				7,436,000.00
	ELEMENT NR.14: FOUL WATER DRAINAGE TOTAL CARRIED TO SUMMARY OF BILL NR.2			**TZS**	**66,012,000.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NR: 16 ELECTRICAL INSTALLATIONS				
	ELECTRICAL INSTALLATION (Cont'd)				
	GROUND FLOOR				
	LV Switchgear and Distribution Boards				
	Main LV Switchgear				
	Supply and install fully type tested Blockset LV Switchboards, Form 3B, IP 3X in conformity to IEC 61439-2 as "EATON MEM" or approved equal				
A	Main LV Panel with 400A incomer for TANESCO power supply, Isc(max)= 50kA, c/w 6 outgoing MCCBs, metering for current,voltage, kW, kVA, kWH, power factor correction, surge arresters and shunt trip relays to shut down power in the event of fire including delivery to site, earthing, testing and commissioning as Eaton Mem or approved equal	1	nr	28,500,000.00	28,500,000.00
	Sub LV Panel				-
B	Sub main LV Panel with busbars rated at In= 250A, Isc(max)= 50kA, outgoing MCCBs, c/w 12Nos outgoing MCBs, current and voltage meters	2	nr	18,000,000.00	36,000,000.00
C	Supply and install 400A Automatic Transfer switch with electrical and mechanical interlock c/w manual operation facility	0	nr	21,000,000.00	-
	Distribution Boards				-
	Supply and install 63A and 100A MCB Distribution Board fixed to background including connections to equipment and provision of plates,discs,and labels for identification as "Eaton MEM" or approved equal				-
D	6 Way TPN Distribution Board with 100A/30mA RCCB incomer	1	nr	1,275,000.00	1,275,000.00
E	6 Way TPN Distribution Board with 63A/30mA RCCB incomer	5	nr	1,125,000.00	5,625,000.00
	Surge Protection Devices				
F	Supply and install enclosed surge protection kit for TPN boards fixed to background including supports and connections to distribution boards as Eaton Mem	1	Item	1,950,000.00	1,950,000.00
	To Collection			**TZS**	**73,350,000.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELECTRICAL INSTALLATION (Cont'd)				
	LV Cables				
	Supply,install and connect to work cables, 600/1000V ,XLPE insulated, PVC sheathed copper stranded conductors to BS 5467,clipped direct to backgrounds including cleats				
	Single core armoured				
A	120 sq mm (Provisional)	75	m	64,400.00	4,830,000.00
B	70 sq mm (Provisional)	75	m	36,400.00	2,730,000.00
C	16 sq mm	485	m	7,000.00	3,395,000.00
D	6 sq mm	15	m	8,000.00	120,000.00
	Four core armoured				
E	95sq.mm (Provisional)	180	m	182,000.00	32,760,000.00
F	35sq.mm (Provisional)	110	m	74,200.00	8,162,000.00
G	25sq.mm	22	m	61,600.00	1,355,200.00
	Light Fittings **Supply and install the following luminaires fixed to background c/w tubes/lamps including fixings and accessories as delta light/Thorn or approved equal**				
H	1x36W,1200mm decorative fluorescent fitting	97	nr	90,000.00	8,730,000.00
J	Decorative straight battern holder c/w 1x11W as type C	47	nr	112,500.00	5,287,500.00
K	Decorative straight battern holder c/w 1x18W as type E	8	nr	135,000.00	1,080,000.00
L	Emergency EXIT light fitting, 1x8W	11	nr	150,000.00	1,650,000.00
M	Decorative straight battern holder c/w 1x18W as type D	6	nr	135,000.00	810,000.00
N	IP65 , bulkhead fitting c/w 1x 70W for external use	24	nr	675,000.00	16,200,000.00
	Wiring Accessories **Supply and install all flush accessories complete with mounting boxes in walls or trunking as Hager or approved equal.**				
P	13A Switched socket outlet -twin	74	nr	27,500.00	2,035,000.00
Q	Ditto but weather proof	1	nr	54,000.00	54,000.00
R	13A Switched socket outlet -single	3	nr	27,000.00	81,000.00
S	10A 1 way 1 gang switch	60	nr	7,500.00	450,000.00
T	10A 1 way 2 gang switch	4	nr	9,000.00	36,000.00
U	10A 2 way 2 gang switch	10	nr	18,500.00	185,000.00
V	10A 2 way 1 gang switch	32	nr	13,500.00	432,000.00
P	20A DP switch for AC	45	nr	33,000.00	1,485,000.00
	To Collection			**TZS**	**91,867,700.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELECTRICAL INSTALLATION (Cont'd)				
	Wiring Accessories				
	Supply and install all flush accessories complete with mounting boxes in walls or trunking as Hager or approved equal.				
A	20A DP switch for theatre and xray rooms	4	nr	33,000.00	132,000.00
B	20A DP switch for water pump	2	nr	33,000.00	66,000.00
C	TV coaxial socket outlet	6	nr	36,000.00	216,000.00
D	25A contactor	1	nr	75,000.00	75,000.00
E	Photocell complete with kit	1	nr	330,000.00	330,000.00
	Electrical Wiring				
	Supply and install the following (all cable shall be as per East African cables or approved equal)				
F	Power points wired using 2.5 sq.mm single core cable drawn in 20mm diameter PVC-U conduit concealed under plaster or in ceiling void including wiring ;conduit and conduit accessories	78	nr	42,000.00	3,276,000.00
G	Lighting points wired using 1.5 sq.mm single core cable drawn in 20mm diameter PVC conduit concealed under plaster or in slab including wiring ;conduit and conduit accessories	193	nr	28,500.00	5,500,500.00
H	AC indoor points wired using 2.5 sq.mm single core cable drawn in 20mm diameter PVC conduit including wiring ;conduit and conduit accessories	45	nr	42,000.00	1,890,000.00
J	Theatre and xray points wired using 2.5 sq.mm single core cable drawn in 20mm diameter PVC conduit including wiring ;conduit and conduit accessories	4	nr	42,000.00	168,000.00
	PVC Duct				
	Supply and install the following HDPE pipes including accessories buried underground for incoming Lv cable and Data/Voice cables				
K	150mm Diameter for incoming Lv cables	120	m	18,000.00	2,160,000.00
	Voice and Data				
L	20mm diameter conduiting for VD points concealed throughout inclusive of all backboxes to facilitate installation of VD accessories by others	81	nr	4,500.00	364,500.00
	Fire Alarm Installations				
M	20mm diameter conduiting for fire alarm points concealed throughout inclusive of all backboxes to facilitate installation of devices by others	92	nr	4,500.00	414,000.00
	To Collection			**TZS**	**14,592,000.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	MAIN POWER SUPPLY				
	Standby Generator				
	Supply and install standby diesel generator set with 75dB at 1m acoustic housing including fixing to base,all supports and fixings and all necessary connections to equipment				
A	315kVA,3phase ,400V,4wire,50Hz, packaged diesel generating set suitable for indoor use complete with radio and television suppressors,daily service fuel tank and associated piping,exhaust pipe and primary silencer,control panel,mains failure relay,starting battery with charger,all internal wiring,interconnections,earthing and labels including delivery to site,testing and commissioning as Atlas Copco or approved equivalent (Provisional)	0	nr		-
	BulkFuel Reserve				
B	supplyand install 4500L pre fabricated bulk fuel reserve tank complete with all piping valves, pumps, all necessary accessories and connections to the generator set	-	nr		-
	Transformer				
C	315kVA,11000/400V, Dyn 11, 50Hz, Oil filled transformer in free breathing ventilated steel tank, complete with lifting lugs, mounting skids,provision for wheels, off load tap changers, winding temperature indicators, fluid temperature indicators etc including fixing to background, testing and commissioning (Provision)	1	nr	32,489,000.00	32,489,000.00
	HV and LV Cables				
	11kV XLPE insulated,steel wire armoured,PVC sheathed,cu cables laid in cable trench including supports,terminations, manholes, PVC pipes and all necessary accessories				
	Three core armoured				
D	185 sq.mm (Provisional)	100	m	476,000.00	47,600,000.00
	Earthing and Lightining Protection				
E	Allow a provisional sum for completion of the structural lightning protection system	1	Item	6,600,000.00	6,600,000.00
F	Allow for Earthing of the entire electrical installation as specified	1	Item	11,400,000.00	11,400,000.00
	Testing				
G	Allow for testing and commissioning of the entire installations to the requirement of TANESCO	1	Item	6,000,000.00	6,000,000.00
	AS Built Drawings				
H	Allow for provision of 3sets of as built drawings and operation and manuals on completion of the works	1	Item	1,800,000.00	1,800,000.00
	To Collection			**TZS**	**105,889,000.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Builders Work				
A	Allow for all necessary cutting out and making good after the concealed,burried underground electrical system installations	1	Item	15,000,000.00	15,000,000.00
	Fire Alarm Installations				
B	20mm diameter conduiting for fire alarm and data points concealed throughout inclusive of all backboxes to facilitate installation of devices by others	0	m	45,000.00	-
	Testing				
C	Allow for testing and commissioning of the whole of electrical systems as per respective standards	1	Item	5,000,000.00	5,000,000.00
	FIRE DETECTION &ALARM SYSTEMS				
D	Conventional fire control panel,eurofire 3loops, 6 zones fire panel c/w batteries{72 hour standby} as FEUR12 TYPE.	0	nr		-
B	Smoke detectors as AP6-FT8 Conventional complete with Sounder base	-	nr		-
E	Heat detectors as AP6-FT8 Conventional complete with Sounder base	-	nr		-
F	Breakglass Conventional, complete with surface -box as FML-200R	-	nr		-
G	Firebell/Conventional sounder, 6inch as ABB624	-	nr		-
H	Fire resistant cable 1.5sqmm,twin with earth wire	-	m		-
	To Collection			**TZS**	**20,000,000.00**
	COLLECTION				
	Page 2/16/1				73,350,000.00
	Page 2/16/2				91,867,700.00
	Page 2/16/3				14,592,000.00
	Page 2/16/4				105,889,000.00
	Page 2/16/5				20,000,000.00
	ELEMENT NR. 16 - ELECTRICAL INSTALLATIONS TOTAL CARRIED TO SUMMARY OF BILL NR. 2			**TZS**	**305,698,700.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NR. 17: PLUMBING AND ENGINEERING INSTALLATIONS				
	SANITARY APPLIANCES				
	GROUND FLOOR **Supply and fix the following sanitary appliance as Manufactured by Armitage Shanks or any other equal and approved Manufacturer including all connections and fixings to floor or on wall where necessary.**				
A	745 x 970 x 455mm "Magnia" white vitreous china low level WC suite (S3510-149701A) comprising of 9 litres capacity cistern (S3900-17730AA) for side supply internal Fleeflo plastic syphon fitting and 12mm Microvalve HP\LP side supply ballvalve, internal overflow, plastic flush bend, simpla inlet connector and supports, chrome plated lever (S4055-68940B1), Gemini seat and cover (S9102-75508FR), domex screws and S-trap	11	nr	750,000.00	8,250,000.00
B	Twyford white vitreous china DOC.M Value Pack disabled WC pan Cat No. PK8154WH comprising of WC bowl with horizontal outlet, hand rinse non overflow, no chainstay, DOC.M support rails (4No), DOC.M hinged support rail and toilet holder, wall hangers (pair), grid waste, DOC.M Value cistern and fittings, DOC.M seat ring, stainless steel hinge	2	nr	150,000.00	300,000.00 -
C	Vitreous china Twyford sahara squatting WC with integral treads, 9 litres capacity cistern with cover, BSS high pressure ball valve, plastic syphone fittings, side supply and overflow set, plastic flush pipe and mild steel brackets trap outlets	10	nr	600,000.00	6,000,000.00
D	White vitreous china TEMPO 50 E1630 carina countertop washbasin,single central taphole,S7300 Millenia; 0.5" monoblock basin mixer with non return valves and 1.25"pop up waste,1.25" plastic bottle trap with 75mm seal.	51	nr	300,000.00	15,300,000.00
E	Toilet flexible hand sprays	23	nr	120,000.00	2,760,000.00
F	Toilet roll holder S5095 (75490BH) screwed to tiled wall chrome plated finish with thief proof holder	23	nr	65,000.00	1,495,000.00
	To Collection			**TZS**	**34,105,000.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	SANITARY APPLIANCES				
	GROUND FLOOR **Supply and fix the following sanitary appliance as Manufactured by Armitage Shanks or any other equal and approved Manufacturer including all connections and fixings to floor or on wall where necessary.**				
A	Clean out (floor trap) including rodding eyes, necessary fittings and accessories,	13	nr	45,000.00	585,000.00
B	Hand drier 0302004 guardian push button operation plastic cassete unit, snap in mechanism high output, size 275 x 290 x 185mm.	15	nr	180,000.00	2,700,000.00
C	Range of three "Sanura" white vitreous china wall urinal CAT. No S 6100 (261129E), top inlet spreader (S6285 - 74344A1), concealed steel hangers (S8850 - 90568N0), 40mm plastic domed waste (S8915 - 70238Q4), 40mm plastic bottle trap with 75mm seal, (S6120-260600) division with hanger and screw and 9 litres automatic flushing cistern	6	nr	1,200,000.00	7,200,000.00
D	Mirror, special quality plate glass size 800 x 750 x 6mm thick with alkali resistant coating one side, fixing with domex screws to background requiring plugging	51	nr	90,000.00	4,590,000.00
E	W612 Dilution Recovery Trap with W162 Line coupler and w3992 Reducing coupler	3	nr	250,000.00	750,000.00
F	420x350mmx200 DSM sinks of 316 grade stainless steel or equivalent for laboratory use,supplied with Standard waste and overflow kit and plug assembly	5	nr	1,200,000.00	6,000,000.00
	SANITARY APPLIANCES				
	FIRST FLOOR **Supply and fix the following sanitary appliance as Manufactured by Armitage Shanks or any other equal and approved Manufacturer including all connections and fixings to floor or on wall where necessary.**				
G	745 x 970 x 455mm "Magnia" white vitreous china low level WC suite (S3510-149701A) comprising of 9 litres capacity cistern (S3900-17730AA) for side supply internal Fleeflo plastic syphon fitting and 12mm Microvalve HP\LP side supply ballvalve, internal overflow, plastic flush bend, simpla inlet connector and supports, chrome plated lever (S4055-68940B1), Gemini seat and cover (S9102-75508FR), domex screws and S-trap	0	nr		-
	To Collection			**TZS**	**21,825,000.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A	Twyford white vitreous china DOC.M Value Pack disabled WC pan Cat No. PK8154WH comprising of WC bowl with horizontal outlet, hand rinse non overflow, no chainstay, DOC.M support rails (4No), DOC.M hinged support rail and toilet holder, wall hangers (pair), grid waste, DOC.M Value cistern and fittings, DOC.M seat ring, stainless steel hinge	0	nr		- -
B	Vitreous china Twyford sahara squatting WC with integral treads, 9 litres capacity cistern with cover, BSS high pressure ball valve, plastic syphone fittings, side supply and overflow set, plastic flush pipe and mild steel brackets trap outlets	0	nr		- -
C	White vitreous china TEMPO 50 E1630 carina countertop washbasin,single central taphole,S7300 Millenia; 0.5" monoblock basin mixer with non return valves and 1.25"pop up waste,1.25" plastic bottle trap with 75mm seal.	0	nr		- -
D	Toilet flexible hand sprays	0	nr		- -
E	Toilet roll holder S5095 (75490BH) screwed to tiled wall chrome plated finish with thief proof holder	0	nr		-
	SANITARY APPLIANCES				
	FIRST FLOOR **Supply and fix the following sanitary appliance as Manufactured by Armitage Shanks or any other equal and approved Manufacturer including all connections and fixings to floor or on wall where necessary.**				
F	Clean out (floor trap) including rodding eyes, necessary fittings and accessories,	0	nr		- -
G	Hand drier 0302004 guardian push button operation plastic cassete unit, snap in mechanism high output, size 275 x 290 x 185mm.	0	nr		- -
H	Range of three "Sanura" white vitreous china wall urinal CAT. No S 6100 (261129E), top inlet spreader (S6285 - 74344A1), concealed steel hangers (S8850 - 90568N0), 40mm plastic domed waste (S8915 - 70238Q4), 40mm plastic bottle trap with 75mm seal, (S6120-260600) division with hanger and screw and 9 litres automatic flushing cistern	0	nr		- -
J	Mirror, special quality plate glass size 800 x 750 x 6mm thick with alkali resistant coating one side, fixing with domex screws to background requiring plugging	0	nr		-
K	Sink, stainless steel combined single bowl, single drainer CAT No. DT 180C, complete with 12mm chromium plated easy clean capstan head pillar tap, chain and plastic plug, 38mm chromium plated waste fitting and fixed with safety brackets	0	nr		-
L	W612 Dilution Recovery Trap with W162 Line coupler and w3992 Reducing coupler	0	nr		-
M	420x350mmx200 DSM sinks of 316 grade stainless steel or equivalent for laboratory use,supplied with Standard waste and overflow kit and plug assembly	0	nr		-
	To Collection			**TZS**	-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	FOUL WATER SYSTEM				
	GROUND FLOOR				
	Soil and Vent pipe				
	uPVC pipe work installed, jointed and tested complete, to BS 8301, BS 4541, BS 5255 , BS 4660 and BS 5481 as applicable including supports, pipe fittings, bends, Accessories, hangers, fixing at high level,insulation of the Exposed Pipes over the ceiling,Concrete encasement, excavation and earthwork, backfilling, cleanouts and other related builder's work, roding eyes, all as specified And shown on drawings				
A	150mm Diameter pipe	29	m	27,000.00	783,000.00
B	100mm Diameter pipe in ducts and concrete bed	64	m	16,700.00	1,068,800.00
C	Extra over for Y-Junction	33	nr	20,000.00	660,000.00
D	75mm Diameter pipe	53	m	15,000.00	795,000.00
	Waste and overflow pipes				
	uPVC pipe work installed, jointed and tested complete, to BS 8301, BS 4541, BS 5255 , BS 4660 and BS 5481 as applicable including supports, pipe fittings, bends, Accessories, hangers, fixing at high level,insulation of the Exposed Pipes over the ceiling,Concrete encasement, excavation and earthwork, backfilling, cleanouts and other related builder's work, roding eyes, all as specified And shown on drawings				
E	75mm Diameter pipe	47	m	15,000.00	705,000.00
F	50mm Diameter pipe	52	m	14,500.00	754,000.00
G	Extra over for Y-Junction	30	nr	20,000.00	600,000.00
	FOUL WATER SYSTEM				
	Waste and overflow pipes				
	uPVC pipe work installed, jointed and tested complete, to BS 8301, BS 4541, BS 5255 , BS 4660 and BS 5481 as applicable including supports, pipe fittings, bends, Accessories, hangers, fixing at high level,insulation of the Exposed Pipes over the ceiling,Concrete encasement, excavation and earthwork, backfilling, cleanouts and other related builder's work, roding eyes, all as specified And shown on drawings				
A	Extra over 50mm diameter pipe for Bend	52	nr	14,500.00	754,000.00
B	Extra over 50mm diameter pipe for Reducer 50/40	50	nr	45,302.00	2,265,100.00
C	40mm Diameter pipe embedded in concrete wall	15	m	12,500.00	187,500.00
D	Extra over for Y-Junction	51	nr	20,000.00	1,020,000.00
E	32mm Diameter Pipe embedded in concrete wall	10	m	11,500.00	115,000.00
F	Extra over for Y-Junction	5	nr	20,000.00	100,000.00
	To Collection			**TZS**	**9,807,400.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	FOUL WATER SYSTEM				
	FIRST FLOOR				
	Soil and Vent pipe				
	uPVC pipe work installed, jointed and tested complete, to BS 8301, BS 4541, BS 5255 , BS 4660 and BS 5481 as applicable including supports, pipe fittings, bends, Accessories, hangers, fixing at high level,insulation of the Exposed Pipes over the ceiling,Concrete encasement, excavation and earthwork, backfilling, cleanouts and other related builder's work, roding eyes, all as specified And shown on drawings				
A	150mm Diameter pipe	0	m		-
B	100mm Diameter pipe in ducts and concrete bed	0	m		-
C	Extra over for Y-Junction	0	nr		-
D	75mm Diameter pipe	0	m		-
	Waste and overflow pipes				-
	uPVC pipe work installed, jointed and tested complete, to BS 8301, BS 4541, BS 5255 , BS 4660 and BS 5481 as applicable including supports, pipe fittings, bends, Accessories, hangers, fixing at high level,insulation of the Exposed Pipes over the ceiling,Concrete encasement, excavation and earthwork, backfilling, cleanouts and other related builder's work, roding eyes, all as specified And shown on drawings				
E	75mm Diameter pipe	0	m		-
F	50mm Diameter pipe	0	m		-
G	Extra over for Y-Junction	0	nr		-
	FOUL WATER SYSTEM				
	Waste and overflow pipes				
	uPVC pipe work installed, jointed and tested complete, to BS 8301, BS 4541, BS 5255 , BS 4660 and BS 5481 as applicable including supports, pipe fittings, bends, Accessories, hangers, fixing at high level,insulation of the Exposed Pipes over the ceiling,Concrete encasement, excavation and earthwork, backfilling, cleanouts and other related builder's work, roding eyes, all as specified And shown on drawings				
H	Extra over 50mm diameter pipe for Bend	0	nr		-
J	Extra over 50mm diameter pipe for Reducer 50/40	0	nr		-
K	40mm Diameter pipe embedded in concrete wall	0	m		-
L	Extra over for Y-Junction	0	nr		-
M	32mm Diameter Pipe embedded in concrete wall	0	m		-
N	Extra over for Y-Junction	0	nr		-
	To Collection			**TZS**	-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	COLD AND HOT WATER INSTALLATION				
	GROUND FLOOR				
	COLD WATER INSTALLATION				
	Pressure pipe work, installed, jointed and tested complete as per BS standards with pipe fittings, bends, accessories, supports, hangers using clamps with rubber inlay, threaded rods, galvanized steel channels, sleeves, pipe marking, expansion joints, including excavations, earthworks, backfill, concrete encasement, and other related builder's work, all as specified and shown on drawings,				
A	32mm Diameter pipe	68	m	13,752.00	935,136.00
B	Extra over 32mm diameter pipe for Bend 90 degrees	23	nr	15,000.00	345,000.00
C	Extra over ditto for Coupling	23	nr	40,000.00	920,000.00
D	Extra over ditto for Strainer	2	nr	20,000.00	40,000.00
E	25mm Diameter pipe	145	m	9,500.00	1,377,500.00
F	Extra over for Reducer tee 25/20	48	nr	6,700.00	321,600.00
G	Extra over for Reducer tee 25/15	48	nr	6,000.00	288,000.00
H	Extra over for Unequal Tee	48	nr	32,000.00	1,536,000.00
J	20mm Diameter pipe plugged and concealed on concrette walls	64	m	19,000.00	1,216,000.00
K	Extra over for Equal tee	48	nr	19,000.00	912,000.00
L	Extra over for Elbow	49	nr	8,500.00	416,500.00
M	Extra over for Reducer 20/15	92	nr	6,000.00	552,000.00
N	Extra over for Nipple	6	nr	30,000.00	180,000.00
	COLD WATER INSTALLATION				
	Pressure pipe work, installed, jointed and tested complete as per BS standards with pipe fittings, bends, accessories, supports, hangers using clamps with rubber inlay, threaded rods, galvanized steel channels, sleeves, pipe marking, expansion joints, including excavations, earthworks, backfill, concrete encasement, and other related builder's work, all as specified and shown on drawings,				
P	15mm Diameter pipe plugged and concealed on concrette walls	45	m	9,000.00	405,000.00
Q	Extra over for Equal tee	48	nr	16,500.00	792,000.00
R	Extra over for Elbow	94	nr	6,500.00	611,000.00
S	15mm Heavy duty flexible pipe tail; 300mm long and connection to fitting and supply	100	nr	20,000.00	2,000,000.00
	To Collection			**TZS**	**12,847,736.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	COLD WATER INSTALLATION				
	Ancilliaries				
	Draw-off taps, stop valve to BS 1010				
A	32mm Diameter brass stop valve with screwed connection to HDPE pipe	10	nr	39,900.00	399,000.00
B	32mm Diameter brass stop cock with screwed connection to HDPE pipe	2	nr	39,500.00	79,000.00
C	25mm Diameter brass stop valve with screwed connection to HDPE pipe	6	nr	35,400.00	212,400.00
D	20mm Diameter brass stop valve with screwed connection to HDPE pipe	22	nr	32,300.00	710,600.00
E	15mm Diameter brass cock with screwed connection to HDPE pipe	59	nr	30,200.00	1,781,800.00
	COLD AND HOT WATER INSTALLATION				
	FIRST FLOOR				
	COLD WATER INSTALLATION				
	Pressure pipe work, installed, jointed and tested complete as per BS standards with pipe fittings, bends, accessories, supports, hangers using clamps with rubber inlay, threaded rods, galvanized steel channels, sleeves, pipe marking, expansion joints, including excavations, earthworks, backfill, concrete encasement, and other related builder's work, all as specified and shown on drawings,				
A	32mm Diameter pipe	0	m		-
B	Extra over 32mm diameter pipe for Bend 90 degrees	0	nr		-
C	Extra over ditto for Coupling	0	nr		-
D	Extra over ditto for Strainer	0	nr		-
E	25mm Diameter pipe	0	m		-
F	Extra over for Reducer tee 25/20	0	nr		-
G	Extra over for Reducer tee 25/15	0	nr		-
H	Extra over for Unequal Tee	0	nr		-
J	20mm Diameter pipe plugged and concealed on concrette walls	0	m		-
K	Extra over for Equal tee	0	nr		-
L	Extra over for Elbow	0	nr		-
M	Extra over for Reducer 20/15	0	nr		-
N	Extra over for Nipple	0	nr		-
	To Collection			**TZS**	**3,182,800.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	COLD WATER INSTALLATION				
	Pressure pipe work, installed, jointed and tested complete as per BS standards with pipe fittings, bends, accessories, supports, hangers using clamps with rubber inlay, threaded rods, galvanized steel channels, sleeves, pipe marking, expansion joints, including excavations, earthworks, backfill, concrete encasement, and other related builder's work, all as specified and shown on drawings,				
A	15mm Diameter pipe plugged and concealed on concrette walls	0	m		-
B	Extra over for Equal tee	0	nr		-
C	Extra over for Elbow	0	nr		-
D	15mm Heavy duty flexible pipe tail; 300mm long and connection to fitting and supply	0	nr		-
	Equipments				-
E	Supply and install 5,000 litres capacity elevated water Tanks including ,pipe work, fittings, brackets, tapping,supports,level meter and over flow pipe work as shown on drawing and as specified	0	nr		-
F	Booster pumps set consisting one duty & one Standby including gate valves, PRV, check valve, NRV, isolators, level sensors, strainers, flexible connectors, control panel, all accessories, fittings, testing and commissioning jointly with the supplier, etc., pump duty:Discharge : 2 m3/hr Total manometric head : 15m. Speed : 2900 RPM,motor power: 0.75 KW 1 X380 V & 50 HZ. from approved manufacturer	0	nr		-
	COLD WATER INSTALLATION				
	Ancilliaries				
	Draw-off taps, stop valve to BS 1010				
G	32mm Diameter brass stop valve with screwed connection to HDPE pipe	0	nr		-
H	32mm Diameter brass stop cock with screwed connection to HDPE pipe	0	nr		-
J	25mm Diameter brass stop valve with screwed connection to HDPE pipe	0	nr		-
K	20mm Diameter brass stop valve with screwed connection to HDPE pipe	0	nr		-
L	15mm Diameter brass cock with screwed connection to HDPE pipe	0	nr		-
	To Collection			**TZS**	-

