THE UNITED REPUBLIC OF TANZANIA MINISTRY OF HEALTH TABORA REGIONAL REFFERAL HOSPITAL - KITETE



CONTRACT DOCUMENT

FOR

PROPOSED CONSTRUCTION OF STAFF HOUSE AT KITETE REFFERAL HOSPITAL IN TABORA REGION

CONTRACT No. ME 007/2021 - 2022/TRRH/W/33

CLIENT:

MEDICAL OFFICER INCHARGE, P.O.BOX 22 TABORA,

CONTRACTOR
M/S REGIONAL MANAGER,
TANZANIA BUILDINGS AGENCY,
P.O. BOX 2133, TABORA

APRIL, 2022

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1. FORMS OF AGREEMENT

FORM OF AGREEMENT

This Agreement is made this	12th	day of	APRIL	2022

BETWEEN

Kitete Regional Refferal Hospital P.O.BOX 22 Tabora. (Hereinafter called the "Employer")

And

Regional Manager, Tanzania Building Agency, P.O.BOX 2133 Tabora (herein-after called the 'Contractor') of the other party

WHERE AS the **Employer** is desirous that the Contractor execute the Construction of Staff House at Kitete Regional Refferal hospital, Tabora Municipality,

Contract No.ME 007/2021-2022/TRRH/W/33

(Herein-after called 'the works')

And the Employer has accepted the Tender by the Contractor for the execution and completion of such a work and remedying of any defects therein in the sum of Tanzania Shillings NINETY MILLION, EIGHTY ONE THOUSANT NINE HUNDRED SIXTY SEVEN ONLY (90,081,967.00) VAT inclusive (hereinafter called "Contract Price")

Now this agreement witnesseth as follows:

- In this Agreement, words and expressions shall have the same meaning as are respectively assigned to them in the Conditions of Contract hereinafter reffered to, and they shall be deemed to form and read and construed as part of this Agreement.
- 2. 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 with the following aspects.

- Form of Agreement; (a)
- Client's notification of Award; (b)
- The Letter of Acceptance; (c)
- Minutes of negotiations and addenda (if any); (d)
- The Form of Bid; (e)
- The Special Conditions of Contract; (f)
- The General Conditions of Contract; (g)
- Specifications (h)
- Drawings (i)
- Bills of Quantities; (j)
- Power of Attorney (k)
- Form of integrity (I)
 - 3. 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 as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract. The Shillings Tanzania project this Contract

NINENTY MILHON, ELGHY ONE THOUSAND NINE HUNDRED SIXTY SEVEN ONLY

90,081,967.00 (VAT inclusive)

In WITNESS WHERE OF, the Parties hereto have caused this Article of Agreement to be executed in accordance with the respective laws in the day and year first above written.

SIGNED by the said ACTING MEDICAL OFFICER INCHARGE AT KITETE REGIONAL REFFERAL HOSPITAL P.O.BOX 22, TABORA, for and on behalf of the Employer.

Name: DQ, MARK NAZIR
Signature:
Occupation: MEDICAL OFFICER IN CHARGE HOSPITAL
Date: 12 04 2022 In the Presence of Name: ABDAL (ALL Harris)
In the Presence of
Name: ABDALLAH HARUNA
Signature:
Designation: Ag. HOSPITAL HEALTH SECRETARY
SIGNED by the said REGIONAL MANAGER TANZANIA BUILDING AGENCY P.O.BOX 2133, TABORA for and on behalf of the 'Contractor'
Name: ABRAHAM NDA21
Signature:
Occupation: For Agriculture Ag
Date. 12/04/2021
DI III
In the Presence of
In the Presence of Name: Eng. GoodLuck SANGA
In the Presence of

2. CLIENT'S NOTIFICATION OF AWARD

THE UNITED REPUBLIC OF TANZANIA MINISTRY OF HEALTH



Kitete Regional Regional Referral Hospital, P.O Box 22, TABORA

Ref. No.AB.78/88/01"A"/165

Date 11/04/2022

Regional Manager, Tanzania Buildings Agency P.O. Box 2133, **TABORA**

RE: NOTIFICATION OF AWARD FOR TENDER No.ME007/2021-2022/TRRH/W/33 FOR CONSTRUCTION OF STAFF HOUSE IN TABORA MUNICIPALITY

Reference is made to your tender submission letter of with reference No.EA:51/905/17/28 dated **04th April, 2022** in respect of the above tender.

I'm pleased to inform you that, the Tabora Regional Referral Hospital — Kitete Tender Board through his meeting held on **06**th **April**, **2022**, has agreed to award you a contract for construction of Staff House in Tabora Municipality at a contract price of Tshs.**90,081,967.00** (Ninety Million, Eighty One Thousand, Nine Hundred Sixty-Seven only), (VAT Inclusive) for a period of **8** weeks.

Together with this letter, we are attaching a draft contract for your perusal; you should communicate your acceptance of award in writing to the Regional Medical Officer.

Yours Sincerely,

Medical Officer In charge Kitete Regional Refferal Hospital Tabora 3. LETTER OF ACCEPTANCE

THE UNITED REPUBLIC OF TANZANIA MINISTRY OF WORKS AND TRANSPORT

(TANZANIA BUILDINGS AGENCY)

Telegrams: MAJENGO

Telephone: 026-260 5237
Fax : 026-260 5961
E-mail: rm.tabora@tba.go.tz

Ref. No.EA:51/905/17/29

Medical Officer In charge, Kitete Regional Referral Hospital, P.O. Box 22, Tabora.



Regional Manager's Office, P.O Box 2133, TABORA.

11/04/2022

Re: Proposed Construction of Staff House at Kitete Referral Hospital - Tabora

Sub: Letter of Acceptance

Please refer to the above heading and your letter with reference No.AB.78/88/01"A"/165 dated 11/04/2022.

We wish to confirm to you that we are accepting your offer of **Tshs.90,081,967.00** (VAT **Inclusive**) for executing the above said works.

We are promising to produce good and quality work within <a>8 Weeks' time.

Thanking you for continued cooperation.

With kind regards,

Abraham Ndazi

For: Ag.REGIONAL MANAGER

TABORA

RA

Menela Wa Mkoa

Menela Wa Mkoa

Menela Wa MAJENGO TANZANIA

WAKALA WA MAJENGO TANZANIA

TABORA

4. NEGOTIATION MINUTES

5. CONTRACTOR'S FORM OF BID

FORM OF BID

Date: 11/04/2022

Medical Officer Incharge, Kitete Regional Referral Hospital, P.O. Box 22, TABORA.

We offer to execute the Contract No. ME 007/2021-2022/TRRH/W/33 for Proposed Construction of Staff House at Kitete Refferal Hospital In Tabora Region in accordance with the Conditions of Contract accompanying this Bid for the Contract Price of TShs. Ninety Million Eighty One Thousand Nine Hundred Sixty Seven Only [amount in words] TShs 90,081,967.00 at a Contract Period of Sixteen (8) weeks.

The Contract Price was arrived as follows:-

S/N	DESCRIPTION	CONSTRUCTION COST	TOTAL COSTS
1	Proposed Construction Staff House at Kitete Referral Hospital In Tabora Region.	90,081,967.00	90,081,967.00

The Contract shall be paid in the following currencies:

Currency	Percentage payable in currency	Rate of exchange: one foreign equals [insert local]	Inputs for which foreign currency is required	
(a)	TSHs	N/A	N/A	

The advance payment required is:-

Amount	Currency
(a) 15% of the Contract Sum	13,512,295.05/=

We accept the appointment of National Construction Council as 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.

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 any other official regulations.

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 of 90 days and tender security required by the tendering documents and specified in the Tender Data Sheet.

Authorized Signature:

Name and Title of Signatory: ABRAHAM NDAZI, AG. REGIONAL MANAGER TABORA

WANZANIA BUILDING AGENCY Name of Bidder: Tanzania Buildings Agency

Address: P.O. Box 2133, TABORA

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6. SPECIAL CONDITIONS OF CONTRACT

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Special Conditions of Contract

The following Special Conditions Contract (SCC) shall supplement the GCC. Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

SCC Clause	GCC Clause	Description
1.	1.1.2 & 1.3	The Employer is: Kitete Regional Referral Hospital P.O Box 22, Tabora
2.	1.1.2 & 1.3	The Project Consultant is Regional Engineer's Office P.O. Box 25 Tabora
3.	1.1.3	Time for completion is three (3) months
4.	1.1.3	The defects liability period is 365 days (1 Year)
5.	1.1.5	If Sections are to be used, Not Applicable
6.	1.1.6	The site of the works is in Tabora Municipality
7.	1.5 (j)	Other documents forming part of the Contract are: a) Form of Agreement; b) Client's notification of award; c) Letter of acceptance; d) Negotiation Minutes; e) Contractor's Form of Bid; f)The Specific Conditions of Contract (SCC); g) The General Conditions of Contract (GCC), h) Technical Specifications; i) Employer's Requirement and Drawings (Drawings may be bound separately) j) Schedules (Bills of Quantities and Extras (additional works)☺ k) Special power of attorney;
8.	1.7	Number of Documents to be supplied by Contractor to the Project Manager shall be: Three Copies
9.	1.12	Exceptions to compliance with the applicable Law: Not Applicable
10.	1.13	Exceptions to compliance with the applicable tax laws: Not Applicable
11.	2.1	Time for right of access and possession of the site is 14 days after signing the Contract
12.	3.1 (d)	Time for a written response by the Project Manager is: 14 working days.

SCC	GCC Clause	Description
Clause		The performance security shall be in the form of a bank guarantee in
13.	4.2 & 8.6	the amount(s) of 10% of the Contract Sum. Not Applicable
14.	4.4	Exceptions or other requirements of sub-contracting: Not Applicable
15.	5.1	Period for notifying unforeseeable errors, faults and defects in the Employer's Requirements: 14 working days
16.	8.1	Works shall commence 14 Working days after signing of the Contract:
17.	8.6 & 14.15(b)	Liquidated damages for delay of the works is 0.1% of the Contract Sum per day.
18.	8.6	The maximum amount of liquidated damages for delay must be equivalent to the amount of the performance security 10% of Contract sum.
19.	14.2	The Employer shall pay the Advance Payment 15% of Contract sum within 28 days upon submission of an acceptable Insurance guarantee. Not Applicable
		The advance payment shall be repaid by deducting proportionate amounts from Interim payments or any percentage such that advance payment is fully recovered by the time that, 75% of value of works in contract is completed.
20.	14.3	The amount of retention is 10% of value of works of Interim Payment Certificate.
21.	14.3	Limit of retention shall be 5% of the Contract Sum.
22.	14.7	The currency of payment shall be Tanzanian Shillings (TZS)
23.	20.2	Appointing Authority of the DAP is: The National Construction Council of Tanzania (NCC)
24.	20.5(a) (ii)	Not Applicable

7. GENERAL CONDITIONS OF CONTRACT

	A. General Provisions
1.1 Definition	In these Conditions of Contract, (General Conditions and Special Conditions), the following words and expressions shall have the meanings stated. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise.
1.1.1 The Contract	"Contract" means the Contract entered between the Employer and the Contractor for design and construction of works.
	"Letter of Acceptance" means the letter of formal acceptance of the bid, signed by the Employer and communicated to the Contractor.
	"Form of Bid" means the document entitled Form of Bid, which was completed by the Contractor and includes the signed offer to the Employer for the works.
	"Employer's Requirement" means the document entitled Employer's Requirement, as included in the Contract, and any additions and modifications to the Employer's Requirement in accordance with the Contract. Such document specifies the Works.
	"Drawings" means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Employer in accordance with the Contract.
	"Schedules" means the document(s) entitled schedules, completed by the Contractor and submitted with the Form of Bid, as included in the Contract. Such document may include the Bill of Quantities, data, lists, and schedules of rates and/or prices.
	"Bid" means the Form of Bid and all other documents which the Contractor submitted with the Form of Bid, as included in the Contract.
	"Bill of Quantities" and "Day Work Schedule" and "Schedule of Payment Currencies" mean the documents so named (if any) which are comprised in the Schedules.
1.1.2 Parties and Persons	"Party" means the Employer or the Contractor, as the context requires.
,	"Employer" means the person named as Employer in the Special Conditions of Contracts (SCC) and the legal successors in title to

this person.

"Contractor" means the person(s) named as contractor in the Form of Bid accepted by the Employer and the legal successors in title to this person(s).

"Project Manager" means the person appointed by the Employer to act as the Project Manager for the purposes of the Contract and named in the SCC, or other person appointed from time to time by the Employer and notified to the Contractor under GCC 3.4 [Replacement of the Project Manager].

"Contractor's Representative" means the person named by the Contractor in the Contract or appointed from time to time by the Contractor under GCC 4.3 [Contractor's Representative], who acts on behalf of the Contractor.

"Employer's Personnel" means the Project Manager, the assistants referred to in GCC 3.2 [Delegation by the Project Manager] and all other staff, labour and other employees of the Project Manager and of the Employer; and any other personnel notified to the Contractor, by the Employer or the Project Manager, as Employer's Personnel.

"Contractor's Personnel" means the Contractor's Representative and all personnel whom the Contractor utilises on Site, who may include the staff, labour and other employees of the Contractor and of each Subcontractor; and any other personnel assisting the Contractor in the execution of the Works.

"Subcontractor" means any person named in the Contract as a subcontractor, or any person appointed as a subcontractor, for a part of the Works; and the legal successors in title to each of these persons.

"Dispute Adjudication Panel (DAP)" means the person or three persons appointed under GCC 20.3 [Appointment of the Dispute Board] or GCC 20.3 [Failure to Agree on the Composition of the Dispute Board]

1.1.3 Dates, Tests, Periods and Completion

"Base Date" means the date 28 days prior to the latest date for submission of the Bid.

"Commencement Date" means the date notified under GCC 8.1 [Commencement of Works].

"Time for Completion" means the time for completing the Works or a Section (as the case may be) under GCC 8.2 [Time for Completion], as stated in the SCC (with any extension under GCC 8.4 [Extension of Time for Completion]), calculated from the Commencement Date.

"Tests on Completion" means the tests which are specified in the Contract or agreed by both Parties or instructed as a Variation, and which are carried out under GCC 9 [Tests on Completion] before the Works or a Section (as the case may be) are taken over by the Employer.

"Taking-Over Certificate" means a certificate issued under GCC

10 [Employer's Taking Over].

"Tests after Completion" means the tests (if any) which are specified in the Contract and which are carried out in accordance with the Employer's Requirement after the Works or a Section (as

the case may be) are taken over by the Employer.

"Defects Liability Period" means the period for notifying defects in the Works or a Section (as the case may be) under GCC 11.1 [Completion of Outstanding Work and Remedying Defects], which extends over twelve months except if otherwise stated in the SCC (with any extension under GCC 11.3 [Extension of Defects Liability Period]), calculated from the date on which the Works or Section is completed as certified under GCC 10.1 [Taking Over of the Works and Sections].

"Performance Certificate" means the certificate issued under

GCC 11.9 [Performance Certificate].

"day" means a calendar day and "year" means 365 days.

1.1.4 Money and Payments

"Accepted Contract Amount" means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.

"Contract Price" means the price defined in GCC 14.1 [The Contract Price], and includes adjustments in accordance with the Contract.

"Cost" means all expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, but does not include profit.

"Final Payment Certificate" means the payment certificate issued under GCC 14.13 [Issue of Final Payment Certificate].

"Final Statement" means the statement defined in GCC 14.11

including vehicles purchased for the Employer and relating to the construction or operation of the Works. "Section" means a part of the Works specified in the SCC as a Section (if any). "Temporary Works" means all temporary works of every kind (other than Contractor's Equipment) required on Site for the execution and completion of the Permanent Works and the remedying of any defects. "Works" mean the Permanent Works and the Temporary Works, or either of them as appropriate. "Contractor's Documents" means the calculations, computer 1.1.6 Other programs and other software, drawings, manuals, models and **Definitions** other documents of a technical nature (if any) supplied by the Contractor under the Contract. "Country" means the country in which the Site (or most of it) is located, where the Permanent Works are to be executed. "Employer's Equipment" means the apparatus, machinery and vehicles (if any) made available by the Employer for the use of the Contractor in the execution of the Works, as stated in the Employer's Requirement; but does not include Plant which has not been taken over by the Employer. "Force Majeure" is defined in GCC 19 [Force Majeure]. "Laws" means all national (or state) legislation, statutes, ordinances and other laws, and regulations and by-laws of any legally constituted public authority. "Performance Security" means the security (or securities, if any) under GCC 4.2 [Performance Security]. "Site" means the place stated in the SCC where the Permanent Works are to be executed including storage and working areas and to which Plant and Materials are to be delivered and any other places as may be specified in the SCC as forming part of the Site. "Unforeseeable" means not reasonably foreseeable by an experienced contractor by the Base Date. "Variation" means any change to the Works, which is instructed or approved as a variation under GCC 13 [Variations and

		Adjustments].	
		In the Contract, except where the context requires otherwise:	
		(a) words indicating one gender include all genders;	
		(b) words indicating the singular also include the plural and words indicating the plural also include the singular;	
		(c) provisions including the word "agree," "agreed" or "agreement" require the agreement to be record in writing;	
		(d) "written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record; and	
		(e) the word "tender" is synonymous with "bid", and "tenderer" with "bidder" and the words "tender documents" with "bidding documents"	
		The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions.	
1.30	Communications	Communications between parties that are referred to in the Conditions shall be effective only when in writing . A notice shall be effective only when it is received by the concerned party. The language for communications shall be English	
1.4	Governing	The governing language of the Contract shall be English.	
	Language and Law	The Contract shall be governed by the laws of Tanzania	
1.5	Priority of Documents	The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:	
		a) Form of Agreement;	
		b) Client's Notification of Award	
		c) The Letter of Acceptance;	
		d) Minutes of negotiations and addenda (if any);	
		e) The Form of Bid;	
		f) The Special Conditions of Contract;	
		g) The General Conditions of Contract; b) The Employer's Requirements and Drawings (if any):	
		h) The Employer's Requirements and Drawings (if any);	

		i) The Calcadaless
		i) The Schedules;
		j) Contractor's Proposal; and
		k) any other documents listed in the SCC forming part of the
		Contract.
		l) Special Power of Attorney
		If an ambiguity or discrepancy is found in the documents, the Project Manager shall issue any necessary clarification or instruction.
1.6 Assign	nment	The Contractor shall not assign the whole or any part of the Contract or any benefit or interest in or under the Contract. However, the contractor:
		(a) may assign the whole or any part with the prior consent in writing of the Employer; and
		may, as security in favour of a bank or financial institution, assign its right to any moneys due, or to become due, under the Contract.
1.7 Care a Supp Docu		Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over by the Employer. Unless otherwise stated in the Contract, the Contractor shall supply to the Project Manager number of copies of Contractor's Documents stated in the SCC.
		The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Employer's Requirements, the Contractor's Documents including Drawings and approved Variations and other communications given under the Contract. Authorized personnel of the Employer shall have the right to access to the aforementioned documents at all reasonable times.
		If a Party becomes aware of an error or defect of technical nature in a document which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect.
1.8 Error in Employ Requir	SEAN CREMENTO	If the Contractor suffers delay and/or incurs Cost as a result of an error in the Employer requirements, and experienced Contractor exercising due care would not have discovered the error when scrutinizing the employer's requirements under GCC 5.1 (General Design Obligations), the contractor shall give notice to the Project Manager and may be entitled subject to GCC 20.1 (contractor's

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		claims) to an extension of time and associated costs (if any) for such delay, if completion is or will be delayed, under GCC 8.4 [Extension of Time for Completion].
		After receiving this further notice, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine these matters.
	1.9 Employer's Use of Contractor's Documents	The Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor.
		The Contractor shall be deemed (by signing the Contract) to give to the Employer a non-terminable transferable non-exclusive royalty-free licence to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This licence shall:
İ		(a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
		(b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
Ì		(c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by the Contract, including replacements of any computers supplied by the Contractor.
		The Contractor's Documents and other design documents made by the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Employer for purposes other than those permitted under this GCC.
	1.10 Contractor's Use of Employer's Documents	The Employer shall retain the copyright and other intellectual property rights in the Employer's requirements including Drawings and other documents made by (or on behalf of) the Employer. The Contractor may, at his cost, copy, use, and obtain communication of these documents for the purposes of the Contract. They shall not, without the Employer's consent, be

	copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the Contract.
1.11 Confidential Details	The Contractor shall disclose all such confidential and other information as may be reasonably required by the Employer in order to verify the Contractor's compliance with the Contract and allow its proper implementation.
1.12 Compliance with Laws	The Contractor shall, in performing the Contract, comply with applicable Laws. Unless otherwise stated in the SCC: (a) the Employer shall have obtained (or shall obtain) the planning, zoning, or similar permission for the Permanent Works, and any other permissions described in the Employer's Requirement as having been (or to be) obtained by the Employer; and the Employer shall indemnify and hold the Contractor harmless against and from the consequences of any failure to do so; and (b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licenses and approvals, as required by the Laws in relation to the design, execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Employer harmless against and from the consequences of any failure to do so.
1.13 Taxes and Duties	The Contractor, Sub-contractors and Personnel shall pay such taxes, duties, fees and other impositions as may be levied under the Applicable Law unless otherwise stated in the SCC.
1.14 Joint and Several Liability	 If the Contractor constitutes a joint venture, consortium, association of firms or other unincorporated grouping of two or more persons: (a) these persons shall be deemed to be jointly and severally liable to the Employer for the performance of the Contract; (b) these persons shall notify the Employer of their leader who shall have authority to bind the Contractor and each of these persons; and the Contractor shall not alter its composition or legal status without the prior consent of the Employer.
1.15 Instructions, Inspections and Audits	The Employer's personnel shall at all reasonable times during construction of the Work be entitled to examine, inspect, measure and test the materials and workmanship, and to check the

progress of the construction.