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	RAINWATER DRAINAGE				-
					-
	uPVC pipe work for rain water installed, jointed and tested complete, to BS 8301, BS 4541, BS 5255 , BS 4660 and BS 5481 as applicable including supports, pipe fittings, bends, Accessories, hangers, fixing at high level,insulation of the Exposed Pipes over the ceiling,Concrete encasement, Earthwork, backfilling,cleanouts,roding eyes, all as specified And shown on drawings				-
					-
A	100mm Diameter down Pipe	37	m	25,000.00	925,000.00
					-
B	Extra over for Bend	6	nr	20,000.00	120,000.00
					-
C	75mm Daimeter uPVC pipe	4	m	19,500.00	78,000.00
					-
D	Upvc/Bronze Fullbore	6	nr	45,000.00	270,000.00
	FIRE FIGHTING INSTALLATIONS				
	GROUND FLOOR				
	Supply and install the following items complete with associated fittings,supports and builders works as per specifications and drawings.				
	Portable fire extinguishers to BS5306:3 or BS EN 3 of Chubb Brand or Approved Equivalent.				
E	ABC Dry Powder , 6Kgs	5	nr	450,000.00	2,250,000.00
					-
	Fire Hose Reel System				-
					-
	Supply and install the following items complete with associated fittings ,supports and builder's work				-
					-
	Pipework & Fittings to BS1387				-
					-
F	50mm Diameter, galvanised Carbon Steel Pipe	33	m	45,258.00	1,493,514.00
					-
G	25mm Diameter, galvanised Carbon Steel Pipe	12	m	19,625.00	235,500.00
					-
	Valves to BS Standards				-
					-
H	50mm Diameter, Gate Valve	2	nr	160,000.00	320,000.00
					-
J	50mm Diameter, check Valve	1	nr	800,000.00	800,000.00
					-
K	50mm Diameter, Automatic Air Release Valve	2	nr	300,000.00	600,000.00
					-
L	25mm Diameter, Gate Valve	2	nr	76,000.00	152,000.00
	To Collection			**TZS**	**7,244,014.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	FIRE FIGHTING INSTALLATIONS				
	Mechanical Engineering Installation				
	Fire Hose Reel to BS 3169				
A	Automatic hose reel, swinging type, Angus brand or other approved equivalent, with 20mm diameter rubber hose, 30m long provided with manual stop.	2	nr	575,000.00	1,150,000.00
					-
	Fire Hose reel pumps				-
B	Supply and install a set of fire hose reel pump, duty and stand by each of 1.2l/s flow capacity at 4bar and 0.65kW with all accessories for fixing.	2	nr	8,000,000.00	16,000,000.00
					-
	Fire Signage				-
C	Supply and fix Photoluminiscent Fire Signage for Portable Fire Extinguishers and Fire Hose Reels as specified and indicated on the drawings.	16	nr	120,000.00	1,920,000.00
	FIRE FIGHTING INSTALLATIONS				
	FIRST FLOOR				
	Supply and install the following items complete with associated fittings,supports and builders works as per specifications and drawings.				
	Portable fire extinguishers to BS5306:3 or BS EN 3 of Chubb Brand or Approved Equivalent.				
D	ABC Dry Powder , 6Kgs	0	nr		-
					-
	Fire Hose Reel System				-
					-
	Supply and install the following items complete with associated fittings ,supports and builder's work				-
	Pipework & Fittings to BS1387				-
					-
E	50mm Diameter, galvanised Carbon Steel Pipe	0	m		-
					-
F	25mm Diameter, galvanised Carbon Steel Pipe	0	m		-
					-
	Valves to BS Standards				-
					-
G	50mm Diameter, Gate Valve	0	nr		-
					-
H	50mm Diameter, check Valve	0	nr		-
					-
J	50mm Diameter, Automatic Air Release Valve	0	nr		-
					-
K	25mm Diameter, Gate Valve	0	nr		-
	To Collection			**TZS**	**19,070,000.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	FIRE FIGHTING INSTALLATIONS				
	Mechanical Engineering Installation				
	Fire Hose Reel to BS 3169				
A	Automatic hose reel, swinging type, Angus brand or other approved equivalent, with 20mm diameter rubber hose, 30m long provided with manual stop.	0	nr		-
					-
	Fire Signage				-
B	Supply and fix Photoluminiscent Fire Signage for Portable Fire Extinguishers and Fire Hose Reels as specified and indicated on the drawings.	0	nr		-
					-
	Operation and maintanance manuals				-
C	Allow sum for preparation of operation and maintanance manuals (3 sets) and manufacturers recommended maintanance program/advice for entire Fire Fighting Installations.	1	Item	2,000,000.00	2,000,000.00
					-
	SUNDRIES				
	Testing				
D	Allow for the testing the whole of the plumbing and engineering installations to Engineer's satisfaction.	1	Item	2,000,000.00	2,000,000.00
	As Built Drawings				
E	Allow sum for as built record (3 sets of A1) drawings for the entire plumbing and engineering installation.	1	Item	2,000,000.00	2,000,000.00
	To Collection			**TZS**	**6,000,000.00**
	COLLECTION				
	Page 2/17/1				34,105,000.00
	Page 2/17/2				21,825,000.00
	Page 2/17/3				-
	Page 2/17/4				9,807,400.00
	Page 2/17/5				-
	Page 2/17/6				12,847,736.00
	Page 2/17/7				3,182,800.00
	Page 2/17/8				-
	Page 2/17/9				7,244,014.00
	Page 2/17/10				19,070,000.00
	Page 2/17/11				6,000,000.00
	ELEMENT NR. 17: PLUMBING AND ENGINEERING INSTALLATIONS TOTAL CARRIED TO SUMMARY			**TZS**	**114,081,950.00**

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	MEDICAL GAS SYSTEM INSTALLATION				
	MEDICAL GASE PIPELINE SYSTEM INSTALLATION				
	Supply, Install, Test and Commission Medical gas pipeline system as specified in drawings, in this BoQ, and standards such as HTM 22, 02-01, NFPA 99 and as recommended by manufacturers. Materials of manufactures approved equal by the Engineer will be accepted				
	OXYGEN GAS PLANT				
A	**Fully Automatic Manifold for Oxygen** with automatic changeover between three sources with LCD display. The Manifold is fully automatic type & to switch from "Bank in Use" to "Reserve" bank without fluctuation in delivery supply line pressure & without the need for external power. After the switch-over the "Reserve" bank becomes the "Bank in Use" and the bank in use becomes the reserve bank. The system is able to maintain continuous supply in case of power failure. **Capacity:** (4 x3) - with capacity of 1500 litres/min. Set of connection for cylinders/HP valves, discharging valves & tail pipe. **Function:** Fully automatic self-contained shuttle-valve with no electrical power required for switching. Microprocessor based panel with display to monitor gas pressure in VIE tank, Right and Left cylinder bank through the manifold. Complete with gas heating system for evaporation of gases. Monitors and supervise the supply of medical gases. Units of measure PSI/bar. **Display:** LCD/LED display for the left bank, the right bank, VIE Tank & for the supply pressure. Complete with relief valve, Emergency shut off valve and battery/ bank room alarm for left and right cylinder bank. Two High pressure shut-off valve with sintered metal filters. Equipped with NIST connection.	0	Set	30,000,000.0	-
B	**Oxygen emergence unit** EMS: (4x3) cylinder with capacity of 1500 litres/min	0	Set	12,000,000.0	-
C	Storage gas cylinder for Oxygen size 'J' 14Cylinders with 150Bars	0	nr	840,000.0	-
D	Oxygen Filling ramp for 6 Cylinders	0	Item	7,000,000.0	-
	NITROUS OXIDE GAS PLANT				
A	**Automatic manifold for nitrous oxide.** The Manifold is fully automatic type & to switch from "Bank in Use" to "Reserve" bank without fluctuation in delivery supply line pressure & without the need for external power. After the switch-over the "Reserve" bank becomes the "Bank in Use" and the bank in use becomes the reserve bank. The system is able to maintain continuous supply in case of power failure.	0	Set	26,400,000	-
	To Collection				-