If the Project Manager instructs the contractor to carry out a test not specified in the Employer's Requirement to check whether any work has a defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no defect, the test shall be a Compensation Event.

The Contractor shall permit the Funding Source named in the SCC to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Funding Source, if so required by the Funding Source.

B. The Employer

2.1 Right of Access to the Site

The Employer shall give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in the SCC. The right and possession may not be exclusive to the Contractor. If, under the Contract, the Employer is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Employer shall do so in the time and manner stated in the Employer's requirements. However, the Employer may withhold any such right or possession until the Performance Security has been received.

If no such time is stated in the SCC, the Employer shall give the Contractor right of access to, and possession of, the Site within such times as required to enable the Contractor to proceed without disruption in accordance with the programme submitted under GCC 8.3 [Programme].

If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Employer to give any such right or possession within such time, the Contractor shall give notice to the Project Manager and may be entitled subject to GCC 20.1 [Contractor's Claims] to an extension of time and associated costs (if any) for such delay, if completion is or will be delayed, under GCC 8.4 [Extension of Time for Completion], and

After receiving this notice, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine these matters.

However, if and to the extent that the Employer's failure was caused by any error or delay by the Contractor, including an error

	in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time and any associated costs.
2.2 Permits, Licences or Approvals	The Employer shall provide, at the request of the Contractor, such reasonable assistance as to allow the Contractor to obtain properly: (a) copies of the Laws of the Country which are relevant to the Contract but are not readily available, and (b) any permits, licences or approvals required by the Laws of the Country: (i) which the Contractor is required to obtain under GCC 1.12 [Compliance with Laws], (ii) for the delivery of Goods, including clearance through customs, and for the export of Contractor's Equipment when it is removed from the Site.
2.3 Employer's Personnel	 The Employer shall be responsible for ensuring that the Employer's Personnel and the Employer's other contractors on the Site: (a) co-operate with the Contractor's efforts under GCC 4.6 [Cooperation], and take actions similar to those which the Contractor is required to take under sub-paragraphs (a), (b) and (c) of GCC 4.8 [Safety Procedures] and under GCC 4.18 [Protection of the Environment].
2.4 Suspension of Financing	If the Government has notified the Employer that the Government has suspended funds, which finances in whole or in part the execution of the Works, the Employer shall give notice of such suspension to the Contractor with detailed particulars, including the date of such notification, with a copy to the Project Manager, within 7 days of the Employer having received the suspension notification from the Government. In the event that the source of financing is suspended to the Employer, from which part of the payments to the Contractor are being made: (a) The Employer shall notify the Contractor of such suspension within Seven (7) days of having received the financing agency's suspension notice. (b) After the Notice has been issued and within fourteen (14) working days, the Parties shall mutually agree on the future events

		of the Contract		
2.5	Employer's Claims	If the Employer considers himself to be entitled to any payment under any Clause of these Conditions or otherwise in connection with the Contract, and/or to any extension of the Defects Liability Period, the Employer or the Project Manager shall give notice and particulars to the Contractor. However, notice is not required for payments due under GCC 4.19 [Electricity, Water and Gas], under GCC 4.20 [Employer's Equipment and Free-Issue Material], or for other services requested by the Contractor.		
		The notice shall be given as soon as practicable and no longer than 28 days after the Employer became aware, or should have become aware, of the event or circumstances giving rise to the claim. A notice relating to any extension of the Defects Liability Period shall be given before the expiry of such period.		
		The particulars shall specify the Clause or other basis of the claim, and shall include substantiation of the amount and/or extension to which the Employer considers himself to be entitled in connection with the Contract. The Project Manager shall then proceed in accordance with GCC 3.5 [Determinations] to agree or determine (i) the amount (if any) which the Employer is entitled to be paid by the Contractor, and/or (ii) the extension (if any) of the Defects Liability Period in accordance with GCC 11.3 [Extension of Defects Liability Period].		
		This amount may be included as a deduction in the Contract Price and Payment Certificates. The Employer shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this GCC.		
	C. The Project Manager			
3.1	Project Manager's Appointment, Duties and Authority	The Employer shall appoint the Project Manager who shall carry out the duties assigned to him in the Contract. The Project Manager shall be an independent legal entity or firm duly registered by relevant professional bodies in Tanzania and contracted by the Employer. The Project Manager's staff shall include suitably qualified Architects/Engineers and other professionals who are competent to carry out these duties.		
		The Project Manager shall have no authority to amend the Contract without approval of the Employer.		

The Project Manager may exercise the authority attributable to the Project Manager as specified in or necessarily to be implied from the Contract. Notwithstanding the provisions of this Contract, if the Project Manager is required to obtain the approval of the Employer before exercising a specified authority, the requirements shall be as **stated in the SCC**. The Employer shall promptly inform the Contractor of any change to the authority attributed to the Project Manager.

However, whenever the Project Manager exercises a specified authority for which the Employer's approval is required, then (for the purposes of the Contract) the Project Manager shall seek and obtain a written approval of the Employer.

Except as otherwise stated in these Conditions:

- (a) whenever carrying out duties or exercising authority, specified in or implied by the Contract, the Project Manager shall be deemed to act for the Employer;
- (b) the Project Manager has no authority to relieve either Party of any duties, obligations or responsibilities under the Contract; and
- (b) any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by the Project Manager (including absence of disapproval) shall not relieve the Contractor from any responsibility he has under the Contract, including responsibility for errors, omissions, discrepancies and non-compliances.
- (c) Any act by the Project Manager in response to a Contractor's request, except otherwise expressly specified, shall be notified in writing to the Contractor within the period stated in the SCC. Provided that such time shall not exceed 28 days from receipt of the request.

The following provisions shall apply:

The Project Manager shall obtain the specific approval of the Employer before taking action under the following GCCs of these Conditions:

(a) GCC 4.12 [Unforeseeable Physical Conditions]: Agreeing or determining an extension of time and/or additional cost.

- (b) GCC 13.1 [Right to Vary]: Instructing a Variation, except;
 - (i) in an emergency situation as determined by the Project Manager, or
 - (ii) if such a Variation would not increase the total Contract Amount
- (c) GCC 13.3 [Variation Procedure]: Approving a proposal for Variation submitted by the Contractor in accordance with GCC 13.1 or 13.2.
- (d) GCC 13.4 [Payment in Applicable Currencies]: Specifying the amount payable in each of the applicable currencies.
- (e) Notwithstanding the obligation, as set out above, to obtain approval, if, in the opinion of the Project Manager, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibility under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Project Manager, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of approval of the Employer, with any such instruction of the Project Manager. The Project Manager shall determine an addition to the Contract Price, in respect of such instruction, in accordance with GCC 13 [Variations and Adjustments] and shall notify the Contractor accordingly, with a copy to the Employer.

3.2 Delegation by the Project Manager

The Project Manager may from time to time assign duties and delegate authority to assistants, and may also revoke such assignment or delegation. These assistants may include a resident Architect/Engineer and/or independent inspectors appointed to inspect and/or test items of Plant and/or Materials. The assignment, delegation or revocation shall be in writing and shall not take effect until copies have been received by both Parties.

However, unless otherwise agreed by both Parties, the Project Manager shall not delegate the authority to determine any matter in accordance with GCC 3.5 [Determinations].

Assistants shall be suitably qualified persons, who are competent to carry out these duties and exercise this authority, and who are fluent in the language for communications defined in GCC 1.4 [Law and Language].

Each assistant, to whom duties have been assigned or authority has been delegated, shall only be authorised to issue instructions to the Contractor to the extent defined by the delegation. Any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by an assistant, in accordance with the delegation, shall have the same effect as though the act had been an act of the Project Manager. However:

(a) any failure to disapprove any work, Plant or Materials shall not constitute approval, and shall therefore not prejudice the right of the Project Manager to reject the work, Plant or Materials;

if the Contractor questions any determination or instruction of an assistant, the Contractor may refer the matter to the Project Manager, who shall promptly confirm, reverse or vary the determination or instruction.

3.3 Instructions of the Project Manager

The Project Manager may issue to the Contractor (at any time) instructions and additional or modified Drawings which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract. The Contractor shall only take instructions from the Project Manager, or from an assistant to whom the appropriate authority has been delegated under this Clause. If an instruction constitutes a Variation, GCC 13 [Variations and Adjustments] shall apply.

The Contractor shall comply with the instructions given by the Project Manager or delegated assistant, on any matter related to the Contract. Whenever practicable, their instructions shall be given in writing. If the Project Manager or a delegated assistant:

- (a) gives an oral instruction,
- (b) receives a written confirmation of the instruction, from (or on behalf of) the Contractor, within two working days after giving the instruction, and
- does not reply by issuing a written rejection and/or instruction within two working days after receiving the confirmation,

then the confirmation shall constitute the written instruction of the Project Manager or delegated assistant (as the case may be).

3.4 Replacement of the Project Manager	Notwithstanding GCC 3.1, if the Employer intends to replace the Project Manager, the Employer shall, not less than 21 days before the intended date of replacement, give notice to the Contractor of the name, address and relevant experience of the intended replacement Project Manager. If the Contractor considers the intended replacement Project Manager to be unsuitable, he has the right to raise reasonable objection against him by notice to the Employer, with supporting particulars, and the Employer shall give consideration to this objection.	
3.5 Determinations	Whenever these Conditions provide that the Project Manager shall proceed in accordance with this GCC 3.5 to agree or determine any matter, the Project Manager shall consult with each Party in an endeavour to reach agreement. If agreement is not achieved, the Project Manager shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances.	
	The Project Manager shall give notice to both Parties of each agreement or determination, with supporting particulars within 14 working days from the receipt of the corresponding claim or request except when otherwise specified. Each Party shall give effect to each agreement or determination unless and until revised under GCC 20 [Claims, Disputes and Arbitration].	
D. The Contractor		
4.1 Contractor's General Obligations	The Contractor shall design, execute and complete the Works in accordance with the Contract and with the Project Manager's instructions, and shall remedy any defects in the Works.	
	The Contractor shall provide the Plant and Contractor's Documents specified in the Contract, and all Contractor's Personnel, Goods, consumables and other things and services, whether of a temporary or permanent nature, required in and for this design, execution, completion and remedying of defects.	
	The works shall include any work which is necessary to satisfy the Employer's Requirements, contractor's proposal and Schedules, or is implied by the contract, and all works which (although not mentioned in the contract) are necessary for stability or for the completion, or safe and proper operation, of the works.	
	The Contractor shall be responsible for the adequacy, stability and	

safety of all Site operations and of all methods of construction.

The Contractor shall, whenever required by the Project Manager, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Project Manager.

4.2

Performan ce Security

The Contractor shall obtain (at his cost) a Performance Security for proper performance, in the form, amount and currencies stated in the SCC.

The Contractor shall deliver the Performance Security to the Employer within 21 working days after receiving the Letter of Acceptance, and shall send a copy to the Project Manager. The Performance Security shall be issued by an entity and from within a country (or other jurisdiction) approved by the Employer, and shall be in the form annexed to the SCC or in another form approved by the Employer.

The Contractor shall ensure that the Performance Security is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects. If the terms of the Performance Security specify its expiry date, and the Contractor has not become entitled to receive the Performance Certificate by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the Performance Security until the Works have been completed and any defects have been remedied.

The Employer shall not make a claim under the Performance Security, except for amounts to which the Employer is entitled under the Contract in the event of:

- failure by the Contractor to extend the validity of the performance security as described in the preceding paragraph, in which event the Employer may claim the full amount of the performance security;
- b) failure by the Contractor to pay the Employer an amount due, as either agreed by the Contractor or determined under GCC 2.5 [Employer's Claims] or GCC 20 [Claims, Disputes and Arbitration], within 42 days after this agreement or determination,
- c) failure by the Contractor to remedy a default within 42 days

after receiving the Employer's notice requiring the default to be remedied, or

d) Circumstances which entitle the Employer to termination under GCC 15.2 [Termination by Employer], irrespective of whether notice of termination has been given.

The Employer shall indemnify and hold the Contractor harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from a claim under the Performance Security to the extent to which the Employer was not entitled to make the claim.

The Employer shall return the Performance Security to the Contractor within 21 days after receiving a copy of the Performance Certificate.

4.3 Contractor's Representat

The Contractor shall appoint the Contractor's Representative and shall give him all authority necessary to act on the Contractor's behalf under the Contract.

Unless the Contractor's Representative is named in the Contract, the Contractor shall, prior to the Commencement Date, submit to the Project Manager for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable person for such appointment.

The Contractor shall not, without the prior consent of the Project Manager, revoke the appointment of the Contractor's Representative or appoint a replacement.

The whole time of the Contractor's Representative shall be given to directing the Contractor's performance of the Contract. If the Contractor's Representative is to be temporarily absent from the Site during the execution of the Works, a suitable replacement person shall be appointed, subject to the Project Manager's prior consent, and the Project Manager shall be notified accordingly.

The Contractor's Representative shall, on behalf of the Contractor, receive instructions under GCC 3.3 [Instructions of the Project Manager].

The Contractor's Representative may delegate any powers,

	functions and authority to any competent person, and may at any time revoke the delegation. Any delegation or revocation shall not take effect until the Project Manager has received prior notice signed by the Contractor's Representative, naming the person and specifying the powers, functions and authority being delegated or revoked. The Contractor's Representative shall be fluent in the language for communications defined in GCC 1.4 [Law and Language].
4.4 Subcontractors	The Contractor shall not subcontract the whole of the Works. The Contractor shall be responsible for the acts or defaults of any Subcontractor, his agents or employees, as if they were the acts or defaults of the Contractor. Unless otherwise stated in the SCC: (a) the Contractor shall not be required to obtain consent to suppliers of Materials, or to a subcontract for which the Subcontractor is named in the Contract; (b) the prior consent of the Project Manager shall be obtained to other proposed Subcontractors; the Contractor shall give the Project Manager not less than 28 days notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site; and
4.5 Nominated Subcontractor s	In this GCC, "nominated Subcontractor" means a Subcontractor whom the Project Manager , under GCC 13 [Variations and Adjustments], instructs the Contractor to employ as a Subcontractor. The Contractor shall not be under any obligation to employ a nominated Subcontractor against whom the Contractor raises reasonable objection by notice to the Project Manager as soon as practicable, with supporting particulars.
4.6 Co- operation	The Contractor shall, as specified in the Contract or as instructed by the Project Manager, allow appropriate opportunities for carrying out work to: (a) the Employer's Personnel, (b) any other contractors employed by the Employer, and (c) the personnel of any legally constituted public authorities, who may be employed in the execution on or near the Site of any work not included in the Contract. Any such instruction may constitute a Variation if and to the extent that it causes the Contractor to suffer delays and/or to incur

		Unforeseeable Cost. Services for these personnel and other contractors may include the use of Contractor's Equipment, Temporary Works or access arrangements which are the responsibility of the Contractor.
		The Contractor shall be responsible for his construction activities on the Site, and shall co-ordinate his own activities with those of other contractors to the extent (if any) specified in the Employer's Requirements.
	0	If, under the Contract, the Employer is required to give to the Contractor possession of any foundation, structure, plant or means of access in accordance with Contractor's Documents, the Contractor shall submit such documents to the Project Manager in the time and manner stated in the Employer's Requirements.
4.7	Setting Out	The Contractor shall set out the Works in relation to original points, lines and levels of reference specified in the Contract or notified by the Project Manager. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works.
		The Employer shall be responsible for any errors in these specified or notified items of reference, but the Contractor shall use reasonable efforts to verify their accuracy before they are used.
430		If the Contractor suffers delay and/or incurs cost from executing work which was necessitated by an error in these items of reference, and an experienced contractor could not reasonably have discovered such error and avoided this delay and/or cost, the Contractor shall give notice to the Project Manager and shall be entitled subject to GCC 20.1 [Contractor's Claims] to an extension of time and associated costs (if any) for such delay, if completion is or will be delayed, under GCC 8.4 [Extension of Time for Completion].
		After receiving this further notice, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine these matters.
4.8	Safety Procedures	The Contractor shall:
		(a) comply with all applicable safety regulations,
		(b) take care for the safety of all persons entitled to be on the Site,
		(c) use reasonable efforts to keep the Site and Works clear of
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	unnecessary obstruction so as to avoid danger to these persons,
	(d) provide fencing, lighting, guarding and watching of the Works until completion and taking over under GCC 10 [Employer's Taking Over], and
	provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land.
4.9 Quality Assurance	The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract. The system shall be in accordance with the details stated in the Contract. The Project Manager shall be entitled to audit any aspect of the system.
	Details of all procedures and compliance documents shall be submitted to the Project Manager for information before each design and execution stage is commenced. When any document of a technical nature is issued to the Project Manager, evidence of the prior approval by the Contractor himself shall be apparent on the document itself.
	Compliance with the quality assurance system shall not relieve the Contractor of any of his duties, obligations or responsibilities under the Contract.
4.10 Site Data	The Employer shall have made available to the Contractor for his information, prior to the Base Date, all relevant data in the Employer's possession on sub-surface and hydrological conditions at the Site, including environmental aspects. The Employer shall similarly make available to the Contractor all such data which come into the Employer's possession after the Base Date. The Contractor shall be responsible for interpreting all such data.
	To the extent which was practicable (taking account of cost and time), the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works. To the same extent, the Contractor shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):
	the residence as to the residence, should be a second or

		conditions,
		(b) the hydrological and climatic conditions,
		(c) the extent and nature of the work and Goods necessary for the execution and completion of the Works and the remedying of any defects,
		(d) the Laws, procedures and labour practices of the Country, and
		the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.
4.11	Sufficiency of the	The Contractor shall be deemed to:
	Accepted Contract	(a) have satisfied himself as to the correctness and sufficiency of the Accepted Contract Amount, and
	Amount	(b) have based the Accepted Contract Amount on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters referred to in GCC 4.10 [Site Data] and any further data relevant to the Contractor's design.
		Unless otherwise stated in the Contract, the Accepted Contract Amount covers all the Contractor's obligations under the Contract (including those under Provisional Sums, if any) and all things necessary for the proper design, execution and completion of the Works and the remedying of any defects.
4.12	Unforesee able Physical Conditions	In this GCC, "physical conditions" means natural physical conditions and man-made and other physical obstructions and pollutants, which the Contractor encounters at the Site when executing the Works, including sub-surface and hydrological conditions but excluding climatic conditions.
		If the Contractor encounters adverse physical conditions which he considers to have been Unforeseeable, the Contractor shall give notice to the Project Manager as soon as practicable.
		This notice shall describe the physical conditions, so that they can be inspected by the Project Manager, and shall set out the reasons why the Contractor considers them to be Unforeseeable. The Contractor shall continue executing the Works, using such proper and reasonable measures as are appropriate for the physical conditions, and shall comply with any instructions which the Project Manager may give. If an instruction constitutes a Variation, GCC 13