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	Capacity: (3x2) - with capacity of 1500 litres/min. Set of connection for cylinders/HP valves, discharging valves & tail pipe. **Function:** Fully automatic self-contained shuttle-valve with no electrical power required for switching. Microprocessor based panel with display to monitor different parameters and loggings. Units for pressure measurement (psi/pa/bar). **Display:** LCD/LED display for the left bank, the right bank, for the supply pressure. Complete with relief valve, Emergency shut off valve and battery / bank room alarm for left and right cylinder bank. Equipped with NIST connection.				
B	**Nitrous oxide emergency unit** EMS: (3x2) cylinders with capacity of 1500 litres/min & 2x3 Manual Manifold System	0	Set	12,000,000.0	-
	MEDICAL VACUUM PLANT				
C	**DUPLEX MEDICAL VACUUM SYSTEM AS SPECIFIED.** The capacity of Vertical Vacuum System is 2200 litres/min per vacuum pump Vacuum level @ 700-725 mmHg, Vibration isolation, pads, hour meters, circuit breakers, vacuum pump run lights Tank mounted system. Complete with filters, Vertical tank capacity 2500 Liter **Power:** Three phase 380 -420 V/50Hz or Single phase 220 V/50 HZ.	0	Set	96,000,000.0	-
D	**VACUUM REGULATOR WITH GAUGE / DIGITAL** The vacuum controller should be connected to wall source of vacuum using direct probe or rail mounting system. Vacuum, level 0 to 750 mm Hg complete with 1 liter suction bottles, unbreakable/ autoclaveable (2 each) complete with overflow system.	0	nr	650,000.0	-
	COMBINED MEDICAL AND SURGICAL AIR (MA4 & MA7) GAS PLANT				
A	**MEDICAL AIR STATION DUPLEX TYPE:** Compressed air unit for medical air system designed in accordance with current standards and directives. Composed of: - 2 lubricated screw air compressors **Capacity of Air production:** Main technical data: - Flow: 1500litres/min) each @ 10 bar - Preset working pressure: 10 / 12 bar Air Receiving tank/Reservoir: 1 galvanized receiver equipped with a pressure gauge, a shutoff valve, a safety valve, a programmable cyclic purge and Pressure switch. GALVANISED - **Capacity:** 1300 liters – Working pressure /certified test pressure : 16 / 22,5 bar 1 CPU Controller® control panel with digital screen and pressure sensor and alarms. **Power:** Three phase 380 -400 V/50Hz.	0	Set	144,000,000.00	-
	To Collection				-