[Variations and Adjustments] shall apply. If and to the extent that the Contractor encounters physical conditions which are Unforeseeable, gives such a notice, and suffers delay and/or incurs Cost due to these conditions, the Contractor may be entitled subject to notice under GCC 20.1 [Contractor's Claims] to an extension of time and associated costs (if any) for any such delay, if completion is or will be delayed, under GCC 8.4 [Extension of Time for Completion]. After receiving this further notice, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine these matters. However, before additional Cost is finally agreed or determined under sub-paragraph (ii), the Project Manager may also review whether other physical conditions in similar parts of the Works (if any) were more favourable than could reasonably have been foreseen when the Contractor submitted the Tender. If and to the extent that these more favourable conditions were encountered, the Project Manager may proceed in accordance with GCC 3.5 [Determinations] to agree or determine the reductions in Cost which were due to these conditions, which may be included (as deductions) in the Contract Price and Payment Certificates. However, the net effect of all adjustments under sub-paragraph (b) and all these reductions, for all the physical conditions encountered in similar parts of the Works, shall not result in a net reduction in the Contract Price. The Project Manager may take account of any evidence of the physical conditions foreseen by the Contractor when submitting the Tender, which may be made available by the Contractor, but shall not be bound by any such evidence. The Contractor shall bear all costs and charges for special and/or 4.13 Rights of temporary rights-of-way which he may require, including those for access Way and to the Site. The Contractor shall also obtain, at his risk and cost, any **Facilities** additional facilities outside the Site which he may require for the purposes of the Works. The Contractor shall not interfere unnecessarily or improperly with: 4.14 Avoidance the convenience of the public, or (a) Interference

the access to and use and occupation of all roads and footpaths, irrespective of whether they are public or in the

			possession of the Employer or of others.
		agaii fees	Contractor shall indemnify and hold the Employer harmless nst and from all damages, losses and expenses (including legal and expenses) resulting from any such unnecessary or coper interference.
4.15 Acces Route		suita The bridg Cont	Contractor shall be deemed to have been satisfied as to the bility and availability of access routes to the Site at Base Date. Contractor shall use reasonable efforts to prevent any road or ge from being damaged by the Contractor's traffic or by the cractor's Personnel. These efforts shall include the proper use of opriate vehicles and routes.
		Exce	pt as otherwise stated in these Conditions:
		(a)	the Contractor shall (as between the Parties) be responsible for any maintenance which may be required for his use of access routes;
		(b)	the Contractor shall provide all necessary signs or directions along access routes, and shall obtain any permission which may be required from the relevant authorities for his use of routes, signs and directions;
		(c)	the Employer shall not be responsible for any claims which may arise from the use or otherwise of any access route;
		(d)	the Employer does not guarantee the suitability or availability of particular access routes; and
			es due to non-suitability or non-availability, for the use required ne Contractor, of access routes shall be borne by the Contractor.
4.16 Trans		Unle	ess otherwise stated in the SCC :
Good	ls	(a)	the Contractor shall give the Project Manager not less than 21 days notice of the date on which any Plant or a major item of other Goods will be delivered to the Site;
		(b)	the Contractor shall be responsible for packing, loading transporting, receiving, unloading, storing and protecting al Goods and other things required for the Works; and
Tv:		agai	Contractor shall indemnify and hold the Employer harmless nst and from all damages, losses and expenses (including lega and expenses) resulting from the transport of Goods, and shal

	negotiate and pay all claims arising from their transport.
4.17	The Contractor shall be responsible for all Contractor's Equipment. When brought on to the Site, Contractor's Equipment shall be deemed to be exclusively intended for the execution of the Works. The Contractor shall not remove from the Site any major items of Contractor's Equipment without the consent of the Project Manager. However, consent shall not be required for vehicles transporting Goods or Contractor's Personnel off Site.
4.18 Protection of the Environmen t	The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.
	The Contractor shall ensure that emissions, surface discharges and effluent from the Contractor's activities shall not exceed the values stated in the Employer's Requirement or prescribed by applicable Laws.
4.19 Electricity, Water and Gas	The Contractor shall, except as stated below, be responsible for the provision of all power, water and other services he may require for his construction activities and to the extent defined in the Employer's Requirements, for the tests.
	The Contractor shall be entitled to use for the purposes of the Works such supplies of electricity, water, gas and other services as may be available on the Site and of which details and prices are given in the Employer's Requirement. The Contractor shall, at his risk and cost, provide any apparatus necessary for his use of these services and for measuring the quantities consumed.
	The quantities consumed and the amounts due (at these prices) for such services shall be agreed or determined by the Project Manager in accordance with GCC 2.5 [Employer's Claims] and GCC 3.5 [Determinations]. The Contractor shall pay these amounts to the Employer.
4.20 Employer' s Equipment and Free-Issue Materials	The Employer shall make the Employer's Equipment (if any) available for the use of the Contractor in the execution of the Works in accordance with the details, arrangements and prices stated in the Schedule of Prices. Unless otherwise stated in the Employer's Requirement:
	(a) the Employer shall be responsible for the Employer's

Equipment, except that

(b) the Contractor shall be responsible for each item of Employer's Equipment whilst any of the Contractor's Personnel is operating it, driving it, directing it or in possession or control of it.

The appropriate quantities and the amounts due (at such stated prices) for the use of Employer's Equipment shall be agreed or determined by the Project Manager in accordance with GCC 2.5 [Employer's Claims] and GCC 3.5 [Determinations]. The Contractor shall pay these amounts to the Employer.

The Employer shall supply, free of charge, the "free-issue materials" (if any) in accordance with the details stated in the Employer's Requirement. The Employer shall, at his risk and cost, provide these materials at the time and place specified in the Contract. The Contractor shall then visually inspect them, and shall promptly give notice to the Project Manager of any shortage, defect or default in these materials. Unless otherwise agreed by both Parties, the Employer shall immediately rectify the notified shortage, defect or default.

After this visual inspection, the free-issue materials shall come under the care, custody and control of the Contractor. The Contractor's obligations of inspection, care, custody and control shall not relieve the Employer of liability for any shortage, defect or default not apparent from a visual inspection.

4.21 Progress Reports

Unless otherwise stated in the SCC, monthly progress reports shall be prepared by the Contractor and submitted to the Project Manager in six copies. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 working days after the last day of the period to which it relates.

Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.

Each report shall include:

- (a) charts and detailed descriptions of progress, including each stage of design (if any), Contractor's Documents, procurement, manufacture, delivery to Site, construction, erection and testing; and including these stages for work by each nominated Subcontractor (as defined in GCC 4.5 [Nominated Subcontractors]),
- (b) photographs showing the status of manufacture and of progress on the Site;

for the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of:

- (i) commencement of manufacture,
- (ii) Contractor's inspections,
- (iii) tests, and
- (iv) shipment and arrival at the Site;
- (c) the details described in GCC 6.10 [Records of Contractor's Personnel and Equipment];
- (d) copies of quality assurance documents, test results and certificates of Materials;
- (e) list of notices given under GCC 2.5 [Employer's Claims] and notices given under GCC 20.1 [Contractor's Claims];
- (f) safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and
- (g) comparisons of actual and planned progress, with details of any events or circumstances which may jeopardise the

	completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays.
4.22 Security of	Unless otherwise stated in the SCC:
the Site	(a) The Contractor shall be responsible for security of the site;
	(b) the Contractor shall be responsible for keeping unauthorised persons off the Site; and
	authorised persons shall be limited to the Contractor's Personnel and the Employer's Personnel; and to any other personnel notified to the Contractor, by the Employer or the Project Manager, as authorised personnel of the Employer's other contractors on the Site.
4.23 Contractor's Operations on Site	The Contractor shall confine his operations to the Site, and to any additional areas which may be obtained by the Contractor and agreed by the Project Manager as additional working areas. The Contractor shall take all necessary precautions to keep Contractor's Equipment and Contractor's Personnel within the Site and these additional areas, and to keep them off adjacent land.
	During the execution of the Works, the Contractor shall keep the Site free from all unnecessary obstruction, and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish and Temporary Works which are no longer required.
	Upon the issue of a Taking-Over Certificate, the Contractor shall clear away and remove, from that part of the Site and Works to which the Taking-Over Certificate refers, all Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works. The Contractor shall leave that part of the Site and the Works in a clean and safe condition. However, the Contractor may retain on Site, during the Defects Liability Period, such Goods as are required for the Contractor to fulfil obligations under the Contract.
4.24 Fossils	All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the Site shall, as between the Employer and the Contractor, be the absolute property of the Employer and the Contractor shall take reasonable precautions to prevent his workers or any other persons from removing or damaging any such article or thing 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 as to the disposal of the same.

The Contractor shall, upon discovery of any such finding, promptly give notice to the Project Manager, who shall issue instructions for dealing with it. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice to the Project Manager and shall be entitled subject to GCC 20.1 [Contractor's Claims] to an extension of time and any associated costs (if any) for such delay, if completion is or will be delayed, under GCC 8.4 [Extension of Time for Completion].

After receiving this further notice, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine these matters.

E. Design

The Contractor shall carry out, and be responsible for, the design of the Works. Design shall be prepared by qualified designers who are Architects/engineers or other professionals who comply with the criteria (if any) stated in the Employer's Requirements. Unless otherwise stated in the Contract, the Contractor shall submit to the Project Manager for consent the name and particulars of each proposed designer and design Subcontractor.

The Contractor warrants that he, his designers and design design. The Contractors have the experience and capability necessary for the available to attend discussions with the Project Manager at all reasonable times, until the expiry date of the relevant Defects

Upon receiving notice under GCC 8.1 [Commencement of Works], the Contractor shall scrutinise the Employer's Requirements (including design criteria and calculations, if any) and the items of reference mentioned in GCC 4.7 [Setting Out]. Within the period stated in the Appendix to Tender, calculated from the Commencement Date, the Contractor shall give notice to the Project Commencement Date, the Contractor shall give notice to the Project Manager of any error, fault or other defect found in the Employer's Requirements or these items of reference.

After receiving this notice, the Project Manager shall determine whether GCC 13 [Variation s and Adjustments] shall be applied, and shall give notice to the Contractor accordingly. If and to the extent

5.1 General Design Obligations

that (taking account of cost and time) an experienced contractor exercising due care would have discovered the error, fault or other defect when examining the Site and the Employer's Requirements before submitting the Tender, the Time for Completion shall not be extended and the Contract Price shall not be adjusted.

The Contractor's Documents shall comprise the technical documents specified in the Employer's Requirements, documents required to satisfy all regulatory approvals, and the documents described in GCC 5.7 [Operation and Maintenance Manuals]. Unless otherwise stated in the Employer's Requirements, the Contractor's Documents shall be written in the language for communications defined in GCC 1.4 [Law and Language].

The Contractor shall prepare all Contractors' Documents, and shall also prepare any other documents necessary to instruct the Contractor's Personnel. The Employer's Personnel shall have the right to inspect the preparation of all these documents, wherever they are

to inspect the preparation of all these documents, wherever they as being prepared.

If the Employer's Requirements describe the Contractor's Documents which are to be submitted to the Project Manager for review and/or for approval, they shall be submitted accordingly, together with a notice as described below. In the following provisions of this GCC, (i) "review period" means the period required by the Project Manager for review and (if so specified) for approval, and (ii) "Contractor's Documents" exclude any documents which are not specified as being required to be submitted for review and/or for approval.

Unless otherwise stated in the Employer's Requirements, each review period shall not exceed 21 days, calculated from the date on which the Project Manager receives a Contractor's Document and the Contractor's notice. This notice shall state that the Contractor's Document is considered ready, both for review (and approval, if so specified) in accordance with this GCC and for use. The notice shall also state that the Contractor's Document complies with the Contract, or the extent to which it does not comply.

The Project Manager may, within the review period, give notice to the Contractor that a Contractor's Document fails (to the extent stated) to comply with the Contract. If a Contractor's Document so fails to comply, it shall be rectified, resubmitted and reviewed (and, if specified, approved) in accordance with this GCC, at the Contractor's specified, approved) in accordance with this GCC, at the Contractor's

5.2 Contractor's
Documents

cost.

For each part of the Works, and except to the extent that the prior approval or consent of the Project Manager shall have been obtained:

- (a) in the case of a Contractor's Document which has (as specified) been submitted for the Project Manager's approval:
 - the Project Manager shall give notice to the Contractor that the Contractor's Document is approved, with or without comments, or that it fails (to the extent stated) to comply with the Contract;
- ii) execution of such part of the Works shall not commence until the Project Manager has approved the Contractor's Document; and
- iii) the Project Manager shall be deemed to have approved the Contractor's Document upon the expiry of the review periods for all the Contractor's Documents which are relevant to the design and execution of such part, unless the Project Manager has previously notified otherwise in accordance with subparagraph (i);
- (b) execution of such part of the Works shall not commence prior to the expiry of the review periods for all the Contractor's Documents which are relevant to its design and execution;
- (c) execution of such part of the Works shall be in accordance with these reviewed (and, if specified, approved) Contractor's Documents; and
- (d) if the Contractor wishes to modify any design or document which has previously been submitted for review (and, if specified, approval), the Contractor shall immediately give notice to the Project Manager. Thereafter, the Contractor shall submit revised documents to the Project Manager in accordance with the above procedure.

If the Project Manager instructs that further Contractor's Documents are required, the Contractor shall prepare them promptly.

Any such approval or consent, or any review (under this GCC or otherwise), shall not relieve the Contractor from any obligation or

	responsibility.
5.3 Contractor's Undertaking s	The Contractor undertakes that the design, the Contractor's Documents, the execution and the completed Works will be in accordance with: (a) the Laws of Tanzania, and
	(b) the documents forming the Contract, as altered or modified by Variations.
5.4 Technical Standards and Regulations	The design, the Contractor's Documents, the execution and the completed Works shall comply with the Country's technical standards, building, construction and environmental Laws, Laws applicable to the product being produced from the Works, and other standards specified in the Employer's Requirements, applicable to the Works, or defined by the applicable Laws. All these Laws shall, in respect of the Works and each Section, be those prevailing when the Works or Section are taken over by the Employer under GCC 10 [Employer's Taking Over]. References in the Contract to
	published standards shall be understood to be references to the edition applicable on the Base Date, unless stated otherwise.
5.8 (1	If changed or new applicable standards come into force in the Country after the Base Date, the Contractor shall give notice to the Project Manager and (if appropriate) submit proposals for compliance. In the event that:
	(a) the Project Manager determines that compliance is required, and
5.1	(b) the proposals for compliance constitute a variation, then the Project Manager may initiate a Variation in accordance with GCC 13 [Variation s and Adjustments].
5.5 Training	The Contractor shall carry out the training of Employer's Personnel in the operation and maintenance of the Works to the extent specified in the Employer's Requirements. If the Contract specifies training which is to be carried out before taking-over, the Works shall not be considered to be completed for the purposes of taking-over under GCC 10.1 [Taking Over of the Works and Section s] until this training has been completed.
5.6 As-Built Documents	The Contractor shall prepare, and keep up-to-date, a complete set of "asbuilt" records of the execution of the Works, showing the exact as-built locations, sizes and details of the work as executed. These records shall be kept on the Site and shall be used exclusively for the purposes of this GCC. Two copies shall be supplied to the Project Manager prior to the commencement of the Tests on Completion.

		In addition, the Contractor shall supply to the Project Manager as-built drawings of the Works, showing all Works as executed, and submit them to the Project Manager for review under GCC 5.2 [Contractor's Documents]. The Contractor shall obtain the consent of the Project Manager as to their size, the referencing system, and other relevant details. Prior to the issue of any Taking-Over Certificate, the Contractor shall supply to the Project Manager the specified numbers and types of copies of the relevant as-built drawings, in accordance with the Employer's Requirements. The Works shall not be considered to be completed for the purposes of taking-over under GCC 10.1 [Taking Over of the Works and Section s] until the Project Manager has received these documents.
an M	7 Operation nd Iaintenance Ianuals	Prior to commencement of the Tests on Completion, the Contractor shall supply to the Project Manager provisional operation and maintenance manuals in sufficient detail for the Employer to operate, maintain, dismantle, reassemble, adjust and repair the Plant.
	·	The Works shall not be considered to be completed for the purposes of taking-over under GCC 10.1 [Taking Over of the Works and Section s] until the Project Manager has received final operation and maintenance manuals in such detail, and any other manuals specified in the Employer's Requirements for these purposes.
5.	.8 Design Error	If errors, omissions, ambiguities, inconsistencies, inadequacies or other defects are found in the Contractor's Documents, they and the Works shall be corrected at the Contractor's cost, notwithstanding any consent or approval under this Clause
1		F. Staff and Labour
6	.1 Engagemen of Staff and Labour	Contractor shall make arrangements for the engagement of all stall and labour, local or otherwise, and for their payment, feeding, transport, and, when appropriate, housing. The Contractor shall be obliged, to the extent practicable and reasonable, to employ staff and labour in compliance with Laws of
	5.2 Rates of Wages and Conditions Labour	observe conditions which are not lower than the general level of wages and conditions observed locally by Employers whose trade or industry is similar to that of the Contractor.
6	6.3 Persons in	the The Contractor shall not recruit, or attempt to recruit, staff and labour

Г		Service of	from amongst the Employer's Personnel.
		Employer	Tom uniongst the Employer's resolution
	6.4	Labour Laws	The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights. The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.
	6.5	Facilities for Staff and Labour	Except as otherwise stated in the Employer's Requirement, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. The Contractor shall also provide facilities for the Employer's Personnel as stated in the Employer's Requirement. The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.
	6.6	Health and Safety	The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel and the Public in accordance with the governing occupational health and safety Laws. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at all times at the Site and at any accommodation for Contractor's and Employer's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.
			The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the execution of the Works, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.
			The Contractor shall send, to the Project Manager, 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 property, as the Project Manager may reasonably require.
			The Contractor shall conduct an HIV-AIDS awareness programme via an approved service provider, and shall undertake such other measures

	as are specified in this Contract to reduce the risk of the transfer of the HIV between and among the Contractor's Personnel and the local community, to promote early diagnosis and to assist affected individuals.
6.7 Contractor's Superintendence	Throughout the execution of the Works, and as long thereafter as is necessary to fulfil the Contractor's obligations, the Contractor shall provide all necessary superintendence to plan, arrange, direct, manage, inspect and test the work.
	Superintendence shall be given by a sufficient number of persons having adequate knowledge of the language for communications (defined in GCC 1.4 [Law and Language]) and of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents), for the satisfactory and safe execution of the Works.
6.8 Contractor's Personnel	The Contractor's Personnel shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The Project Manager may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Contractor's Representative if applicable, who:
	 (a) persists in any misconduct or lack of care, (b) carries out duties incompetently or negligently, (c) fails to conform with any provisions of the Contract, or (d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment.
	If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.
6.9 Records of Contractor's Personnel and Equipment	The Contractor shall submit, to the Project Manager, details showing the number of each class of Contractor's Personnel and of each type of Contractor's Equipment on the Site. Details shall be submitted each calendar month, in a form approved by the Project Manager, until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.
6.10 Disorderly Conduct	The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst the Contractor's Personnel, and to preserve peace and protection of persons and property on and near the Site.
6.11 Foreign	The Contractor may bring in to the country any foreign personnel who

Personnel	are necessary for the execution of the Works to the extent allowed by the applicable Laws. The Contractor shall ensure that these personnel are provided with the required residence visas and work permits. The Employer will, if requested by the Contractor, use his best endeavours in a timely and expeditious manner to assist the Contractor in obtaining any local, state, national, or government permission required for bringing in the Contractor's personnel. The Contractor shall be responsible for the return of these personnel to the place where they were recruited or to their domicile. In the event of the death in the Country of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial.
6.12 Funeral Arrangements	The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of his local employees who may die while engaged upon the Works.
6.13 Prohibition of Forced or Compulsory Labour	The contractor shall not employ "forced or compulsory labour" in any form. "Forced or compulsory labour" consists of all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.
6.14 Prohibition of Harmful Child Labour	The Contractor shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.
6.15 Employment Records of Workers	The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis and submitted to the Project Manager, and these records shall be available for inspection by Auditors during normal working hours. These records shall be included in the details to be submitted by the Contractor under GCC 6.10 [Records of Contractor's Personnel and Equipment].
	G. Plant, Materials and Workmanship
7.1 Manner of Execution	The Contractor shall carry out the manufacture of Plant, the production and manufacture of Materials, and all other execution of the Works: (a) in the manner (if any) specified in the Contract, (b) in a proper workmanlike and careful manner, in accordance with recognised good practice, and with properly equipped facilities and non-hazardous Materials, except as otherwise specified in the Contract.
7.2 Samples	The Contractor shall submit the following samples of Materials, and

	relevant information, to the Project Manager for consent prior to using the Materials in or for the Works: (a) manufacturer's standard samples of Materials and samples specified in the Contract, all at the Contractor's cost, and (b) additional samples instructed by the Project Manager as a Variation. Each sample shall be labelled as to origin and intended use in the Works. The Authorized Employer's Personnel shall at all reasonable times:
7.3 Inspection	 (a) have full access to all parts of the offer that a which natural Materials are being obtained, and (b) during production, manufacture and construction (at the Site and elsewhere), be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of manufacture of Plant and production and manufacture of Materials.
	The Contractor shall give the Employer's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Contractor from any obligation or responsibility. The Contractor shall give notice to the Project Manager whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Project Manager shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that the Project Manager does not require to do so. If the Contractor fails to give the notice, he shall, if and when required by the Project Manager, uncover the work and thereafter reinstate and make good, all at the Contractor's cost.
7.4 Testing	This GCC shall apply to all tests specified in the Contract, other than the Tests after Completion (if any). Except as otherwise specified in the Contract, the Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables instruments, labour, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified test efficiently. The Contractor shall agree, with the Project Manage the time and place for the specified testing of any Plant, Material and other parts of the Works.

The Project Manager may, under GCC 13 [Variations and Adjustments], vary the location or details of specified tests, or instruct the Contractor to carry out additional tests. If these varied or additional tests show that the tested Plant, Materials or workmanship is not in accordance with the Contract, the cost of carrying out this Variation shall be borne by the Contractor, notwithstanding other provisions of the Contract.

The Project Manager shall give the Contractor not less than 24 hours' notice of the Project Manager's intention to attend the tests. If the Project Manager does not attend at the time and place agreed, the Contractor may proceed with the tests, unless otherwise instructed by the Project Manager, and the tests shall then be deemed to have been made in the Project Manager's presence.

If the Contractor suffers delay and/or incurs Cost from complying with these instructions or as a result of a delay for which the Employer is responsible, the Contractor shall give notice to the Project Manager and shall be entitled subject to GCC 20.1 [Contractor's Claims] to an extension of time and associated costs (if any) for such delay, if completion is or will be delayed, under GCC 8.4 [Extension of Time for Completion].

After receiving this notice, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine these matters.

The Contractor shall promptly forward to the Project Manager duly certified reports of the tests. When the specified tests have been passed, the Project Manager shall endorse the Contractor's test certificate, or issue a certificate to him, to that effect. If the Project Manager has not attended the tests, he shall be deemed to have accepted the readings as accurate.

7.5 Rejection

If, as a result of an examination, inspection, measurement or testing, any Plant, Materials or workmanship is found to be defective or otherwise not in accordance with the Contract, the Project Manager may reject the Plant, Materials or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item complies with the Contract.

If the Project Manager requires this Plant, Materials or workmanship to be retested, the tests shall be repeated under the

		same terms and conditions. If the rejection and retesting cause the Employer to incur additional costs, the Contractor shall subject to GCC 2.5 [Employer's Claims] pay these costs to the Employer.
7.6	Remedial Work	Notwithstanding any previous test or certification, the Project Manager may instruct the Contractor to:
		(a) remove from the Site and replace any Plant or Materials which is not in accordance with the Contract,
		(b) remove and re-execute any other work which is not in accordance with the Contract, and
		(c) execute any work which is urgently required for the safety of the Works, whether because of an accident, unforeseeable event or otherwise.
		The Contractor shall comply with the instruction within a reasonable time, which shall be the time (if any) specified in the instruction, or immediately if urgency is specified under subparagraph (c).
		If the Contractor fails to comply with the instruction, the Employer shall be entitled to employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for the work, the Contractor shall subject to GCC 2.5 [Employer's Claims] pay to the Employer all costs arising from this failure.
7.7	Ownership of Plant and Materials	Except otherwise specified in the Contract, each item of Plant and Materials shall, to the extent consistent with the Laws of the Country, become the property of the Employer at whichever is the earlier of the following times, free from liens and other encumbrances:
		(a) when it is incorporated in the Works;
		when the Contractor is paid the corresponding value of the Plant and Materials under GCC 8.10 [Payment for Plant and Materials in Event of Suspension].
7.8	Royalties	Unless otherwise stated in the Employer's Requirements, the Contractor shall pay all royalties, rents and other payments for:
		(a) natural Materials obtained from outside the Site, and

(b) the disposal of material from demolitions and excavations and of other surplus material (whether natural or manmade), except to the extent that disposal areas within the Site are specified in the Contract.

H. Commencement, Delays and Suspension

8.1 Commencement of Works

Except otherwise specified in the SCC, the Commencement Date shall be the date at which the following precedent conditions have all been fulfilled and the Project Manager's instruction recording the agreement of both Parties on such fulfilment and instructing to commence the Works is received by the Contractor:

- (a) Signing of the Contract by both Parties, and if required, approval of the Contract by relevant authorities in the Country; and
- (b) except if otherwise specified in the SCC, possession of the Site given to the Contractor together with such permission(s) under (a) of GCC 1.13 [Compliance with Laws] as required for the commencement of the Works

Where the above conditions have been met and the Project Manager's instruction is received by the Contractor, the Contractor shall commence the execution of the Works as soon as is reasonably practicable after the Commencement Date, and shall then proceed with the Works with due expedition and without delay.

Where the conditions (a) and (b) above have been met and the Project Manager's instruction is not received by the Contractor within 180 days from the date of signing the Contract without any justifiable reasons, the Contractor may terminate the Contract under GCC 16.2 [Termination by Contractor].

Time for mpletion

The Contractor shall complete the whole of the Works, and each Section (if any), within the Time for Completion for the Works or Section (as the case may be), including:

- (a) achieving the passing of the Tests on Completion, and
- (b) completing all work which is stated in the Contract as being required for the Works or Section to be considered to be completed for the purposes of taking-over under GCC 10.1 [Taking Over of the works and sections]

Programme

The Contractor shall submit a detailed time programme to the Project Manager within 14 working days after receiving the notice under GCC 8.1 [Commencement of Works]. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations. Each programme shall include:

- (a) the order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design, Contractor's Documents, procurement, manufacture, inspection, delivery to Site, construction, erection, testing, commissioning and trial operation,
- (b) the periods for reviews under GCC 5.2 [Contractor's Documents] and for any other submissions, approvals and consents specified in the Employer's Requirements,
- (c) the sequence and timing of inspections and tests specified in the Contract, and
- (d) a supporting report which includes:
 - i) a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and
 - ii) details showing the Contractor's reasonable estimate of the number of each class of Contractor's Personnel and of each type of Contractor's Equipment, required on the Site for each major stage.

Unless the Project Manager, within 14 working days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Employer's Personnel shall be entitled to rely upon the programme when planning their activities.

The Contractor shall promptly give notice to the Project Manager of specific probable future events or circumstances which may adversely affect the work, increase the Contract Price or delay the execution of the Works. The Project Manager may require the Contractor to submit an estimate of the anticipated effect of the future event or circumstances, and/or a proposal under GCC 13.3 [Variation Procedure].

If, at any time, the Project Manager gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contract or to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Project Manager in accordance with this GCC.

8.4 Extension of Time for Completion

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.

The Contractor shall be entitled subject to GCC 20.1 [Contractor's Claims] to an extension of the Time for Completion if and to the extent that completion for the purposes of GCC 10.1 [Taking Over of the Works and Section s] is or will be delayed by any of the following causes:

- (a) a Variation (unless an adjustment to the Time for Completion has been agreed under GCC 13.3 [Variation Procedure]),
- (b) a cause of delay giving an entitlement to extension of time under a GCC of these Conditions,
- (c) exceptionally adverse climatic conditions,
- (d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions, or
- (e) any delay, impediment or prevention caused by or attributable to the Employer, the Employer's Personnel, or the Employer's other contractors on the Site.

If the Contractor considers himself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Project Manager in accordance with GCC 20.1 [Contractor's

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	Claims]. When determining each extension of time under GCC 20.1, the Employer shall review previous determinations and may increase, but shall not decrease, the total extension of time. 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 compensation event(s) or variation. 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.
8.5 Rate of Progress	If, at any time:
	(a) actual progress is too slow to complete within the Time for Completion, and/or
	(b) progress has fallen (or will fall) behind the current programme under GCC 8.3 [Programme],
	other than as a result of a cause listed in GCC 8.4 [Extension of Time for Completion], then the Project Manager may, upon written approval of the Employer, instruct the Contractor to submit, under GCC 8.3 [Programme], a revised programme and supporting report describing the revised methods which the Contractor proposes to adopt in order to expedite progress and complete within the Time for Completion.
	Unless the Project Manager notifies otherwise, the Contractor shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of Contractor's Personnel and/or Goods, at the risk and cost of the Contractor. If these revised methods cause the Employer to incur additional costs, the Contractor shall subject to GCC 2.5 [Employer's Claims] pay these costs to the Employer, in addition to delay damages (if any) under GCC 8.7 below
8.6 Liquidated Damages	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

1	iquidated damages from payments due to the Contractor.
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	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 51.1
	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 45.1
8.7 Suspension of Work	The Project Manager may at any time instruct the Contractor to suspend progress of part or all of the Works. During such suspension, the Contractor shall protect, store and secure such part or the Works against any deterioration, loss or damage.
	The Project Manager may also notify the cause for the suspension If and to the extent that the cause is notified and is the responsibility of the Contractor, the following GCCs 8.8, 8.9 an 8.10 shall not apply.
8.8 Consequences of Suspension	If the Contractor suffers delay and/or incurs Cost from complying with the Project Manager's instructions under GCC 8 [Suspension of Work] and/or from resuming the work, the Contractor shall give notice to the Project Manager and shall be entitled subject to GCC 20.1 [Contractor's Claims] to an extension of time and associated costs (if any) for such delay, if completion is or will be delayed, under GCC 8.4 [Extension of Time for Completion], and
	After receiving this notice, the Project Manager shall proceed accordance with GCC 3.5 [Determinations] to determine the matters.
	The Contractor shall not be entitled to an extension of time for, to payment of the Cost incurred in, making good to consequences of the Contractor's faulty design, workmanship materials, or of the Contractor's failure to protect, store or secuin accordance with GCC 8.7 [Suspension of Work].
8.9 Payment for Plant and Materials in Event of	The Contractor shall be entitled to payment of the value (as at to date of suspension) of Plant and/or Materials which have a

(a) the work on Plant or delivery of Plant and/or Materials has been suspended for more than 28 days, and
(b) the Contractor has marked the Plant and/or Materials as the Employer's property in accordance with the Project Manager's instructions.
If the suspension under GCC 8.7 [Suspension of Work] has continued for more than 84 days, the Contractor may request the Project Manager's permission to proceed.
If the Project Manager does not give permission within 28 days after being requested to do so, the Contractor may, by giving notice to the Project Manager, treat the suspension as an omission under GCC 13 [Variations and Adjustments] of the affected part of the Works.
If the suspension affects the whole of the Works, the Contractor may give notice of termination under GCC 16.2 [Termination by Contractor].
After the permission or instruction to proceed is given, the Contractor and the Project Manager shall jointly examine the Works and the Plant and Materials affected by the suspension. The Contractor shall make good any deterioration or defect in or loss of the Works or Plant or Materials, which has occurred during the suspension.
I. Tests on Completion
The Contractor shall carry out the Tests on Completion in accordance with this Clause and GCC 7.4 [Testing], after providing the documents in accordance with sub-paragraph (d) of GCC 4.1 [Contractor's General Obligations]. The Contractor shall give to the Project Manager not less than 21 days notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion. Unless otherwise agreed, Tests on Completion shall be carried out within 14 working days after this date, on such day or days as the Project Manager may instruct. Unless otherwise stated in the SCC, the Tests on Completion shall be carried out in the following sequence: (a) pre-commissioning tests, which shall include the

been delivered to Site if:

Suspension

- appropriate inspections and ("dry" or "cold") functional tests to demonstrate that each item of Plant can safely undertake the next stage;
- (b) commissioning tests, which shall include the specified operational tests to demonstrate that the Works or Section can be operated safely and as specified, under all available operating conditions; and
- (c) trial operation, which shall demonstrate that the Works or Section perform reliably and in accordance with the Contract.

During trial operation, when the Works are operating under stable conditions, the Contractor shall give notice to the Project Manager that the Works are ready for any other Tests on Completion, including performance tests to demonstrate whether the Works conform with criteria specified in the Employer's Requirements and with the Schedule of Guarantees.

Trial operation shall not constitute a taking-over under GCC 10 [Employer's Taking Over]. Any product produced by the Works during trial operation shall be the property of the Employer.

In considering the results of the Tests on Completion, the Project Manager shall make allowances for the effect of any use of the Works by the Employer on the performance or other characteristics of the Works. As soon as the Works, or a Section, have passed any Tests on Completion, the Contractor shall submit a certified report of the results of these Tests to the Project Manager.

9.2 Delayed Tests

If the Tests on Completion are being unduly delayed by the Employer, GCC 7.4 [Testing] (fifth paragraph) and/or GCC 10.3 [Interference with Tests on Completion] shall be applicable.

If the Tests on Completion are being unduly delayed by the Contractor, the Project Manager may by notice require the Contractor to carry out the Tests within 21 days after receiving the notice. The Contractor shall carry out the Tests on such day or days within that period as the Contractor may fix and of which he shall give notice to the Project Manager.

If the Contractor fails to carry out the Tests on Completion within the period of 21 days, the Employer's Personnel may proceed with the Tests at the risk and cost of the Contractor. The Tests on Completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be

	accepted as accurate.
3 Retesting	If the Works, or a Section, fail to pass the Tests on Completion, GCC 7.5 [Rejection] shall apply, and the Project Manager or the Contractor may require the failed Tests, and Tests on Completion on any related work, to be repeated under the same terms and conditions.
Failure to Pass Tests on	If the Works, or a Section, fail to pass the Tests on Completion repeated under GCC 9.3 [Retesting], the Project Manager may:
Completion	(a) order further repetition of Tests on Completion under GCC 9.3;
	(b) if the failure deprives the Employer of substantially the whole benefit of the Works or Section, reject the Works or Section (as the case may be), in which event the Employer shall have the same remedies as are provided in subparagraph (c) of GCC 11.4 [Failure to Remedy Defects]; or
	(c) issue a Taking-Over Certificate, if the Employer so requests.
	In the event of sub-paragraph (c), the Contractor shall proceed in accordance with all other obligations under the Contract, and the Contract Price shall be reduced by such amount as shall be appropriate to cover the reduced value to the Employer as a result of this failure.
	Unless the relevant reduction for this failure is stated (or its method of calculation is defined) in the Contract, the Employer may require the reduction to be:
7	(h) agreed by both Parties (in full satisfaction of this failure only) and paid before this Taking-Over Certificate is issued, or
	(ii) determined and paid under GCC 2.5 [Employer's Claims] and GCC 3.5 [Determinations].
	J. Employer's Taking Over
0.1 Taking Over f the Works and ections	Except as stated in GCC 9.4 [Failure to Pass Tests on Completion], the Works shall be taken over by the Employer when (i) the Works have been completed in accordance with the Contract, including the matters described in GCC 8.2 [Time for Completion] and except as allowed in sub-paragraph (a) below, and

(ii) a Taking-Over Certificate for the Works has been issued, or is

deemed to have been issued in accordance with this GCC.

The Contractor may apply by notice to the Project Manager for a Taking-Over Certificate not earlier than 14 working days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are divided into Sections, the Contractor may similarly apply for a Taking-Over Certificate for each Section.

The Project Manager shall, within 28 days after receiving the Contractor's application:

- (a) issue the Taking-Over Certificate to the Contractor, stating the date on which the Works or Section were completed in accordance with the Contract, except for any minor outstanding work and defects which will not substantially affect the use of the Works or Section for their intended purpose (either until or whilst this work is completed and these defects are remedied); or
- (b) reject the application, giving reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work before issuing a further notice under this GCC.

If the Project Manager fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 28 days, and if the Works or Section (as the case may be) are substantially in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period.