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	MEDICAL AIR TREATMENT LINE DUPLEX ADSORPTION (Desiccant Type) Medical air treatment delivering medical grade air in accordance with Medicinal Air mono-graph of European Pharmacopeia to HTM 22. Complete duplex medical air treatment line composed of: - 2 adsorption air dryers without heat, Dew point between -40 to -80 Degree C	0	Set	7,500,000.0	-
B	**FILTRATION SYSTEM** -2 pre-filters with automatic cyclic drain valves, - 2 sub-micronic filters, - 2 dust filters, - 2 activated carbon filters, - 2 CO/CO2 catalyzer filters, - 2 bacterial filters, Dew Point Analyser with display on LCD Mounted on the dryer with shut off valves and parallel connections to service and change filters Without interrupting the air supply.	0	Set	18,000,000.0	-
C	**CONTROL** - 1 CPU Controller® control panel complete with digital screen and pressure sensor	0	Set	9,800,000.0	-
D	**PRESSURE REDUCING SET AIR DUPLEX:** 10 bar by-pass valves, copper piping and fittings, for 4bar +7bar outlets pressure with Max. Treated Flow of 100 m3/h Upstream pressure of 10 bar (adjustable), Downstream pressure og 8 bar (adjustable) Complete with distribution block with shut off valve and pressure gauge, on assembly panel with incoming and Out going copper pipe.	0	Set	12,000,000.0	-
	AGSS PLANT				
A	**Duplex AGSS System** with twindie cast aluminum side channel pumps Air cooled electric motor direct coupled impeller assembly of 415 Volts, 3phase, 50Hz and capacity of 1050 litres/min, at 1.1kw each with built in flow indication and pressure regulation valve. Each pump shall include a swing no spring type non-return valve to enable safe and efficient maintenance of 1 pump while the other pump is in service. It should be mounted on a single frame with a central control panel and separate warning label.	0	Set	33,000,000.0	-
	Vacuum/Flow Regulating Valve: A vacuum/flow regulating valve shall be provided and positioned at the pump, comprised of a spring loaded plate valve and inlet silencer. The valve shall be changeable with the pipeline inlet in order to provide flexibility on site. The plate shall control air ingress into the pipeline system, thereby controlling the vacuum level within. An optional air inlet filter shall be available should the air quality be poor/dusty offering further protection against dirt ingress into the pump. The vacuum/ flow regulator shall ensure a maximum vacuum of 200mb below atmospheric pressure is not exceeded and shall be factory preset at 150mb.				
	Control system: Each motor control panel shall incorporate an emergency isolation switch which controls all electrical power to the exhauster unit and system indication lights. All control and status indication circuitry shall be 24V AC. A green normal indicator shall indicate the system is in a normal state. An amber plant fault indicator will illuminate if a plant fault occurs. A red plant emergency indicator will illuminate if a plant emergency occurs. A light emitting diode indicating vacuum normal shall illuminate to indicate the vacuum state is normal. For duplex AGSS plant a push button selector will select the duty pump by pressing the appropriate push button. A light emitting diode will indicate which pump has been selected. A light emitting diode will illuminate if a fault occurs with the duty pump. Volt free contacts are available for remote status indication to BMS alarm				
	To Collection				

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	GAS TERMINAL/ OUTLETS & BED HEAD UNITS				
	Bed head unit: Each unit consists of Horizontal type panel with railing, Built in over bed light with ON/OFF switch, Built in reading Light with ON/OFF switch, completely fitted Electrical Provisions, Electrical sockets, nurse call, light and gas outlet; 2Nos. & 2 Nos. multi pin plug All wiring conforms to standards, ground / earth-10 gauge (Green) Separate ducts for Electrical + Gas Pipes, Monitor Shelf made of SS and IV Pole with rail clamps including Provision for nurse call/ alert button. All terminals should be as per BS5682:1984 (1992)				
C	For Gas outlet provisions of: (2xO_2, 1xMA4 & 1xVAC)	0	nr	2,187,500.0	-
I	**Medical Ceiling Pendant** (Multi-Movement) fully with electrical sockets, data, nurse call and lamp. For Gas outlet provisions of : (2xO2, 1xN_2O, 2xMA4, 1xMA7, 2xVAC & 1xAGSS)	0	nr	15,000,000.0	-
	OXYGEN FLOW METER				
J	**Oxygen Flow meter with Humidifier Bottle:** Flow meter should be Backpressure Compensated, Flow meter should be accurate gas flow measurement and control within arrange of 0-15 liters per minute. It should meet strict precision and durability standards. Flow meter body should be made of brass material. Flow tube and shroud components should be made of clear impact resistant polycarbonate. The humidifier bottle should be unbreakable polycarbonate material and autoclavable at 134 degrees centigrade.The humidifier should have built in safety valve.	0	nr	150,000.0	-
	AREA VALVE SERVICE UNITS				
	The Area Valve Service Unit (AVSU) shall provide area isolation facility for use either in an emergency or for maintenance purposes. It shall be possible to insert a physical barrier (spade) on either side of the valve when required without the necessity to totally dismantle the line valve. The area valve service unit shall be fully gas specific, permanently labeled to identify the Medical gas service and shall incorporate gas specific NIST connections to BS5682:1984 on each side of the line valve. Pressure gas services (not vacuum) NIST connections shall incorporate self sealing valves which are normally held closed by gas pressure.				
	Multiple Zone Valve Box with digital Monitoring Gauge for gases, microprocessor based monitors with Alarm and Remote Sensor for Gases. LCD display for pressure, readable in Psi/bar. Self-diagnostic, test and mute button with low alarm condition. Each wall type zone valve box. Steel valve box which houses shut off ball valves with tube extension. Each wall type zone valve box consists of ball valve and inlet/outlet tube connections. **Country of origin:** EEC/USA/Japan/UK				
A	Area or Zone Valve Service Unit for 6 Gas Provisions	0	nr	480,000.00	-
B	Area or Zone Valve Service Unit for 3 Gas Provisions	0	nr	300,000.00	-
	To Collection				