10.2 Taking Over of Parts of the Works

The Project Manager may, at the sole discretion and written approval of the Employer, issue a Taking-Over Certificate for any part of the Permanent Works.

The Employer shall not use any part of the Works (other than as a temporary measure which is either specified in the Contract or agreed by both Parties) unless and until the Project Manager has issued a Taking-Over Certificate for this part. However, unless otherwise agreed by the Parties, if the Employer does use any part of the Works before the Taking-Over Certificate is issued:

(a) the part which is used shall be deemed to have been taken

over as from the date on which it is used,

- (b) the Contractor shall cease to be liable for the care of such part as from this date, when responsibility shall pass to the Employer, and
- (c) if requested by the Contractor, the Project Manager shall issue a Taking-Over Certificate for this part.

After the Project Manager has issued a Taking-Over Certificate for a part of the Works, the Contractor shall be given the earliest opportunity to take such steps as may be necessary to carry out any outstanding Tests on Completion. The Contractor shall carry out these Tests on Completion as soon as practicable before the expiry date of the relevant Defects Liability Period.

If the Contractor incurs cost as a result of the Employer taking over and/or using a part of the Works, other than such use as is specified in the Contract or agreed by the Contractor, the Contractor shall

(a) give notice to the Project Manager and

(b) be entitled subject to GCC 20.1 [Contractor's Claims] to payment of any such Cost plus profit, which shall be included in the Contract Price. After receiving this notice, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine the matter.

If a Taking-Over Certificate has been issued for a part of the Works (other than a Section), the Liquidated damages thereafter for completion of the remainder of the Works shall be reduced. Similarly, the Liquidated damages for the remainder of the Section (if any) in which this part is included shall also be reduced. For any period of delay after the date stated in this Taking-Over Certificate, the proportional reduction in these delay damages shall be calculated as the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be) as a whole. The Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to agree or determine these proportions. The provisions of this paragraph shall only apply to the daily rate of Liquidated damages under GCC 8.7 [Liquidated Damages], and shall not affect the maximum amount

of those damages
of these damages.
If the Contractor is prevented, for more than 14 days, from carrying out the Tests on Completion by a cause for which the Employer is responsible and the suffers a delay, the Contractor shall give notice to the Project Manager and may be entitled subject to GCC 20.1 [Contractor's Claims], to an extension of time and any associated costs (if any) for such delay, if completion is or will be delayed, under GCC 8.4 [Extension of Time for Completion], and After receiving this notice, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine these matters.
Except as otherwise stated in a Taking-Over Certificate, a certificate for a Section or part of the Works shall not be deemed to certify completion of any ground or other surfaces requiring reinstatement.
K. Defects Liability
In order that the Works and Contractor's Documents, and each Section, shall be in the condition required by the Contract (fair wear and tear excepted) by the expiry date of the relevant Defects Liability Period or as soon as practicable thereafter, the Contractor shall:
(a) complete any work which is outstanding on the date stated in a Taking-Over Certificate, within such reasonable time as is instructed by the Project Manager, and
(b) execute all work required to remedy defects or damage, as may be notified by (or on behalf of) the Employer on or before the expiry date of the Defects Liability Period for the Works or Section (as the case may be).
If a defect appears or damage occurs, the Contractor shall be notified accordingly, by (or on behalf of) the Employer.
All work referred to in sub-paragraph (b) of GCC 11.1 [Completion of Outstanding Work and Remedying Defects] shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:

	(a) any design for which the Contractor is responsible,
	(b) Plant, Materials or workmanship not being in accordance with the Contract, or
	(c) failure by the Contractor to comply with any other obligation.
	If and to the extent that such work is attributable to any other cause, the Contractor shall be notified promptly by (or on behalf of) the Employer and GCC 13.3 [Variation Procedure] shall apply.
11.3 Extension of Defects Liability Period	The Employer shall be entitled subject to GCC 2.5 [Employer's Claims] to an extension of the Defects Liability Period for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or by reason of a damage attributable to the Contractor. However, that extension shall not exceed two years. If delivery and/or erection of Plant and/or Materials was
	suspended under GCC 8.8 [Suspension of Work] or GCC 16.1 [Contractor's Entitlement to Suspend Work], the Contractor's obligations under this Clause shall not apply to any defects or damage occurring more than two years after the Defects Liability Period for the Plant and/or Materials would otherwise have expired.
11.4 Failure to Remedy Defects	If the Contractor fails to remedy any defect or damage within a reasonable time, a date may be fixed by (or on behalf of) the Employer, on or by which the defect or damage is to be remedied. The Contractor shall be given reasonable notice of this date.
	If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed at the cost of the Contractor under GCC 11.2 [Cost of Remedying Defects], the Employer may (at his option):
	(a) carry out the work himself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for this work; and the Contractor shall subject to GCC 2.5 [Employer's Claims] pay to the Employer the costs reasonably incurred by the Employer in remedying the defect or damage;

	(b) require the Project Manager to determine a reasonable reduction in the Contract Price in accordance with GCC 3.5 [Determinations]; or if the defect or damage deprives the Employer of substantially the whole benefit of the Works or any major part of the Works, terminate the Contract as a whole, or in respect of such major part which cannot be put to the intended use. Without prejudice to any other rights, under the Contract or otherwise, the Employer shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.
11.5 Removal of Defective Work	If the defect or damage cannot be remedied expeditiously on the Site and the Employer gives written consent, the Contractor may remove from the Site for the purposes of repair such items of Plant as are defective or damaged. This consent may require the Contractor to increase the amount of the Performance Security by the full replacement cost of these items, or to provide other appropriate security.
11.6 Further Tests	If the work of remedying of any defect or damage may affect the performance of the Works, the Project Manager may require the repetition of any of the tests described in the Contract. The requirement shall be made by notice within 14 working days after the defect or damage is remedied. These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Party liable, under GCC 11.2 [Cost of Remedying Defects], for the cost of the remedial work.
11.7 Right of Access	Until the Performance Certificate has been issued, the Contractor shall have the right of access to all parts of the Works and to records of the operation and performance of the Works, except as may be inconsistent with the Employer's security restrictions.
11.8 Contractor to Search	The Contractor shall, if required by the Project Manager, search for the cause of any defect, under the direction of the Project Manager. Unless the defect is to be remedied at the cost of the Contractor under GCC 11.2 [Cost of Remedying Defects], the Cost of the search plus profit shall be agreed or determined by the Project Manager in accordance with GCC 3.5 [Determinations] and shall be included in the Contract Price.
11.9 Performance	Performance of the Contractor's obligations shall not be

	considered to have been completed until the Project Manager has issued the Performance Certificate to the Contractor, stating the date on which the Contractor completed his obligations under the Contract.
	The Project Manager shall issue the Performance Certificate within 28 days after the latest of the expiry dates of the Defects Liability Periods, or as soon thereafter as the Contractor has supplied all the Contractor's Documents and completed and tested all the Works, including remedying any defects. A copy of the Performance Certificate shall be issued to the Employer.
	Only the Performance Certificate shall be deemed to constitute acceptance of the Works.
11.10 Unfulfilled Obligations	After the Performance Certificate has been issued, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the Contract shall be deemed to remain in force.
11.11 Clearance of Site	Upon receiving the Performance Certificate, the Contractor shall remove any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works from the Site. If all these items have not been removed within 28 days after receipt by the Contractor of the Performance Certificate, the Employer may sell or otherwise dispose of any remaining items. The Employer shall be entitled to be paid the costs incurred in connection with, or attributable to, such sale or disposal and restoring the Site. Any balance of the moneys from the sale shall be paid to the Contractor. If these moneys are less than the Employer's costs, the Contractor shall pay the outstanding balance to the Employer.
L. Tests after Completion	
12.1 Procedure for Tests after Completion	If Tests after Completion are specified in the SCC, this Clause shall apply. Unless otherwise stated in the SCC, the Employer shall:
	(a) provide all electricity, equipment, fuel, instruments, labour, materials, and suitably qualified and experienced staff, as

are necessary to carry out the Tests after Completion efficiently, and

(b) carry out the Tests after Completion in accordance with the manuals supplied by the Contractor under GCC 5.7 [Operation and Maintenance Manuals] and such guidance as the Contractor may be required to give during the course of these Tests; and in the presence of such Contractor's Personnel as either Party may reasonably request.

The Tests after Completion shall be carried out as soon as is reasonably practicable after the Works or Section have been taken over by the Employer. The Employer shall give to the Contractor 21 days' notice of the date after which the Tests after Completion will be carried out. Unless otherwise agreed, these Tests shall be carried out within 14 working days after this date, on the day or days determined by the Employer.

If the Contractor does not attend at the time and place agreed, the Employer may proceed with the Tests after Completion, which shall be deemed to have been made in the Contractor's presence, and the Contractor shall accept the readings as accurate.

The results of the Tests after Completion shall be compiled and evaluated by both Parties. Appropriate account shall be taken of the effect of the Employer's prior use of the Works.

12.2 Delayed Test

If the Contractor incurs Cost as a result of any unreasonable delay by the Employer to the Tests after Completion, the Contractor shall

- (a) give notice to the Project Manager; and
- (b) be entitled subject to GCC 20.1 [Contractor's Claims] to payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine this Cost and profit.

If, for reasons not attributable to the Contractor, a Tests after Completion on the Works or any Section cannot be completed during the Defects Liability Period (or any other period agreed upon by both Parties), then the Parties to agree on the final date of

	completing the test.
3 Retesting	If the Works, or a Section, fail to pass the Tests after Completion:
o recessing	 (a) sub-paragraph (b) of GCC 11.1 [Completion of Outstanding Work and Remedying Defects] shall apply; and (b) either Party may then require the failed Tests, and the Tests after Completion on any related work, to be repeated under the same terms and conditions.
	If and to the extent that this failure and retesting are attributable to any of the matters listed in sub-paragraphs (a) to (d) of GCC 11.2 [Cost of Remedying Defects] and cause the Employer to incur additional costs, the Contractor shall subject to GCC 2.5 [Employer's Claims] pay these costs to the Employer.
.4 Failure to Pass	If the following conditions apply, namely:
ests after ompletion	(a) the Works, or a Section, fail to pass any or all of the Tests after Completion,
	(b) the relevant sum payable as non-performance damages for this failure is stated (or its method of calculation is defined) in the Contract, and
	(c) the Contractor pays this relevant sum to the Employer during the Defects Liability Period, then the Works or Section shall be deemed to have passed these Tests after Completion.
	If the Works, or a Section, fail to pass a Test after Completion and the Contractor proposes to make adjustments or modifications to the Works or such Section, the Contractor may be instructed by (or on behalf of) the Employer that right of access to the Works or Section cannot be given until a time that is convenient to the Employer. The Contractor shall then remain liable to carry out the adjustments or modifications and to satisfy this Test, within a reasonable period of receiving notice by (or on behalf of) the Employer of the time that is convenient to the Employer. However, if the Contractor does not receive this notice during the relevant Defects Liability Period, the Contractor shall be relieved of this obligation.
	If the Contractor incurs additional Cost as a result of any

unreasonable delay by the Employer in permitting access to the Works or Plant by the Contractor, either to investigate the causes of a failure to pass a Tests after Completion or to carry out any adjustments or modifications, the Contractor may:

- (a) give notice to the Project Manager; and
- (b) be entitled subject to GCC 20.1 [Contractor's Claims] to payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine the matter.

M. Variations and Adjustments

.1 Right to Vary

Variations may be initiated by the Project Manager at any time prior to issuing the Taking-Over Certificate for the Works, either by an instruction or by a request for the Contractor to submit a proposal.

The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Project Manager stating (with supporting particulars) that (i) the Contractor cannot readily obtain the Goods required for the Variation, or (ii) such Variation triggers a substantial change in the sequence or progress of the Works. Upon receiving this notice, the Project Manager shall cancel, confirm or vary the instruction.

Variation may be in the form of:

- (a) changes to the quantities of any item of work included in the Contract;
- (a) changes to the quality and other characteristics of any item of work;
- (b) changes to the levels, positions and/or dimensions of any part of the Works;
- (a) omission of any Work unless it is to be carried out by others;
- (b) any additional Work, Plant, Materials or services necessary for the Permanent Works, including any associated Tests on Completion, boreholes and other testing and exploratory

	work; or
	(c) changes to the sequence or timing of the execution of the Works.
	The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Project Manager, with prior written approval of the Employer, instructs a Variation.
13.2 Value Engineering	The Contractor may, at any time, submit to the Project Manager a written proposal which (in the Contractor's opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Employer of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Employer of the completed Works, or (iv) otherwise be of benefit to the Employer.
	The proposal shall be prepared at the cost of the Contractor and shall include the items listed in GCC 13.3 [Variation Procedure].
	If a proposal, which is approved by the Project Manager, includes a change in the design of part of the Permanent Works, then unless otherwise agreed by both Parties:
	(a) the Contractor shall design this part,
	(b) sub-paragraphs (a) to (d) of GCC 4.1 [Contractor's General Obligations] shall apply, and
	(c) if this change results in a reduction in the contract value of this part, the Project Manager shall upon Employer's approval proceed in accordance with GCC 3.5 [Determinations] to determine a fee, which shall be included in the Contract Price. This fee shall be half (50%) of the difference between the following amounts:
	(i) such reduction in contract value, resulting from the change, excluding adjustments under GCC 13.3 [Adjustments for Changes in Legislation] and GCC 13.3 [Adjustments for Changes in Cost], and
	(ii) the reduction (if any) in the value to the Employer of the

varied works, taking account of any reductions in

quality, anticipated life or operational efficiencies.

However, if amount (i) is less than amount (ii), there shall not be a

	work; or
137	(c) changes to the sequence or timing of the execution of the Works.
	The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Project Manager, with prior written approval of the Employer, instructs a Variation.
13.2 Value Engineering	The Contractor may, at any time, submit to the Project Manager a written proposal which (in the Contractor's opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Employer of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Employer of the completed Works, or (iv) otherwise be of benefit to the Employer.
	The proposal shall be prepared at the cost of the Contractor and shall include the items listed in GCC 13.3 [Variation Procedure].
	If a proposal, which is approved by the Project Manager, includes a change in the design of part of the Permanent Works, then unless otherwise agreed by both Parties:
	(a) the Contractor shall design this part,
	(b) sub-paragraphs (a) to (d) of GCC 4.1 [Contractor's General Obligations] shall apply, and
I Ban Property of the Control of the	(c) if this change results in a reduction in the contract value of this part, the Project Manager shall upon Employer's approval proceed in accordance with GCC 3.5 [Determinations] to determine a fee, which shall be included in the Contract Price. This fee shall be half (50%) of the difference between the following amounts:
The state of the s	(i) such reduction in contract value, resulting from the change, excluding adjustments under GCC 13. [Adjustments for Changes in Legislation] and GCC 13. [Adjustments for Changes in Cost], and
	(ii) the reduction (if any) in the value to the Employer of the

varied works, taking account of any reductions in

quality, anticipated life or operational efficiencies.

However, if amount (i) is less than amount (ii), there shall not be a

	foo
	fee.
13.3 Variation Procedure	If the Project Manager requests a proposal, prior to instructing a Variation, the Contractor shall respond in writing as soon as practicable, either by giving reasons why he cannot comply (if this is the case) or by submitting:
	(a) a description of the proposed work to be performed and a programme for its execution,
	(b) the Contractor's proposal for any necessary modifications to the programme according to GCC 8.3 [Programme] and to the Time for Completion, and
	(c) the Contractor's proposal for evaluation of the Variation.
	The Project Manager shall, as soon as practicable after receiving such proposal (under GCC 13.2 [Value Engineering] or otherwise), respond with approval, disapproval or comments. The Contractor shall not delay any work whilst awaiting a response.
	Each instruction to execute a Variation, with any requirements for the recording of Costs, shall be issued by the Project Manager to the Contractor, who shall acknowledge receipt.
	Upon instructing or approving a Variation, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to agree or determine adjustments to the Contract Price and the Schedule of Payments. These adjustments shall include reasonable profit, and shall take account of the Contractor's submissions under GCC 13.2 [Value Engineering] if applicable.
13.4 Payment in Applicable Currencies	If the Contract provides for payment of the Contract Price in more than one currency, then whenever an adjustment is agreed, approved or determined as stated above, the amount payable in each of the applicable currencies shall be specified. For this purpose, reference shall be made to the actual or expected currency proportions of the Cost of the varied work, and to the proportions of various currencies specified for payment of the Contract Price.
13.5 Provisional Sums	Each Provisional Sum shall only be used, in whole or in part, in accordance with the Project Manager's instructions and the Contract Price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work,

supplies or services to which the Provisional Sum relates, as the Project Manager shall have instructed. For each Provisional Sum, the Project Manager may instruct:

- (a) work to be executed (including Plant, Materials or services to be supplied) by the Contractor and valued under GCC 13.3 [Variation Procedure]; and/or
- (b) Plant, Materials or services to be purchased by the Contractor, for which there shall be included in the Contract Price:
 - (i) the actual amounts paid (or due to be paid) by the Contractor, and
 - (ii) a sum for overhead charges and profit, calculated as a percentage of these actual amounts by applying the relevant percentage rate (if any) stated in the appropriate Schedule. If there is no such rate, the percentage rate stated in the Appendix to Tender shall be applied.

The Contractor shall, when required by the Project Manager, produce quotations, invoices, vouchers and accounts or receipts in substantiation.

13.6 Daywork

For work of a minor or incidental nature, the Project Manager may instruct that such work be executed on a daywork basis. The work shall then be valued in accordance with the Daywork Schedule included in the Contract, and the following procedure shall apply. If a Daywork Schedule is not included in the Contract, this GCC shall not apply.

Before ordering Goods for the work, the Contractor shall submit quotations to the Project Manager. When applying for payment, the Contractor shall submit invoices, vouchers and accounts or receipts for any Goods.

Except for any items for which the Daywork Schedule specifies that payment is not due, the Contractor shall deliver each day to the Project Manager accurate statements in duplicate which shall include the following details of the resources used in executing the previous day's work:

- (a) the names, occupations and time of Contractor's Personnel,
- (b) the identification, type and time of Contractor's Equipment

	and Temporary Works, and
	(c) the quantities and types of Plant and Materials used.
	One copy of each statement will, if correct, or when agreed, be signed by the Project Manager and returned to the Contractor. The Contractor shall then submit priced statements of these resources to the Project Manager, prior to their inclusion in the next Statement under GCC 14.3 [Application for Interim Payment Certificates].
Adjustments nges in tion	The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the Laws of Tanzania (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, made after the Base Date, which affect the Contractor in the performance of obligations under the Contract.
	If the Contractor suffers (or will suffer) delay and/or incurs (or will incur) additional Cost as a result of these changes in the Laws or in such interpretations, made after the Base Date, the Contractor shall give notice to the Project Manager and shall be entitled subject to GCC 20.1 [Contractor's Claims] to an extension of time and associated costs (if any) for such delay, if completion is or will be delayed, under GCC 8.4 [Extension of Time for Completion], and
	After receiving this notice, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine these matters.
	Notwithstanding the foregoing, the Contractor shall not be entitled to such an extension of time if the same shall already have been taken into account in determining an extension and such Cost shall not be separately paid if the same shall already have been taken into account in the indexing of any inputs to the table of adjustment data in accordance with the provisions of GCC 13.8.
Adjustments anges in Cost	In this GCC, "table of adjustment data" means the completed table of adjustment data for local and foreign currencies included in the Schedules. If there is no such table of adjustment data, this GCC shall not apply.
	If this GCC applies, the amounts payable to the Contractor shall

be adjusted for rises or falls in the cost of labour, Goods and other inputs to the Works, by the addition or deduction of the amounts determined by the formulae prescribed in this GCC. To the extent that full compensation for any rise or fall in Costs is not covered by the provisions of this or other Clauses, the Accepted Contract Amount shall be deemed to have included amounts to cover the contingency of other rises and falls in costs.

The adjustment to be applied to the amount otherwise payable to the Contractor, as valued in accordance with the appropriate Schedule and certified in Payment Certificates, shall be determined from 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 of the following general type:

Pn = a + b Ln / Lo + c En / Eo + d Mn / Mo + where:

"Pn" is the adjustment multiplier to be applied to the estimated contract value in the relevant currency of the work carried out in period "n", this period being a month unless otherwise stated in the SCC:

"a" is a fixed coefficient, stated in the relevant table of adjustment data, representing the non-adjustable portion in contractual payments;

"b", "c", "d", ... are coefficients representing the estimated proportion of each cost element related to the execution of the Works, as stated in the relevant table of adjustment data; such tabulated cost elements may be indicative of resources such as labour, equipment and materials;

"Ln", "En", "Mn", ... are the current cost indices or reference prices for period "n", expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the date 49 days prior to the last day of the period (to which the particular Payment Certificate relates); and

"Lo", "Eo", "Mo", ... are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the Base Date.

The cost indices or reference prices stated in the table of adjustment data shall be used. If their source is in doubt, it shall be determined by the Project Manager. For this purpose, reference

shall be made to the values of the indices at stated dates (quoted in the fourth and fifth columns respectively of the table) for the purposes of clarification of the source; although these dates (and thus these values) may not correspond to the base cost indices.

In cases where the "currency of index" (stated in the table) is not the relevant currency of payment, each index shall be converted into the relevant currency of payment at the selling rate, established by the central bank of the Country, of this relevant currency on the above date for which the index is required to be applicable.

Until such time as each current cost index is available, the Project Manager shall determine a provisional index for the issue of Interim Payment Certificates. When a current cost index is available, the adjustment shall be recalculated accordingly.

If the Contractor fails to complete the Works within the Time for Completion, adjustment of prices thereafter shall be made using either (i) each index or price applicable on the date 49 days prior to the expiry of the Time for Completion of the Works, or (ii) the current index or price: whichever is more favourable to the Employer.

The weightings (coefficients) for each of the factors of cost stated in the table(s) of adjustment data shall only be adjusted if they have been rendered unreasonable, unbalanced or inapplicable, as a result of Variations.

N. Contract Price and Payment

14.1 The Contract

Unless otherwise stated in the SCC:

- (a) the Contract Price shall be the lumpsum contract amount agreed or determined under GCC 12.3 [Evaluation] and be subject to adjustments in accordance with the Contract;
- (b) the Contractor shall pay all taxes, duties and fees required to be paid by him under the Contract, and the Contract Price shall not be adjusted for any of these costs except as stated in GCC 13.7 [Adjustments for Changes in Legislation];
- (c) any quantities which may be set out in the Bill of Quantities or other Schedule are estimated quantities and are not to be taken as the actual and correct quantities:

- (i) of the Works which the Contractor is required to execute, or
- (ii) for the purposes of GCC 12 [Measurement and Evaluation]; and

the Contractor shall submit to the Project Manager, within 28 days after the Commencement Date, a proposed breakdown of each lump sum price in the Schedules. The Project Manager may take account of the breakdown when preparing Payment Certificates, but shall not be bound by it.

14.2 Advance Payment

If stated in the SCC the Employer shall make advance payment to the Contractor of the amounts stated in the SCC by the manner 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.

The Contractor shall use the advance payment to pay for mobilization and design expenses required specifically for design and 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.

Unless and until the Employer receives this guarantee, or if the total advance payment is not stated in the SCC, this GCC shall not apply.

The Project Manager shall deliver to the Employer and to the Contractor an Interim Payment Certificate for the advance payment or its first instalment after receiving a Statement (under GCC 14.3 [Application for Interim Payment Certificates]) and after the Employer receives

- (a) the Performance Security in accordance with GCC 4.2 [Performance Security]; and
- (b) a guarantee in amounts and currencies equal to the advance payment. This guarantee shall be issued by an entity and from within a country (or other jurisdiction) approved by the Employer, and shall be in the form annexed to the SCC or in another form approved by the Employer.

The Contractor shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid, but its amount shall be progressively reduced by the amount repaid by the Contractor as indicated in the Payment Certificates. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.

Unless otherwise stated in the SCC, the advance payment shall be repaid through percentage deductions from the interim payments determined by the Project Manager in accordance with GCC 14.6 [Issue of Interim Payment Certificates], as follows:

- (a) deductions shall commence in the next interim Payment Certificate following that in which the total of all certified interim payments (excluding the advance payment and deductions and repayments of retention) exceeds 30 percent of the Accepted Contract Amount less Provisional Sums; and
- (b) deductions shall be made at the amortisation rate stated in the SCC of the amount of each Interim Payment Certificate (excluding the advance payment and deductions for its repayments as well as deductions for retention money) in the currencies and proportions of the advance payment until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the time when eighty per cent (80%) of the Accepted Contract Amount less Provisional Sums has been certified for payment.

If the advance payment has not been repaid prior to the issue of the Taking-Over Certificate for the Works or prior to termination under GCC 15 [Termination by Employer], GCC 16 [Suspension and Termination by Contractor] or GCC 19 [Force Majeure] (as the case may be), the whole of the balance then outstanding shall immediately become due and in case of termination under GCC 15 [Termination by Employer] and GCC 19.6 [Optional Termination, Payment and Release], payable by the Contractor to the Employer.

4.3 Application or Interim

ertificates

The Contractor shall submit a Statement in six copies to the Project Manager after the end of each month, in a form approved by the Project Manager, showing in detail the amounts to which the Contractor considers himself to be entitled, together with supporting documents which shall include the report on the

progress during this month in accordance with GCC 4.21 [Progress Reports]. The Statement shall include the following items, as applicable, which shall be expressed in the various currencies in which the Contract Price is payable, in the sequence listed: the estimated contract value of the Works executed and the (a) Contractor's Documents produced up to the end of the month (including Variations but excluding items described in sub-paragraphs (b) to (g) below); any amounts to be added and deducted for changes in (b) legislation and changes in cost, in accordance with GCC 13.7 [Adjustments for Changes in Legislation] and GCC 13.8 [Adjustments for Changes in Cost]; any amount to be deducted for retention, calculated by (c) applying the percentage of retention stated in the SCC to the total of the above amounts, until the amount so retained by the Employer reaches the limit of Retention Money (if any) stated in the SCC: any amounts to be added for the advance payment and (if (d) more than one instalment) and to be deducted for its repayments in accordance with GCC 14.2 [Advance Payment]; any amounts to be added and deducted for Plant and (e) Materials in accordance with GCC 14.5 [Plant and Materials intended for the Worksl: any other additions or deductions which may have become (f) due under the Contract or otherwise, including those under GCC 20 [Claims, Disputes and Arbitration]; and the deduction of amounts certified in all previous Payment Certificates.

Schedule of nents

If the Contract includes a schedule of payments specifying the instalments in which the Contract Price will be paid, then unless otherwise stated in this schedule:

(a) the instalments quoted in this schedule of payments shall be the estimated contract values for the purposes of subparagraph (a) of GCC 14.3 [Application for Interim Payment Certificates];

- (b) GCC 14.5 [Plant and Materials intended for the Works] shall not apply; and
- (c) if these instalments are not defined by reference to the actual progress achieved in executing the Works, and if actual progress is found to be less or more than that on which this schedule of payments was based, then the Project Manager may proceed in accordance with GCC 3.5 [Determinations] to agree or determine revised instalments, which shall take account of the extent to which progress is less than that on which the instalments were previously based.

If the Contract does not include a schedule of payments, the Contractor shall submit non-binding estimates of the payments which he expects to become due during each quarterly period. The first estimate shall be submitted within 42 days after the Commencement Date. Revised estimates shall be submitted at quarterly intervals, until the Taking-Over Certificate has been issued for the Works.

14.5 Plant and Materials intended for the Works

If this GCC applies, Interim Payment Certificates shall include, under sub-paragraph (e) of GCC 14.3,

- (a) an amount for Plant and Materials which have been sent to the Site for incorporation in the Permanent Works, and
- (b) a reduction when the contract value of such Plant and Materials is included as part of the Permanent Works under sub-paragraph (a) of GCC 14.3 [Application for Interim Payment Certificates].

If the lists referred to in sub-paragraphs (b)(i) or (c)(i) below are not included in the SCC, this GCC shall not apply.

The Project Manager shall determine and certify each addition if the following conditions are satisfied:

- (a) the Contractor has:
 - (i) kept satisfactory records (including the orders, receipts, Costs and use of Plant and Materials) which are available for inspection, and
 - (ii) submitted a statement of the Cost of acquiring and delivering the Plant and Materials to the Site, supported

by satisfactory evidence;

and either:

- (b) the relevant Plant and Materials:
 - (i) are those listed in the Schedules for payment when shipped,
 - (ii) have been shipped to the Country, en route to the Site, in accordance with the Contract; and
 - (iii) are described in a clean shipped bill of lading or other evidence of shipment, which has been submitted to the Project Manager together with evidence of payment of freight and insurance, any other documents reasonably required, and a bank guarantee in a form and issued by an entity approved by the Employer in amounts and currencies equal to the amount due under this GCC: this guarantee may be in a similar form to the form referred to in GCC 14.2 [Advance Payment] and shall be valid until the Plant and Materials are properly stored on Site and protected against loss, damage or deterioration;

or

- (c) the relevant Plant and Materials:
 - (i) are those listed in the Schedules for payment when delivered to the Site, and
 - (ii) have been delivered to and are properly stored on the Site, are protected against loss, damage or deterioration, and appear to be in accordance with the Contract.

The additional amount to be certified shall be the equivalent of eighty percent of the Project Manager's determination of the cost of the Plant and Materials (including delivery to Site), taking account of the documents mentioned in this GCC and of the contract value of the Plant and Materials.

The currencies for this additional amount shall be the same as those in which payment will become due when the contract value is included under sub-paragraph (a) of GCC 14.3 [Application for Interim Payment Certificates]. At that time, the Payment Certificate shall include the applicable reduction which shall be equivalent to, and in the same currencies and proportions as, this

	additional amount for the relevant Plant and Materials.
14.6 Issue of Interim Payment Certificates	No amount will be certified or paid until the Employer has received and approved the Performance Security. Thereafter, the Project Manager shall, within 28 days after receiving a Statement and supporting documents, deliver to the Employer and to the Contractor an Interim Payment Certificate which shall state the amount which the Project Manager fairly determines to be due, with all supporting particulars for any reduction or withholding made by the Project Manager on the Statement.
	However, prior to issuing the Taking-Over Certificate for the Works, the Project Manager shall not be bound to issue an Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment Certificates (if any) pursuant to GCC 14.2. In this event, the Project Manager shall give notice to the Contractor accordingly.
	An Interim Payment Certificate shall not be withheld for any other reason, although: (a) if anything supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or
	(b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Project Manager, the value of this work or obligation may be withheld until the work or obligation has been performed.
	The Project Manager may in any Payment Certificate make any correction or modification that should properly be made to any

r	arovious Payment Certificate A Payment Certificate Shall not be
C	deemed to indicate the Project Manager's acceptance, approval, consent or satisfaction.
7 Payment and	The Employer shall pay to the Contractor:
rrency	the amount certified in each Interim Payment Certificate within 56 days after the Project Manager receives the Statement and supporting documents or, at a time when the funds or credit (from which part of the payments to the Contractor is being made) is suspended, the amount shown on any statement submitted by the Contractor, within 14 days after such statement is submitted. Any discrepancy shall be rectified in the next payment to the Contractor; and
	(b) the amount certified in the Final Payment Certificate within 56 days after the Employer receives this Payment Certificate or, at a time when the Government's fund (from which part of the payments to the Contractor is being made) is suspended, the undisputed amount shown in the Final Statement, within 56 days after the date of notification of the suspension in accordance with GCC 16.2.
	Payment of the amount due in each currency shall be made into the bank account, nominated by the Contractor, in the payment country (for this currency) specified 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 calculating such amounts shall be the Bank of Tanzania exchange rate prevailing on the date of signing the Contract.
l.8 Delayed ayment	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 signing the Contract for each of the currencies in which payments are made.
4.9 Payment of etention Money	When the Taking-Over Certificate has been issued for the Works, the first half of the Retention Money shall be certified by the Project Manager for payment to the Contractor.
	If a Taking-Over Certificate is issued for a Section or part of the Works, a proportion of the Retention Money shall be certified and

	paid. This proportion shall be half (50%) of the proportion calculated by dividing the estimated contract value of the Section or part, by the estimated final Contract Price.
	Promptly after the latest of the expiry dates of the Defects Liability Periods, the outstanding balance of the Retention Money shall be certified by the Project Manager for payment to the Contractor. If a Taking-Over Certificate was issued for a Section, a proportion of the second half of the Retention Money shall be certified and paid promptly after the expiry date of the Defects Liability Period for the Section. This proportion shall be half (50%) of the proportion calculated by dividing the estimated contract value of the Section by the estimated final Contract Price.
	However, if any work remains to be executed under GCC 11 [Defects Liability], the Project Manager shall be entitled to withhold certification of the estimated cost of this work until it has been executed.
	When calculating these proportions, no account shall be taken of any adjustments under GCC 13.7 [Adjustments for Changes in Legislation] and GCC 13.8 [Adjustments for Changes in Cost].
0 Statement at npletion	Within 84 days after receiving the Taking-Over Certificate for the Works, unless otherwise stated in the SCC, the Contractor shall submit to the Project Manager six copies of a Statement at completion with supporting documents, in accordance with GCC 14.3 [Application for Interim Payment Certificates], showing:
	(a) the value of all work done in accordance with the Contract up to the date stated in the Taking-Over Certificate for the Works,
	(b) any further sums which the Contractor considers to be due, and
	(c) an estimate of any other amounts which the Contractor considers will become due to him under the Contract. Estimated amounts shall be shown separately in this Statement at completion.
	The Project Manager shall then certify in accordance with GCC 14.6 [Issue of Interim Payment Certificates].
1 Application Final Payment	Within 56 days after receiving the Performance Certificate, unless otherwise stated in the SCC, the Contractor shall submit to the
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Certificate	Project Manager, six copies of a final statement with supporting
	documents showing in detail in a form approved by the Project Manager:
	(a) the value of all work done in accordance with the Contract, and
	(b) any further sums which the Contractor considers to be due to him under the Contract or otherwise.
	If the Project Manager disagrees with or cannot verify any part of the final statement, the Contractor shall submit such further information as the Project Manager may reasonably require within 28 days from receipt of the said draft and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Project Manager the final statement as agreed. This agreed statement is referred to in these Conditions as the "Final Statement".
	However if, following discussions between the Project Manager and the Contractor and any changes to the final statement which are agreed, it becomes evident that a dispute exists, the Project Manager shall deliver to the Employer (with a copy to the Contractor) an Interim Payment Certificate for the agreed parts of the draft final statement. Thereafter, if the dispute is finally resolved under GCC 20.4 [Obtaining Dispute Board's Decision] or GCC 20.5 [Amicable Settlement], the Contractor shall then prepare and submit to the Employer (with a copy to the Project Manager) a Final Statement.
14.12 Discharge	When submitting the Final Statement, the Contractor shall submit a discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract. This discharge may state that it becomes effective when the Contractor has received the Performance Security and the outstanding balance of this total, in which event the discharge shall be effective on such date.
14.13 Issue of Final Payment Certificate	Within 28 days after receiving the Final Statement and a written discharge in accordance with GCC 14.11 [Application for Final Payment Certificate] and GCC 14.12 [Discharge], the Project Manager shall deliver to the Employer and to the Contractor, the Final Payment Certificate which shall state:
	(a) the amount which he fairly determines is finally due, and

after giving credit to the Employer for all amounts (b) previously paid by the Employer and for all sums to which the Employer is entitled, the balance (if any) due from the Employer to the Contractor or from the Contractor to the Employer, as the case may be. If the Contractor has not applied for a Final Payment Certificate in accordance with GCC 14.11 [Application for Final Payment Certificate] and GCC 14.12 [Discharge], the Project Manager shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 28 days, the Project Manager shall issue the Final Payment Certificate for such amount based on his determination of final Statement submitted by the Contractor. 14.14 Cessation of The Employer shall not be liable to the Contractor for any matter Employer's or thing under or in connection with the Contract or execution of Liability the Works, except to the extent that the Contractor shall have included an amount expressly for it: in the Final Statement and also (a) (b) (except for matters or things arising after the issue of the Taking-Over Certificate for the Works) in the Statement at completion described in GCC 14.10 [Statement Completion]. However, this GCC shall not limit the Employer's liability under his indemnification obligations, or the Employer's liability in any case of fraud, deliberate default or reckless misconduct by the Employer. Within 56 days after receiving the Performance Certificate, unless otherwise stated in the SCC, the Contractor shall submit to the Project Manager, six copies of a final statement with supporting documents showing in detail in a form approved by the Project Manager: the value of all work done in accordance with the Contract,

14.11 Application for Final Payment Certificate

- and
- any further sums which the Contractor considers to be due (d) to him under the Contract or otherwise.

If the Project Manager disagrees with or cannot verify any part of the final statement, the Contractor shall submit such further information as the Project Manager may reasonably require within 28 days from receipt of the said draft and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Project Manager the final statement as agreed. This agreed statement is referred to in these Conditions as the "Final Statement".

However, if, following discussions between the Project Manager and the Contractor and any changes to the final statement which are agreed, it becomes evident that a dispute exists, the Project Manager shall deliver to the Employer (with a copy to the Contractor) an Interim Payment Certificate for the agreed parts of the draft final statement. Thereafter, if the dispute is finally resolved under GCC 20.4 [Obtaining Dispute Board's Decision] or GCC 20.5 [Amicable Settlement], the Contractor shall then prepare and submit to the Employer (with a copy to the Project Manager) a Final Statement.

When submitting the Final Statement, the Contractor shall submit a discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract. This discharge may state that it becomes effective when the Contractor has received the Performance Security and the outstanding balance of this total, in which event the discharge shall be effective on such date.

Within 28 days after receiving the Final Statement and a written discharge in accordance with GCC 14.11 [Application for Final Payment Certificate] and GCC 14.12 [Discharge], the Project Manager shall deliver to the Employer and to the Contractor, the Final Payment Certificate which shall state:

- (c) the amount which he fairly determines is finally due, and
- (d) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled, the balance (if any) due from the Employer to the Contractor or from the Contractor to the Employer, as the case may be.