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	Page 2/10/4				
	ISOLATION VALVES				
	Should be 90degree turn,ballvalvesofbrassbody,dulychromeplatedontheouterperiphery,SS ballwithhigh qualityTeflonseated,connectedtopipelinewithbrassferruleforeasymaintenance.ID of the copper pipe and the ball valve should have same dimensions to avoid the flow friction				
D	Isolation valve 28mm diameter	0	nr	480,000.00	-
E	Isolation valve 22mm diameter	0	nr	300,000.00	-
F	Isolation valve 15mm diameter	0	nr	240,000.00	-
	Gas outlet Points				
C	For Gas outlet provisions of: ($1xO_2$, 1xMA4 & 1xVAC)	0	nr	12,000,000	-
G	For Gas outlet provisions of: ($2O_2$, $1xN_2O$, 2xMA4, 2xVAC & 1xAGSS)	0	nr	2,100,000	-
I	**Medical Ceiling Pendant** (Multi-Movement) fully with electrical sockets, data and lamp. For Gas outlet provisions of : (2xO2, $1xN_2O$, 2xMA4, 1xMA7, 2xVAC & 1xAGSS)	0	nr	18,000,000	-
	MASTER AREA ALARM PANEL				
A	**Digital Area Alarm for Six Gas Systems:-**Microprocessor controlled Area Gas alarm panel five Lines,Should audio-visual alarms for each gas used on the floor and come fitted with test and mute button. Running on electricity 220-240V with AVS, these units are suggested to be fitted on each floor as well as areas of heavy usage. It should be fitted with a digital pressure gauge. It indicates low, medium & high pressure sensors.	0	nr	5,400,000.00	-
	COPPER PIPING SYSTEM				
	All copper pipes should be solid drawn, seamless, deoxidized, non-arsenical, harf hard, tempered and degreased material. Copper tubes should be suitable for Medical Gas use and conforming to BS:EN:13348:2001+A1:2005 and BS ISO1309.				
	Copper tubes shall be complete with all fittings such as elbows, tees, reducers, hangers and supports and all other accessories necessary for a system to function properly				
B	copper pipe 12mm OD x0.9mm thick	50	m	27,000	1,350,000.00
C	copper pipe 15mm OD x0.9mm thick	600	m	47,250	28,350,000.00
D	copper pipe 22mm OD x0.9mm thick	150	m	60,750	9,112,500.00
E	copper pipe 28mm OD x0.9mm thick	85	m	81,000	6,885,000.00
F	copper pipe 35mm OD x0.9mm thick	35	m	94,500	3,307,500.00
G	copper pipe 42mm OD x0.9mm thick	30	m	108,000	3,240,000.00
	Elbow				
H	D 12mm	112	nr	4,000	448,000.00
J	D 15mm	60	nr	5,000	300,000.00
K	D 22mm	30	nr	8,000	240,000.00
L	D 28mm	20	nr	14,850	297,000.00
M	D 35mm	16	nr	27,000	432,000.00
N	D 42mm	12	nr	40,500	486,000.00
	To Collection				**54,448,000**

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	Page 2/10/5				
	Tee				
P	D 12mm	26	nr	5,000	130,000.00
Q	D 15mm	35	nr	5,000	175,000.00
R	D 22mm	25	nr	6,000	150,000.00
S	D 28mm	30	nr	20,000	600,000.00
T	D 35mm	16	nr	45,000	720,000.00
U	D 42mm	6	nr	81,000	486,000.00
	Reducer				
V	D15 x D 12mm	128	nr	10,800	1,382,400.00
W	D 22 x D 15mm	25	nr	5,400	135,000.00
X	D28 x D 22mm	23	nr	9,450	217,350.00
Y	D35 x D 28mm	10	nr	27,000	270,000.00
Z	D42 x D 35mm	10	nr	40,500	405,000.00
	Straight coupler				
A1	D 12mm	10	nr	3,900	39,000.00
B1	D 15mm	120	nr	6,500	780,000.00
C1	D 22mm	30	nr	10,400	312,000.00
D1	D 28mm	17	nr	13,000	221,000.00
E1	D 35mm	7	nr	19,500	136,500.00
F1	D 42mm	6	nr	20,250	121,500.00
	Pipe work support system components Munsen Rings				
G1	D 12mm	42	nr	5,000	208,333.33
H1	D 15mm	500	nr	6,250	3,125,000.00
J1	D 22mm	125	nr	6,250	781,250.00
K1	D 28mm	71	nr	7,500	531,250.00
L1	D 35mm	29	nr	11,250	328,125.00
M1	D 42mm	25	nr	18,750	468,750.00
	ELECTRICAL SYSTEM				
A	Allow for provision of power cable and signal cable complete with trays, conduits and trunking for medical gas system including alarm system and nurse calling system as per standards and manufacturers recommendation	0	Item	12,000,000.0	-
	PRELIMINARIES				
A	Allow preparation of 4 copies of "As built drawings" as specified	1	Item	600,000	600,000.00
B	Allow for production of shop drawings as specified	1	Item	600,000	600,000.00
C	Allow for Testing and Commissioning of the entire Installation and preparation of reports as specified.	0	Item	20,000,000	-
D	Allow the cost for labeling the system with the special labels as system requirements and standards	0	lot	600,000	-
E	Allow for production operation and maintenance manual for all equipment as specified in the contract.	0	Item	3,600,000.0	-
F	Allow for maintenance of equipments during defect liability period as specified	0	Item	15,000,000.0	-
	To Collection				**12,923,458**

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	Page 2/10/6				
	COLLECTION				
	Page 2/10/1				-
	Page 2/10/2				-
	Page 2/10/3				-
	Page 2/10/4				-
	Page 2/10/5				54,448,000.00
	Page 2/10/6				12,923,458.33
	Page 2/10/7				
TOTAL COST FOR MGP SYSTEM CARRIED TO SUMMARY				**TZS**	**67,371,458.33**

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
	LABORATORY GAS INSTALLATIONS				
	Piping				
A	**Supply install, test and commission in good working condition copper pipes and fittings for gases that comply with BS EN ISO 7396-1:2016 and ASTM A312M;Pipes and fittings in running length fixed to backgrounds requiring plugging**				
	22mm diameter, copper pipe	6	m	28,000.00	168,000
	15mm diameter, copper pipe	30	m	18,000.00	540,000
	12mm diameter, copper pipe	6	m	10,000.00	60,000
B	**Elbow**				
	22mm diameter	3	nr	10,500.00	31,500
	15mm diameter	10	nr	7,500.00	75,000
	12mm diameter	8	nr	7,500.00	60,000
C	**Tee**				
	22mm diameter	3	nr	10,500.00	31,500
	15mm diameter	8	nr	7,500.00	60,000
	12mm diameter	4	nr	7,500.00	30,000
D	**Reducer**				
	22/15mm	3	nr	105,000.00	315,000
E	**Reducer**				
	15/12mm	6	nr	105,000.00	630,000
F	**Gas control Valve**				
	22mm diameter	2	nr	178,500.00	357,000
	15mm diameter	6	nr	105,000.00	630,000
	12mm diameter	4	nr	55,500.00	222,000
G	**High pressure Hose**				
	Supply and install flexible high-pressure hose rubber/plastic with Jubilee clips and inner diameter of 8mm	3	nr	150,000	450,000
	To Collection				**3,660,000**

ITEM	DESCRIPTION	QNTY	UNIT	RATE	AMOUNT
G	**Bunsen burner** Supply, install, test and commission Laboratory Bunsen burner complete, the air hole allows pre-mixing of air and gas before combustion to occur, a coller around the base of the chimney, with a hole that aligns with the air hole, acts as an air regulator and fixing accessorires	3	nr	125,000	375,000
H	**Cylinders Gas Storage** Supply, install, test and commission Free Standing Compressed Flammable Cylinder Complete with proper Signages, Clipping kits, Pressure Gauges, Flow Control Valves, Adjustable knob and Safety Valves 38kg Butane/Propane gas gross weight	2	nr	745,000.00	1,490,000
J	**Gas Tap** Supply, install, test and commission laboratory one-way in tap (1way gas tap) bench mounted drop level gas taps with corrosion resistance, copper or brass made 90 degree drop level control, 3/8" BSPx60mm flat ended brass, shank with backnut, intergral anti-rotation pin at 17mm centre and other associated accessories.	3	nr	250,000.00	750,000
K	**Pressure Regulator for Gas Cylinders** Automatic change Over regulator with Pressure relief or with Over pressure shut off capability.	2	nr	450,000.00	900,000
L	**Manifold** Supply, install, test and commission gas supply manifold.	2	Item	150,000.00	300,000
M	Allow for copper pipe fittings i.e. elbow, tee, reducer, coupler	1	Item	250,000.00	250,000
N	Allow for testing and commissioning of the entire System Installation	1	Item	350,000.00	350,000
P	Allow preparation of three copies of " Installed Drawings" and operating manuals for all equipment's as specified	1	Item	500,000.00	500,000
	To Collection				**4,915,000**
	COLLECTION				
	Page 2/10/1				3,660,000
	Page 2/10/1				4,915,000
	TOTAL COST FOR LABORATORY GAS INSTALLATIONS			**TZS**	**8,575,000**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	LABORATORY DRAINAGE SYSTEM				
	LABORATORY DRAINAGE & SANITARY APPLIANCE				
A	**Supply,install,testing and commissioning the following laboratory facilites.** Supply, install, testing and commissioning the Vulcathene Laboratory sinks which is chemical resistance with the following specification; The 602 sink is extremely robust and has a self draining base. Its recessed outlet will accept the flange of the 11 /2" BSP 504 non-overflow threaded outlet but, if required, a 509 overflow assembly can be fitted. These sinks are designed for mounting on the underside of work surfaces.	3	pcs	780,000	2,340,000.00
B	Bottle trap supply and install bottle trap molded from polyppropylene co polymer resin	3	pcs	560,000	1,680,000.00
C	Dillution recovery trap Supply and install 4.5Litres dillution recovery trap	3	pcs	827,325	2,481,975.00
D	Supply anf install Taps for laboratory sinks as to CARLOS ARBOLES brand	3	pcs	650,000	1,950,000.00
	EMERGENCY SHOWER AND EYEWASH				
E	Supply, install, test and commission combined stainless steel Emergency shower and Eyewash complete of comprising: shower mixer, 1.5m plastic flexible hose pipe, hand shower spray, sliding bar and soap holder complete with all necessary accessories. (CARLOS ARBOLES 4220)	2	Nr	6,749,295	13,498,590.30
	NEUTRALIZATION TANK				
F	Supply, Install, test and commission the stainless steel grade SUS 316 or 304 Neutralizing Tank of 100 litres capacity with The FN 100 model a medium capacity FROSCO brand or equally appoved. The tank Suitable for centralized installation for neutralizing and dilution of laboratory acids and chemicals. It is fabricated in stainless steel materials offering high chemical and impact resistant. It has horizontal inlet and outlet of 76 mm diameters. The cover is a screw down stainless steel plate. Periodic maintenance is recommended and the neutralizing agent topped up if necessary	1	nr	11,232,000	11,232,000.00
G	Allow construction of laboratory dilution tank with diameter of 3.0m and 2.0m deth, backfilling with proper materials as approved by structural engineer.	1	nr	5,000,000	5,000,000.00
	Sub-Total to collection				**38,182,565.30**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Vulcathene Pipes				
	Supply, install, testing and commissioning the following laboratory drainage pipes and fittings				
A	38mm Diamater	48	Lm	34,000	1,632,000.00
B	51mm Diamater	38	Lm	45,000	1,710,000.00
C	76mm Diamater	18	Lm	55,000	990,000.00
D	100mm Diamater	68	Lm	68,000	4,624,000.00
	Elbow				
E	38mm Diamater	9	Nr.	6,000	54,000.00
F	51mm Diamater	6	Nr.	8,500	51,000.00
G	76mm Diamater	3	Nr.	85,000	255,000.00
H	102mm Diamater	3	Nr.	12,000	36,000.00
	Tee-Wye				
J	38mm Diamater	3	Nr.	54,500	163,500.00
K	51mm Diamater	2	Nr.	74,400	148,800.00
	Line coupler				
N	38mm Line coupler	3	Nr.	29,250	87,750.00
P	51mm Line coupler	3	Nr.	40,388	121,164.00
Q	102mm Line coupler	6	Nr.	119,700	718,200.00
	Bends				
R	38mm Inspection bend	3	Nr.	45,900	137,700.00
	Reducing Coupler				
S	51x38mm reducing coupler	3	Nr.	29,250	87,750.00
T	76x51mm reducing coupler	3	Nr.	29,250	87,750.00
	Sub-Total to collection				**10,904,614.00**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Vulcathene Pipes Cont'd				
	Blacking off				
A	51mm Blanking off plug	3	Nr.	12,713	38,139.00
B	102mm Blanking off plug	3	Nr.	42,750	128,250.00
	Loose Nut				
C	38mm Loose nut bend	3	Nr.	40,388	121,164.00
D	51mm Loose nut bend	3	Nr.	50,488	151,464.00
E	Flexible connector-38mm (1m length)	3	Nr	210,000	630,000.00
F	Galvanized support channels-38mm	3	Nr	96,000	288,000.00
G	Ditto 51mm	3	Nr	96,000	288,000.00
H	Flexible drain coupling	3	Nr	68,000	204,000.00
J	Flexible adaptor couplings	3	Nr	80,100	240,300.00
K	Sweet bends (92 1/2°) -38mm	3	Nr	36,000	108,000.00
L	Ditto -51mm	3	Nr	41,000	123,000.00
	Metal pipe clamp, made of rubber/steel				
M	Ø38mm	6	Nr	25,000	150,000.00
N	Ø51mm	12	Nr	25,000	300,000.00
P	Ø76mm	2	Nr	25,000	50,000.00
Q	Allow the preparation of three copies of as Built drawings to the satisfaction of service Engineer	1	item	1,300,000	1,300,000.00
R	Allow testing of the installed system to the satisfaction of service Engineer	1	item	1,500,000	1,500,000.00
	Sub-Total to collection				**5,620,317.00**
	COLLECTION				
	Page 3/17/1				38,182,565.30
	Page 3/17/2				10,904,614.00
	Page 3/17/3				5,620,317.00
TOTAL COST FOR LABORATORY DRAINAGE SYSTEM				**TZS**	**54,707,496.30**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NR. 12: AIR CONDITIONING AND VENTILATION				
	GROUND FLOOR **Single Split Air Conditioners**				
	Hi- Wall Units				
	Supply, install, test and commission a set of Single Split type Air Conditioner of Carrier Brand, LG, Samsung or Approved Equivalent. Each set shall be complete with wired remote controller, outdoor aircooled condensing unit, indoor hi-wall fan coil unit high performance washable air filter, electrostatic filter, AVS and activated charcoal filter and as per Specifications and as Stipulated in the Drawings. Supports and Fittings are inclusive.				
A	Cooling Capacity: 3.5kW	20	nr	2,700,000	54,000,000
	Refrigerant Piping				
	Supply and Install refrigerant copper pipings for both liquid and gas according to BS 2871, Equipments Manufacturer Requirements and as per drawings complete with associated fittings, insulation, sleeves, supports and PVC trunking where aplicable				
B	6.35 Diameter copper pipe	140	m	13,500	1,890,000
C	15.88 Diameter copper pipe	140	m	14,500	2,030,000
D	Supply and install uPVC drainage pipes, minimum 25mm inside diameter as per specifications and drawings, complete with insulations, supports, fittings and PVC trunking as recommended by Equipments' manufacturer and specifications.	120	m	6,000	720,000
					-
					-
					-
					-
					-
	To Collection				**58,640,000**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	AIR CONDITIONING AND VENTILATION (Cont'd)				
	Exhaust Fans				
A	Supply, install, test and commission **window/wall mounted**, axial flow exhaust fans, Xpelair Brand or Approved Equivalent for toilets and kitchen as per specifications and drawing, complete with associated controls, fittings and supports				
B	Air extract fan, capacity: 30L/s, at 60Pa	1	nr	405,000	405,000
C	Air extract fan, capacity: 50L/s, at 60Pa	1	nr	465,000	465,000
D	Duct inline Air extract fan, capacity: 100L/s, at 60Pa	5	nr	425,000	2,125,000
E	250mmx 250mm Extract grille on the wall with back-flow shutter	9	nr	375,000	3,375,000
	Flexible ducts of aluminium spiral and following dimmensions				
F	100mm Diameter	14	m	420,000	5,880,000
G	200mm Diameter	20	m	570,000	11,400,000
	To Collection				**23,650,000**

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Flexible ducts of aluminium spiral and following dimmensions				
F	100mm Diameter	14	m	420,000	5,880,000
G	200mm Diameter	20	m	570,000	11,400,000
H	Allow sum for the supply and installation of all control wiring cables between indoor units and interconnections to the outdoor unit as instructed by the manufacturer	1	Item	3,000,000	3,000,000
J	**As Built Drawings** Allow sum for as built record (3 sets of A1) drawings for entire Air Conditioning and Ventillation Installations.	1	Item	4,500,000	4,500,000
	Test and commissioning				
K	Allow sum for testing and commissioning of the entire Air Conditioning and Ventillation installations and set the system to work to the local authority requirements and engineers satisfaction.	1	Item	11,000,000	11,000,000
	To Collection				**35,780,000**
	COLLECTION				
	Page 2/12/1				58,640,000
	Page 2/12/2				23,650,000
	Page 2/12/3				35,780,000
	ELEMENT NR. 12: AIR CONDITIONING AND				**118,070,000**