If the Contractor has not applied for a Final Payment Certificate in accordance with GCC 14.11 [Application for Final Payment Certificate] and GCC 14.12 [Discharge], the Project Manager shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 28 days, the Project Manager

information as the Project Manager may reasonably require within 28 days from receipt of the said draft and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Project Manager the final statement as agreed. This agreed statement is referred to in these Conditions as the "Final Statement".
However, if, following discussions between the Project Manager and the Contractor and any changes to the final statement which are agreed, it becomes evident that a dispute exists, the Project Manager shall deliver to the Employer (with a copy to the Contractor) an Interim Payment Certificate for the agreed parts of the draft final statement. Thereafter, if the dispute is finally resolved under GCC 20.4 [Obtaining Dispute Board's Decision] or GCC 20.5 [Amicable Settlement], the Contractor shall then prepare and submit to the Employer (with a copy to the Project Manager) a Final Statement.
When submitting the Final Statement, the Contractor shall submit a discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract. This discharge may state that it becomes effective when the Contractor has received the Performance Security and the outstanding balance of this total, in which event the discharge shall be effective on such date.
Within 28 days after receiving the Final Statement and a written discharge in accordance with GCC 14.11 [Application for Final Payment Certificate] and GCC 14.12 [Discharge], the Project Manager shall deliver to the Employer and to the Contractor, the Final Payment Certificate which shall state:
(c) the amount which he fairly determines is finally due, and
(d) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled, the balance (if any) due from the Employer to the Contractor or from the Contractor to the Employer, as the case may be.
If the Contractor has not applied for a Final Payment Certificate in accordance with GCC 14.11 [Application for Final Payment Certificate] and GCC 14.12 [Discharge], the Project Manager shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 28 days, the Project Manager

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	shall issue the Final Payment Certificate for such amount based on his determination of final Statement submitted by the Contractor.
14.14 Cessation of Employer's Liability	The Employer shall not be liable to the Contractor for any matter or thing under or in connection with the Contract or execution of the Works, except to the extent that the Contractor shall have included an amount expressly for it:
	(c) in the Final Statement and also
	(d) (except for matters or things arising after the issue of the Taking-Over Certificate for the Works) in the Statement at completion described in GCC 14.10 [Statement at Completion].
	However, this GCC shall not limit the Employer's liability under his indemnification obligations, or the Employer's liability in any case of fraud, deliberate default or reckless misconduct by the Employer.
	O. Termination by Employer
15.1 Notice to Correct	If the Contractor fails to carry out any obligation under the Contract, the Project Manager may by notice require the Contractor to make good the failure and to remedy it within a specified reasonable time.
15.2 Termination	The Employer may terminate the Contract if the Contractor:
by Employer	(a) fails to comply with GCC 4.2 [Performance Security] or with a notice under GCC 15.1 [Notice to Correct],
	(b) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract,
	(c) without reasonable excuse fails:
	(i) to proceed with the Works in accordance with GCC 8 [Commencement, Delays and Suspension], or
	(ii) to comply with a notice issued under GCC 7.5 [Rejection] or GCC 7.6 [Remedial Work], within 28 days after receiving it,
	(d) subcontracts the whole of the Works or assigns the Contract

without the required agreement,

- (e) becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events, or
- (f) gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an inducement or reward:
 - (i) for doing or forbearing to do any action in relation to the Contract, or
 - (ii) for showing or for bearing to show favour or disfavour to any person in relation to the Contract,

or if any of the Contractor's Personnel, agents or Subcontractors gives or offers to give (directly or indirectly) to any person any such inducement or reward as is described in this sub-paragraph (f). However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination.

In any of these events or circumstances, the Employer may, upon giving 14 working days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of sub-paragraph (e) or (f), the Employer may by notice terminate the Contract immediately.

The Employer's choice to terminate the Contract shall not prejudice any other rights of the Employer, under the Contract or otherwise.

The Contractor shall then leave the Site and deliver any required Goods, all Contractors' Documents, and other design documents made by or for him, to the Project Manager. However, the Contractor shall use his best efforts to comply immediately with any reasonable instructions included in the notice

- i) for the assignment of any subcontract, and
- ii) for the protection of life or property or for the safety of the Works.

After termination, the Employer may complete the Works and/or arrange for any other entities to do so. The Employer and these entities may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor.

	The Employer shall then give notice that the Contractor's Equipment and Temporary Works will be released to the Contractor at or near the Site. The Contractor shall promptly arrange their removal, at the risk and cost of the Contractor. However, if by this time the Contractor has failed to make a payment due to the Employer, these items may be sold by the Employer in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.
15.3 Valuation at Date of Termination	As soon as practicable after a notice of termination under GCC 15.2 [Termination by Employer] has taken effect, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine the value of the Works, Goods and Contractor's Documents, and any other sums due to the Contractor for work executed in accordance with the Contract.
15.4 Payment after Termination	After a notice of termination under GCC 15.2 [Termination by Employer] has taken effect, the Employer may: (a) proceed in accordance with GCC 2.5 [Employer's Claims], (b) withhold further payments to the Contractor until the costs of execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Employer, have been established, and/or recover from the Contractor any losses and damages incurred by the Employer and any extra costs of completing the Works, after allowing for any sum due to the Contractor under GCC 15.3 [Valuation at Date of Termination]. After recovering any such losses, damages and extra costs, the Employer shall pay any balance to the Contractor.
15.5 Employer's Entitlement to Termination for Convenience	The Employer shall be entitled to terminate the Contract, at any time for the Employer's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 28 days after the later of the dates on which the Contractor receives this notice or the Employer returns the Performance Security. The Employer shall not terminate the Contract under this GCC in order to execute the Works himself or to arrange for the Works to be executed by another contractor or to avoid a termination of the Contract by the Contractor under GCC 16.4 [Payment on Termination].
	After this termination, the Contractor shall proceed in accordance with GCC 16.3 [Cessation of Work and Removal of Contractor's Equipment] and shall be paid in accordance with GCC 19.6

	[Optional Termination, Payment and Release].			
15.6 Corrupt or Fraudulent Practices	If the Contractor is determined by Competent Authority that he has engaged in corrupt, fraudulent, collusive or coercive practices, in competing for or in executing the Contract, then the Employer may, after giving 14 days notice to the Contractor, terminate the Contractor's employment under the Contract and expel him from the Site, and the provisions of GCC 15 shall apply as if such expulsion had been made under GCC 15.2 [Contractor's Personnel].			
	For the purposes of this GCC:			
	(i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;			
	(ii) "fraudulent practice" means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;			
	(iii) "collusive practices" means a scheme or arrangement between two or more bidders, with or without the knowledge of the Borrower, designed to establish bid prices at artificial, non-competitive levels;			
	(iv) "coercive practices" means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract.			
P	2. Suspension and Termination by the Contractor			
16.1 Contractor's Entitlement to Suspend Work	If the Project Manager fails to certify in accordance with GCC 14.6 [Issue of Interim Payment Certificates] or the Employer fails to comply with GCC 2.4 [Employer's Financial Arrangements] or GCC 14.7 [Payment], the Contractor may, after giving not less than 28 days' notice to the Employer, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate, reasonable evidence or payment, as the case may be and as described in the notice.			
	Notwithstanding the above, if the Government has suspended disbursements, which finances in whole or in part the execution			

of the Works, and no agreement has been reached by the parties pursuant to GCC 2.8, the Contractor may by notice suspend work or reduce the rate of work at any time, but not less than 14 working days after the Employer having received the suspension notification from the Government.

The Contractor's action shall not prejudice his entitlements to interest under GCC 14.8 [Delayed Payment] and to termination under GCC 16.2 [Termination by Contractor].

If the Contractor subsequently receives such Payment Certificate, evidence or payment (as described in the relevant GCC and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.

If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this GCC, the Contractor shall give notice to the Project Manager and shall be entitled subject to GCC 20.1 [Contractor's Claims] to an extension of time and associated costs (if any) for such delay, if completion is or will be delayed, under GCC 8.4 [Extension of Time for Completion], and

After receiving this notice, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine these matters.

16.2 Termination by Contractor

The Contractor may terminate the Contract if:

- (a) the Contractor does not receive the reasonable evidence within 42 days after giving notice under GCC 16.1 [Contractor's Entitlement to Suspend Work] in respect of a failure to comply with GCC 2.4 [failure to reach agreement upon Government suspension of financing]
- (b) the Employer substantially fails to perform his obligations under the Contract in such manner as to materially and adversely affect the execution of the Contract;
- (c) the Employer fails to comply with GCC 1.6 [Contract];
- (d) a prolonged suspension affects the whole of the Works as described in GCC 8.11 [Prolonged Suspension], or
- (e) the Employer becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made

- against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events.
- (f) In the event the Government suspends the funds from which part of the payments to the Contractor are being made and the time agreed for future event pursuant to GCC 2.4 has expired.
 - (g) the Contractor does not receive the Project Manager's instruction recording the agreement of both Parties on the fulfilment of the conditions for the Commencement of Works under GCC 8.1 [Commencement of Works].

In any of these events or circumstances, the Contractor may, upon giving 14 working days notice to the Employer, terminate the Contract. However, in the case of sub-paragraph (g), the Contractor may by notice terminate the Contract immediately.

The Contractor's election to terminate the Contract shall not prejudice any other rights of the Contractor, under the Contract or otherwise.

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After a notice of termination under GCC 15.5 [Employer's Entitlement to Termination for Convenience], GCC 16.2 [Termination by Contractor] or GCC 19.6 [Optional Termination, Payment and Release] has taken effect, the Contractor shall promptly:

- (a) cease all further work, except for such work as may have been instructed by the Project Manager for the protection of life or property or for the safety of the Works,
- (b) hand over Contractor's Documents, Plant, Materials and other work; and

remove all other Goods which are property of the Contractor from the Site, except as necessary for safety, and leave the Site.

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After a notice of termination under GCC 16.2 [Termination by Contractor] has taken effect, the Employer shall promptly:

(a) pay the Contractor in accordance with GCC 19.6 [Optional

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return the Performance Security to the Contractor provided that all performance obligation of the Contractor has been fulfilled.

Q. Risk and Responsibility

Indemnities

The Contractor shall indemnify and hold harmless the Employer, the Employer's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:

- (a) bodily injury, sickness, disease or death, of any person whatsoever arising out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents, and
- (b) damage to or loss of any property, real or personal (including works), to the extent that such damage or loss arises out of or in the course of or by reason of the Contractor's design, the execution and completion of the Works and the remedying of any defects, unless and to the extent that any such damage or loss is attributable to any negligence, Fraud, wilful act or omissions by the Employer, the Employer's Personnel, their respective agents.

The Employer shall indemnify and hold harmless the Contractor, the Contractor's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of (1) bodily injury, sickness, disease or death, which is attributable to any negligence, fraud, wilful act or omission by the Employer, the Employer's Personnel, or any of their respective agents, and (2) the matters for which liability may be excluded from insurance cover, as described in sub-paragraphs (d)(i), (ii) and (iii) of GCC 18.3 [Insurance Against Injury to Persons and Damage to Property].

17.2 Contractor's Care of the Works

Notwithstanding GCC 11 [Defects Liability], the Contractor shall take full responsibility for the care of the Works and Goods from the Commencement Date until the Taking-Over Certificate is issued (or is deemed to be issued under GCC 10.1 [Taking Over of the Works and Sections]) for the Works, when responsibility for

	Termination, Payment and Release], and
	return the Performance Security to the Contractor provided that all performance obligation of the Contractor has been fulfilled.
	Q. Risk and Responsibility
17.1 Indemnities	The Contractor shall indemnify and hold harmless the Employer, the Employer's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:
	(a) bodily injury, sickness, disease or death, of any person whatsoever arising out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents, and
	(b) damage to or loss of any property, real or personal (including works), to the extent that such damage or loss arises out of or in the course of or by reason of the Contractor's design, the execution and completion of the Works and the remedying of any defects, unless and to the extent that any such damage or loss is attributable to any negligence, Fraud, wilful act or omissions by the Employer, the Employer's Personnel, their respective agents.
	The Employer shall indemnify and hold harmless the Contractor, the Contractor's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of (1) bodily injury, sickness, disease or death, which is attributable to any negligence, fraud, wilful act or omission by the Employer, the Employer's Personnel, or any of their respective agents, and (2) the matters for which liability may be excluded from insurance cover, as described in sub-paragraphs (d)(i), (ii) and (iii) of GCC 18.3 [Insurance Against Injury to Persons and Damage to Property].
17.2 Contractor's	Notwithstanding GCC 11 [Defects Liability] the Contractor shall

17.2 Contractor's Care of the Works

Notwithstanding GCC 11 [Defects Liability], the Contractor shall take full responsibility for the care of the Works and Goods from the Commencement Date until the Taking-Over Certificate is issued (or is deemed to be issued under GCC 10.1 [Taking Over of the Works and Sections]) for the Works, when responsibility for

	the care of the Works shall pass to the Employer. If a Taking-Over Certificate is issued (or is so deemed to be issued) for any Section or part of the Works, responsibility for the care of the Section or part shall then pass to the Employer.
	After responsibility has accordingly passed to the Employer, the Contractor shall take responsibility for the care of any work which is outstanding on the date stated in a Taking-Over Certificate, until this outstanding work has been completed.
	If any loss or damage happens to the Works, Goods or Contractor's Documents during the period when the Contractor is responsible for their care, from any cause not listed in GCC 17.3 [Employer's Risks], the Contractor shall rectify the loss or damage at the Contractor's risk and cost, so that the Works, Goods and Contractor's Documents conform with the Contract.
	The Contractor shall be liable for any loss or damage caused by any actions performed by the Contractor after a Taking-Over Certificate has been issued. The Contractor shall also be liable for any loss or damage which occurs after a Taking-Over Certificate has been issued and which arose from a previous event for which the Contractor was liable.
17.3 Employer's Risks	The risks referred to in GCC 17.4 below, insofar as they directly affect the execution of the Works in the Country, are:
	 (a) use or occupation by the Employer of any part of the Permanent Works, except as may be specified and agreed under the Contract, (b) design of any part of the Works by the Employer's Personnel or by others for whom the Employer is responsible, and
17.4 Consequences of Employer's Risks	If and to the extent that any of the risks listed in GCC 17.3 above results in loss or damage to the Works, Goods or Contractor's Documents, the Contractor shall promptly give notice to the Project Manager and shall rectify this loss or damage to the extent required by the Project Manager.
	If the Contractor suffers delay and/or incurs Cost from rectifying this loss or damage, the Contractor shall give a further notice to the Project Manager and shall be entitled subject to GCC 20.1 [Contractor's Claims] to an extension of time and any associated costs (if any) for such delay, if completion is or will be delayed,

	under GCC 8.4 [Extension of Time for Completion]
	In the case of sub-paragraphs (a) and (b) of GCC 17.3 [Employer 's Risks], Cost plus profit shall be payable.
	After receiving this further notice, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine these matters.
7.5 Intellectual nd Industrial Property Rights	In this GCC, "infringement" means an infringement (or alleged infringement) of any patent, registered design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works; and "claim" means a claim (or proceedings pursuing a claim) alleging an infringement.
	Whenever a Party does not give notice to the other Party of any claim within 90 days of receiving the claim, the first Party shall be deemed to have waived any right to indemnity under this GCC.
	The Employer shall indemnify and hold the Contractor harmless against and from any claim alleging an infringement which is or was:
	(a) an unavoidable result of the Contractor's compliance with the Contract, or
	(b) a result of any Works being used by the Employer:
	(i) for a purpose other than that indicated by, or reasonably to be inferred from, the Contract, or
	(ii) in conjunction with anything not supplied by the Contractor, unless such use was disclosed to the Contractor prior to the Base Date or is stated in the Contract. The Contractor shall indemnify and hold the Employer harmless
	against and from any other claim which arises out of or in relation to (i) the manufacture, use, sale or import of any Goods, or (ii) any design for which the Contractor is responsible. If a Party is entitled to be indemnified under this GCC, the
	indemnifying Party may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it. The other Party shall, at the request and cost of the indemnifying Party, assist in contesting the claim.

17.6	Limitation of
Liabil	lity

Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other Party in connection with the Contract, other than as specifically provided in GCC 8.7 [Liquidated Damages]; GCC 11.2 [Cost of Remedying Defects]; GCC 15.4 [Payment after Termination]; GCC 16.4 [Payment on Termination]; GCC 17.1 [Indemnities]; GCC 17.4 (b) [Consequences of Employer's Risks] and GCC 17.5 [Intellectual and Industrial Property Rights].

The total liability of the Contractor to the Employer, under or in connection with the Contract other than under GCC 4.19 [Electricity, Water and Gas], GCC 4.20 [Employer's Equipment and Free-Issue Material], GCC 17.1 [Indemnities] and GCC 17.5 [Intellectual and Industrial Property Rights], shall not exceed the sum resulting from the application of a multiplier (greater than one) to the Contract Sum, as stated in the SCC, or (if such multiplier or other sum is not so stated), the Contract Sum.

This Clause shall not limit liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.

17.7 Use of Employer's Accomodation/Facilities

The Contractor shall take full responsibility for the care of the Employer provided accommodation and facilities, if any, as detailed in the Employer's Requirement, from the respective dates of hand-over to the Contractor until cessation of occupation (where hand-over or cessation of occupation may take place after the date stated in the Taking-Over Certificate for the Works).

If any loss or damage happens to any of the above items while the Contractor is responsible for their care arising from any cause whatsoever other than those for which the Employer is liable, the Contractor shall, at his own cost, rectify the loss or damage to the satisfaction of the Employer.

R. Insurance

18.1 General Requirements for Insurances

In this Clause, "insuring Party" means, for each type of insurance, the Party responsible for effecting and maintaining the insurance specified in the relevant GCC.

Wherever the Contractor is the insuring Party, each insurance shall be effected with insurers and in terms approved by the Employer. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.

Wherever the Employer is the insuring Party, each insurance shall be effected with insurers and in terms acceptable to the Contractor. These terms shall be consistent with any terms provided in the tendering documents except as otherwise agreed by both Parties as stipulated in the **SCC**. This agreement of terms shall take precedence over the provisions of this Clause.

If a policy is required to indemnify joint insured, the cover shall apply separately to each insured as though a separate policy had been issued for each of the joint insured.

Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify the loss or damage. Payments received from insurers shall be used for the rectification of the loss or damage.

The relevant insuring Party shall, within the respective periods stated in the SCC (calculated from the Commencement Date), submit to the other Party:

- (a) evidence that the insurances described in this Clause have been effected, and
- (b) copies of the policies for the insurances described in GCC 18.2 [Insurance for Works and Contractor's Equipment] and GCC 18.3 [Insurance against Injury to Persons and Damage to Property].

When each premium is paid, the insuring Party shall submit evidence of payment to the other Party. Whenever evidence or policies are submitted, the insuring Party shall also give notice to the Project Manager.

Each Party shall comply with the conditions stipulated in its respective insurance policy. The insuring Party shall keep the insurers informed of any relevant changes to the execution of the Works and ensure that insurance is maintained in accordance with this Clause.

Neither Party shall make any material alteration to the terms of any insurance without the prior approval of the other Party.

If the insuring Party fails to effect and keep in force any of the insurances it is required to effect and maintain under the Contract, or fails to provide satisfactory evidence and copies of

policies in accordance with this GCC, the other Party may (at its option and without prejudice to any other right or remedy) effect insurance for the relevant coverage and pay the premiums due. The insuring Party shall pay the amount of these premiums to the other Party, and the Contract Price shall be adjusted accordingly.