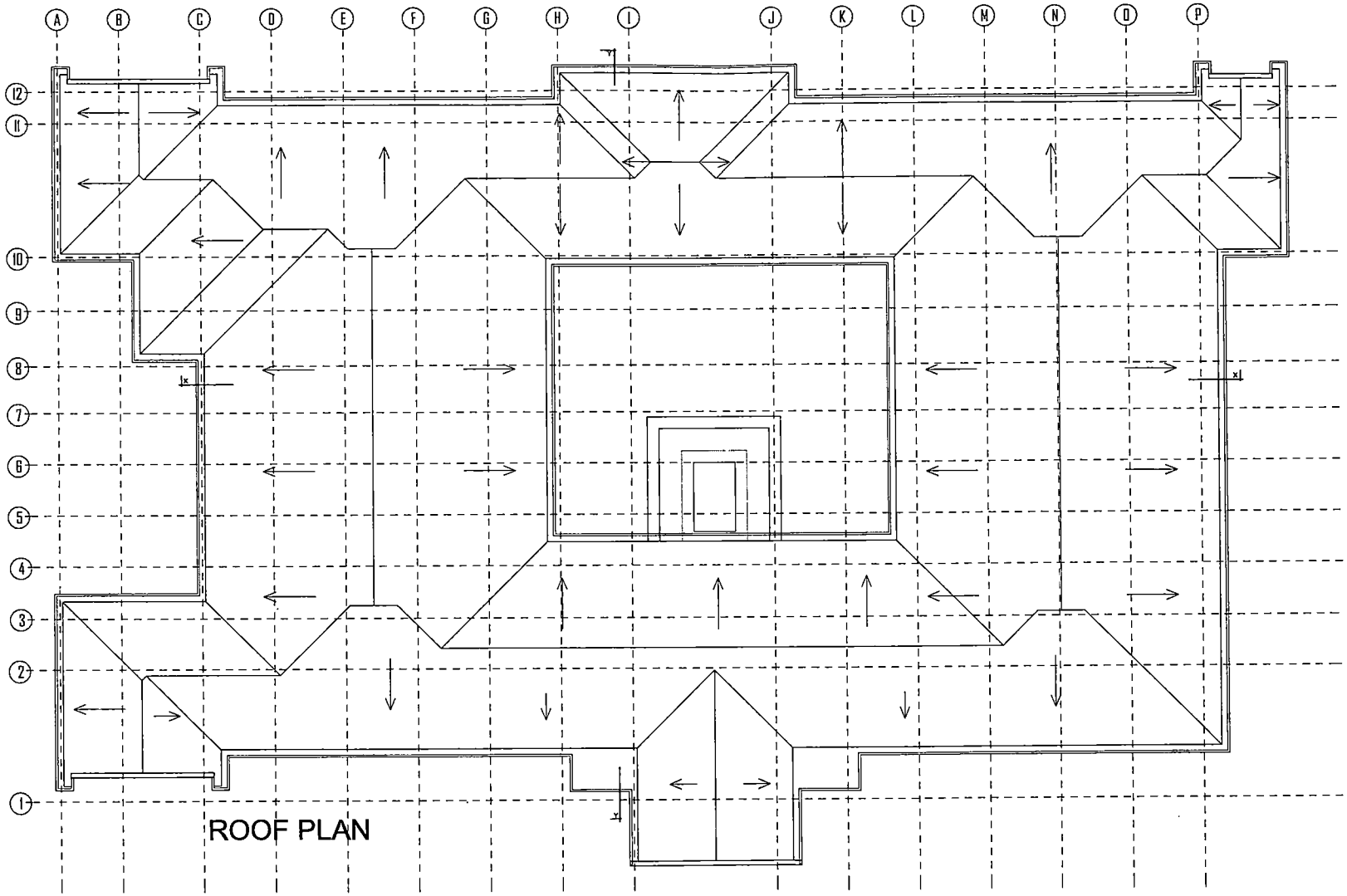
Item	Descriptions	Amount in Tshs
	BILL NR. 2 - MEASURED WORK	
	SUMMARY	
	ELEMENT NR. 1 - SUBSTRUCTURE	403,247,400.00
	ELEMENT NR. 2 - FRAME	398,206,400.00
	ELEMENT NR. 3 - STAIRS	18,282,600.00
	ELEMENT NR. 4 - WALLING AND PARTITIONING	90,810,004.00
	ELEMENT NR. 5 - ROOFING	-
	ELEMENT NR. 6 - DOORS	184,647,610.00
	ELEMENT NR. 7 - WINDOWS	51,861,000.00
	ELEMENT NR. 8 - FINISHINGS	284,540,302.90
	ELEMENT NR. 9 - PAINTING AND DECORATIONS	66,354,926.00
	ELEMENT NR. 10 - PLUMBING AND ENGINEERING INSTALLATIONS	114,081,950.00
	ELEMENT NR. 11 - ELECTRICAL INSTALLATION	305,698,700.00
	ELEMENT NR. 12 - AIR CONDITIONING INSTALLATION	118,070,000.00
	ELEMENT NR. 13 - FITTINGS AND FIXTURES	-
	ELEMENT NR. 14 - FOUL WATER DRAINAGE	66,012,000.00
	ELEMENT NR. 15 - SITE WORKS	-
	LIFT INSTALLATIONS	-
	MEDICAL GAS	67,371,458.33
	LAB DRAINAGE	54,707,496.30
		2,223,891,847.53
	Less Discount 8%	177,911,347.80
	BILL NR. 2: MEASURED WORK - TOTAL CARRIED TO GENERAL SUMMARY	**2,045,980,499.73**

ITEM	DESCRIPTION	UNIT	AMOUNT
	BILL NR. 3: PRIME COSTS AND PROVISIONAL SUMS		
	Prime Cost Sums		
	Electrical Connection		
A	Provide the prime cost sum of T.shs. 5,000,000 for electrical main connection to be carried by TANESCO	Sum	5,000,000.00
B	**Add:** for profit	10%	500,000.00
C	**Add:** for general Attendance	Item	250,000.00
	Water Connection		
D	Provide the prime cost sum of T.shs. 2,500,000 for water main connection to be carried by local authority	Sum	2,500,000.00
E	**Add:** for profit	10%	250,000.00
F	**Add:** for general Attendance	Item	125,000.00
	Telephone Connection		
G	Provide the prime cost sum of T.shs. 2,000,000 for telephone Connection to be carried out by Tanzania Telecommunication Company	Sum	2,000,000.00
H	**Add:** for profit	10%	200,000.00
J	**Add:** for general Attendance	Item	100,000.00
	Provisional Sums		
K	Allow a Provisional sum of T.shs. 5,000,000 for storm water drainage	Sum	5,000,000.00
L	Allow a Provisional sum Tshs. 165,425,816 for contingency to be expended or deducted by the Project Manager	Sum	165,425,816.01
	BILL NR. 3: PRIME COSTS AND PROVISIONAL SUMS TOTAL CARRIED TO GENERAL SUMMARY		**181,350,816.01**

GENERAL SUMMARY

ITEM	DESCRIPTION		Amount in T.shs
A	BILL NR.1 - PRELIMINARIES		40,000,000.00
B	BILL NR.2 - MEASURED WORK		2,045,980,499.73
C	BILL NR.3 - PRIME COSTS AND PROVISIONAL SUMS		181,350,816.01
	SUB-TOTAL		**2,267,331,315.74**
D	Allow for the cost of insurance against death of or injury to persons, loss of or damage to any property (other than the works) as clause 13.1 (c) & (d) of the conditions of the contract	Item	6,934,759.11
E	Allow for the cost of insurance against loss of or damage to the works, plant, etc. as clause 13.1 (a) & (b) of the conditions of the contract	Item	-
F	Allow for the cost of providing sureties for 10% of the contract sum as clause 54 of the conditions of the contract.	Item	13,869,518.37
	SUB-TOTAL		**2,288,135,593.22**
	ADD: VAT, 18%		411,864,406.78
	TOTAL FOR FIXED PRICE CARRIED TO FORM OF BID		**2,700,000,000.00**

DRAWINGS



Building Section
Policy and Planning Department
Ministry of Health, Community Developent,
Gender, Elderly and Children
Goemment City-Mtumba
Afya Road/Street
P.O. Box 743
40478, DODOMA

Approved

No.	Description	Date

Client
MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN.

Project
PROPOSED OPD BLOCK FOR REGIONAL REFFERAL HOSPITAL

FLOOR PLAN OPD

Project number	2021/04/29	A103	
Date	29 April 2021		
Drawn by	BONIFACE VICTOR		
Checked by	BONIFACE VICTOR	Scale	1 : 100

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