Nothing in this Clause limits the obligations, liabilities or responsibilities of the Contractor or the Employer, under the other terms of the Contract or otherwise. Any amounts not insured or not recovered from the insurers shall be borne by the Contractor and/or the Employer in accordance with these obligations, liabilities or responsibilities. However, if the insuring Party fails to effect and keep in force an insurance which is available and which it is required to effect and maintain under the Contract, and the other Party neither approves the omission nor effects insurance for the coverage relevant to this default, any moneys which should have been recoverable under this insurance shall be paid by the insuring Party.

Payments by one Party to the other Party shall be subject to GCC 2.5 [Employer's Claims] or GCC 20.1 [Contractor's Claims], as applicable.

The Contractor shall be entitled to place all insurance relating to the Contract (including, but not limited to the insurance referred to GCC 18) with insurers from any eligible source country specified in the SCC.

Insurance for orks and contractor's full pment

The Contractor shall insure the Works, Plant, Materials and Contractor's Documents for not less than the full reinstatement cost including the costs of demolition, removal of debris and professional fees and profit. 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.

The Contractor shall maintain this insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking-Over Certificate, and for loss or damage caused by the Contractor in the course of any other operations (including those under GCC 11 [Defects Liability]).

The Contractor shall insure the Contractor's Equipment for not

less than the full replacement value, including delivery to Site. For each item of Contractor's Equipment, the insurance shall be effective while it is being transported to the Site and until it is no longer required as Contractor's Equipment.

Unless otherwise stated in the SCC, insurances under this GCC:

- (a) shall be effected and maintained by the Contractor as insuring Party,
- (b) shall be in the joint names of the Parties, who shall be jointly entitled to receive payments from the insurers, payments being held or allocated to the Party actually bearing the costs of rectifying the loss or damage;
- (c) shall cover all loss and damage from any cause not specifically stated under the contract to be Employer's Risks;
- (d) shall also cover, to the extent specifically specified in the SCC, loss or damage to a part of the Works which is attributable to the use or occupation by the Employer of another part of the Works, and loss or damage from the risks listed in GCC 19 [Force Majeure], excluding (in each case) risks which are not insurable at commercially reasonable terms; and
- (e) may however exclude loss of, damage to, and reinstatement of:
- (i) a part of the Works which is in a defective condition due to a defect in its design, materials or workmanship (but cover shall include any other parts which are lost or damaged as a direct result of this defective condition and not as described in subparagraph (ii) below),

a part of the Works which is lost or damaged in order to reinstate any other part of the Works if this other part is in a defective condition due to a defect in its design, materials or workmanship

18.3 Insurance against Injury to Persons and Damage to Property

The insuring Party shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under GCC 18.2 [Insurance for Works and Contractor's Equipment]) or to any person (except persons insured under GCC 18.4 [Insurance for Contractor's Personnel]), which may arise out of the Contractor's performance of the Contract and occurring before the issue of the

Performance Certificate.

Unless otherwise stated in the SCC, the insurances specified in this GCC:

- (a) shall be effected and maintained by the Contractor as insuring Party,
- (b) shall be in the joint names of the Parties,
- (c) shall be extended to cover liability for all loss and damage to the Employer's property (except things insured under GCC 18.2) arising out of the Contractor's performance of the Contract, and
- (d) may however exclude liability to the extent that it arises from:
- (i) the Employer's right to have the Permanent Works executed on, over, under, in or through any land, and to occupy this land for the Permanent Works,
- (ii) damage which is an unavoidable result of the Contractor's obligations to execute the Works and remedy any defects, and

a cause listed in GCC 19 [Force Majeure], except to the extent that cover is available at commercially reasonable terms.

18.4 Insurance for Contractor's Personnel

The Contractor shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.

The insurance shall cover the Employer and the Project Manager against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel, except that this insurance may exclude losses and claims to the extent that they arise from wilful acts and omissions, neglect of the Employer or of the Employer's Personnel.

The insurance shall be maintained and be in effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, the insurance may

be effected by the Subcontractor, but the Contractor shall be responsible for compliance with this Clause.

S. Force Majeure

19.1 Definition of Force Majeure

In this Clause, "Force Majeure" means an exceptional event or circumstance:

- (a) which is beyond a Party's control;
- (b) which such Party could not reasonably have provided against before entering into the Contract;
- (c) which, having arisen, such Party could not reasonably have avoided or overcome, and
- (d) which is not substantially attributable to the other Party.

Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:

- (i) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (ii) rebellion, by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
- (iii) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel,
- (iv) munitions of war, explosive materials, ionising radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and

natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

19.2 Notice of Force Majeure

If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 working days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.

	Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.		
3 Duty to nimize Delay	Each Party shall at all times use all reasonable endeavours to minimise any delay in the performance of the Contract as a result of Force Majeure.		
	A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.		
4 Consequenc of Force Majeure	If the Contractor is prevented from performing its substantial obligations under the Contract by Force Majeure of which notice has been given under GCC 19.2 [Notice of Force Majeure], and suffers delay and/or incurs Cost by reason of such Force Majeure, the Contractor may be entitled subject to GCC 20.1 [Contractor's Claims] to:		
	(a) an extension of time for any such delay, if completion is or will be delayed, under GCC 8.4 [Extension of Time for Completion], and		
	(b) if the event or circumstance is of the kind described in subparagraphs (i) to (iv) of GCC 19.1 [Definition of Force Majeure] and, in the case of sub-paragraphs (ii) to (iv), occurs in the Country, payment of any such Cost, including the costs of rectifying or replacing the Works and/or Goods damaged or destructed by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in GCC 18.2 [Insurance for Works and Contractor's Equipment].		
	After receiving this notice, the Project Manager shall proceed in accordance with GCC 3.5 [Determinations] to determine these matters.		
.5 Force ajeure Affecting ibcontractor	If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's non-performance or entitle him to		
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The Party shall, having given notice, be excused from performance of its obligations for so long as such Force Majeure

Notwithstanding any other provision of this Clause, Force

prevents it from performing them.

	relief under this Clause.
19.6 Optional Termination, Payment and Release	If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under GCC 19.2 [Notice of Force Majeure], or for multiple periods which total more than 140 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 14 working days after the notice is given, and the Contractor shall proceed in accordance with GCC 16.3 [Cessation of Work and Removal of Contractor's Equipment].
	Upon such termination, the Project Manager upon written approval of the Employer shall, determine the value of the work done and issue a Payment Certificate which shall include:
	(a) the amounts payable for any work carried out for which a price is stated in the Contract;
	(b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Employer when paid for by the Employer, and the Contractor shall place the same at the Employer's disposal;
	(c) other Costs or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;
	the Cost of removal of Temporary Works; and
19.7 Release from Performance	Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises which makes it impossible or unlawful for either or both Parties to fulfil its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance:
	(a) the Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any

previous breach of the Contract, and

the sum payable by the Employer to the Contractor shall be the same as would have been payable under GCC 19.6 [Optional Termination, Payment and Release] if the Contract had been terminated under GCC 19.6.

T. Claims, Disputes and Arbitration

20.1 Contractor's Claims

If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Project Manager, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance.

If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this GCC shall apply.

The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.

The Contractor shall keep such records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Project Manager. Without admitting the Employer's liability, the Project Manager may, after receiving any notice under this Clause, monitor the record-keeping and/or instruct the Contractor to keep further records. The Contractor shall permit the Project Manager to inspect all these records, and shall submit copies to the Project Manager.

Within 14 days after the Contractor submission of Notice, or within such other period as may be approved by the Project Manager, the Contractor shall send to the Project Manager a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed.

	Within 28 days after receiving a claim or any further particular supporting a claim, the Project Manager shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within the above defined time period. Within the above defined period of 28 days, the Project Manage upon written approval of the Employer shall proceed in accordance with GCC 3.5 [Determinations] to determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with GCC 8.4 [Extension of Time for Completion], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.
	If the Project Manager does not respond within the timeframe defined in this Clause, either Party may consider that the claim is rejected by the Project Manager and any of the Parties may refer to the other Party for Amicable settlement in accordance with GCC 20.2
	The requirements of this Clause are in addition to those of any other Clause which may apply to a claim. If the Contractor fails to comply with this or another Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Clause.
20.2 Amicable Settlement	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 to a Dispute Adjudication Panel (DAP) nominated by the appointing Authority specified in the SCC.
20.3 Appointment of the Dispute Adjudication Panel	Disputes shall be referred to a Dispute Adjudication Panel (DAP) for decision in accordance with GCC 20.4 [Obtaining Dispute Adjudication Panel's Decision].
P	The Appointing Authority of the DAP shall appoint the DAP members when the Dispute arises. The DAP shall comprise, as stated in the SCC, either one or three suitably qualified persons

("the members"), each of whom shall be fluent in the language for communication defined in the Contract and shall be a professional experienced in the type of construction involved in the Works and with the interpretation of contractual documents. If the number is not so stated in the SCC, the DAP shall comprise three persons, one of whom shall serve as chairman.

The terms of the remuneration of either the sole member or each of the three members, including the remuneration of any expert where Parties mutually approve, whom the DAP consults, shall be in accordance with the rules of the Appointing Authority. Each Party shall be responsible for paying one-half of this remuneration.

If a member declines to act or is unable to act as a result of death, disability, resignation or termination of appointment, a replacement shall be appointed in the same manner as the replaced person was required to have been Appointed, as described in this Sub-Clause.

Unless otherwise agreed by both Parties, the appointment of the DAP (including each member) shall expire when the DAP issues a decision.

20.4 Obtaining Dispute Board's Decision

If a dispute (of any kind whatsoever) arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works, including any dispute as to any certificate, determination, instruction, opinion or valuation of the Project Manager, and the Parties have failed to resolve through amicable settlement, either Party may notify in writing the other Party and the Appointing Authority for appointment of the DAP.

Upon Appointment of the DAP by the Appointing Authority, the notifying Party may refer the dispute in writing to the DAP for its decision, with copies to the other Party and the Project Manager. Such reference shall state that it is given under this Sub-Clause.

For a DAP of three persons, the DAP shall be deemed to have received such reference on the date when it is received by the chairman of the DAP.

Both Parties shall promptly make available to the DAP all such additional information, further access to the Site, and appropriate facilities, as the DAP may require for the purposes of making a decision on such dispute. The DAP shall be deemed to be not acting as arbitrator(s).

Within 60 days after receiving such reference, or within such

other period as may be proposed by the DAP and approved by both Parties, the DAP shall give its decision, which shall be reasoned and shall state that it is given under this Sub-Clause. The decision shall be binding on both Parties, who shall promptly give effect to it unless and until it shall be revised in an arbitral award as described below. Unless the Contract has already been abandoned, repudiated or terminated, the Contractor shall continue to proceed with the Works in accordance with the Contract.

If either Party is dissatisfied with the DAP's decision, then the dissatisfied Party may, within 14 working days after receiving the decision, give notice to the other Party of its dissatisfaction and intention to commence arbitration.

If the DAP fails to give its decision within the period of 60 days (or as otherwise approved) after receiving such reference, then either Party may, within 14 working days after this period has expired, give notice to the other Party of its dissatisfaction and intention to commence arbitration.

In either event, this notice of dissatisfaction shall state that it is given under this Sub-Clause, and shall set out the matter in dispute and the reason(s) for dissatisfaction. Except as stated in GCC 20.7 [Failure to Comply with Dispute Adjudication Panel's Decision], neither Party shall commence arbitration of a dispute unless a notice of dissatisfaction to the other Party has been given in accordance with this Sub-Clause.

If the DAP has given its decision as to a matter in dispute to both Parties, and no notice of dissatisfaction has been given by either Party within 14 working days after it received the DAP's decision, then the decision shall become final and binding upon both Parties.

20.5 Arbitration

Any dispute not settled amicably and in respect of which the DAP's decision (if any) has not become final and binding shall be finally settled by arbitration. Unless otherwise agreed by both Parties:

- (a) For contracts with foreign contractors:
 - i) international arbitration with proceedings administered by the international arbitration institution stated in the SCC, in accordance with the rules of arbitration of the appointed institution;

Provided that Parties may agree in the SCC to resolve their

dispute in accordance with provisions of paragraph (b) of this GCC.

- ii) the place of arbitration shall be stated **in the SCC** or such other place selected in accordance with the applicable arbitration rules; and
- iii) the arbitration shall be conducted in the language for communications defined in GCC 5.3; and
- (b) For contracts with domestic contractors, arbitration with proceedings conducted in accordance with the laws of Tanzania.

The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Project Manager, and any decision of the DAP, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Project Manager from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.

Neither Party shall be limited in the proceedings before the arbitrators to the evidence nor arguments previously put before the DAP to obtain its decision, or to the reasons for dissatisfaction given in its notice of dissatisfaction. Any decision of the DAP shall be admissible in evidence in the arbitration.

Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, the Project Manager and the DAP shall not be altered by reason of any arbitration being conducted during the progress of the Works.

20.6 Failure to Comply with Dispute Board's Decision

In the event that a Party fails to comply with a DAP decision which has become final and binding, then the other Party may, without prejudice to any other rights it may have, refer the failure itself to arbitration

8. TECHNICAL SPECIFICATIONS.

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1. EXCAVATION AND EARTHWORK

1.1 Nature of excavation

The contractor must ascertain for him the nature of the material to be excavated and price work accordingly as no allowance will be made beyond the contract sum of any alleged ignorance in this respect

1.2 Excavations generally

Excavations have been measured from the drawings including the Engineer's sit plan showing existing contours. It is the responsibility of the contractor to check the commencing levels prior to commencing the work as no extra payment will be made in respect of any alleged excavations carried out due to the commencing levels being above that shown upon the drawings without the prior written agreement of the Structural Engineer prior to commencement of excavation.

1.3 Site clearance

The contractor shall clear the construction areas within the site of all bushes, roots, boulders, natural obstructions, rubbish and any other natural or artificial obstructions, which would interfere with construction of buildings, roads, paths and drains

1.4 Over-site excavation

Excavated material suitable for back-filling around foundations and for making up levels under roads, floors etc., is to be kept separate from soil spoil heaps and to be reused as directed or spread and levelled on the site at the end of excavation operations when found to be surplus. The amount of any such disposal will be measured on site by the Quantity Surveyor. Vegetable soil is not to be used for back filling around foundations.

1.5 Excavation below required depths

Should any excavation be made below the levels or lines shown on the drawings or otherwise required by the Structural Engineer, the contractor must fill up the resultant over-excavation to the proper levels or lines with concrete nominal mix (1:4:8) at his own expense (see "concrete work").

1.6 Filling

The fill shall be clean, selected coarse sand or gravel. It should be taken from borrow pits if the soil on the site is found to contain too much fines and to have too low plasticity limit to be used as fill.

The fill shall be deposited in horizontal layers of max. 200mm Thickness. As soon as possible after the fill is laid out, it should be compacted in min. three passes of a vibratory-roller and/or vibrating- plate compactor. The equipment to be used must be approved by the Engineer.

At each area (control area) of 500m2-compacted fill, three field density tests (e.g. by the sand-replacement method) should be taken randomly.

The Control area to be accepted if all three test results are above 97% of the max. Density as determined at a homogenous mixing of all three samples by the Standard Proctor Method. Otherwise, repeat the test, each time with three new samples until the above requirement is met or re-compact and test again.

1.7 Return, fill in and ram

Return, fill in and ram suitable filling material as described above around foundations and other concrete structure in layers not exceeding 150mm thick and carefully ram and consolidate with power rammer. No filling in shall be executed until concrete foundations etc., have been inspected and approved by the Structural Engineer.

Regardless of the means of back filling and compaction adopted, the contractor is responsible not only for the standard of the work but also for any possible damage of the permanent work or adjacent structure.

1.8 Levelling

No item is measured for levelling and consolidating ground and rates for excavation must include for levelling and preparing the ground for concrete or other works including ramming or rolling.

1.9 Soil sterilisation

Anti-termite treatment is to be carried out by an approved specialist firm who will be required, upon completion of the soil sterilisation, to furnish a written guarantee qualifying the following: -

- That the chemicals applied comply with the requirements specified herein for chemical concentration and rates of application.
- That the treatment will remain effective against termite infestation for a period of five years.

• The free re-treatment by the firm of any areas showing signs of infestation before the expiry of the five year period.

The chemicals used shall be Gammalin 20 EC or such other approved solutions.

Under no circumstances shall banned chemicals be permitted in soil anti ret5mite treatment. Some of the chemicals listed above are toxic to animal and plant life and must therefore, be applied only with caution by an experienced person. Where individual water supply systems are proposed precautions must be taken to prevent in filtering and endangering the water supply. Treatment shall not be made when soils of fill are excessively wet or immediately after heavy rain.

Precautions must also be taken to prevent disturbance of the treatment by animals or human contact with the treated soil. The treated area is to be covered as quickly as possible after treatment.

The rate of application is to be 5 litres per square metre and the areas measured include those under floor and round wall and column foundations.

The contractor shall notify the structural engineer in sufficient time before the filling of foundation trenches and laying of concrete floor bed in order that the Architect may nominate a specialist firm to execute the soil sterilisation.

Any additional costs caused by the contractor not rendering sufficient prior notice to the Architect will be borne entirely by the Contractor.

1.10 Disposal of surplus excavated material

Surplus excavated material will be carted away from the vicinity of the walls and deposited, spread and levelled on areas to be allocated by the Structural Engineer, reasonably adjacent to the site.

1.11 Disposal of water

The contractor shall keep the excavations free from standing water and silt (or excavated material softened by water) and he shall include for the cost of pumping, construction of temporary drains; soak-way pits, etc., as deemed necessary to achieve this. An item has been included for this in the Bills in each relevant section. The cost of pumping to dispose of any spring or running water has been covered by a Provisional Sum. If spring or running water is encountered the cost of any pumping ordered by the Structural Engineer will be paid for in accordance with the Day works schedule.

1.12 Planking and strutting

Sides of all excavations must be supported in order to prevent falls from or collapse of the earth face. The "Planking and Strutting" is deemed to include any method or methods, which the contractor elects to adopt to uphold, protect and maintain the sides of excavations. The contractor will be responsible for any consequences of his failure in this respect including clearing away fallen materials and any extra concrete or other works including formwork ordered by the Structural Engineer due to such failure. An item has been included in these Bills in each relevant section.

1.13 Hard core

Hard core shall be hard crushed stone to pass a 100mm ring in all directions. No sand, quarry dust or fine material will be permitted. All hard core beds shall be topped with a layer of fine stone or aggregates minimum size 12mm to fill the voids on the surface to receive concrete beds. Rates for hard core shall include for levelling or finishing or laying to falls and consolidating by rolling as described for "Filling" above.

1.14 Earth filling to make up levels

The site requires mass earth filling to reach the formation level. All excavations for trenches and column bases shall be executed before filling the site to required levels. No extra payment shall be made for extra quantities if the Contractor decides to fill the site before excavation of foundation trenches and column bases.

2. CONCRETE WORK

2.1 Materials and workmanship generally

The recommendations of the recent British Standard Codes of Practice BS 8110 for the Structural use of reinforced concrete in buildings shall be deemed to be incorporated in these preamble clauses unless otherwise specifically stated.

2.2 Materials generally

All materials to be used in the works shall conform as to quality and description as specified hereunder and shall be equal to approved samples. In particular no materials shall be used until approved samples shall be supplied to the Consulting Engineer for approval at least one week before ordering in bulk and delivery to the site. Any material delivered to the site, which, has not been previously approved by the Structural Engineer shall be the Contractor's liability. All materials shall be transported, handled and stored on site so as to preclude damage deterioration or contamination. All condemned materials are to be removed from the site within 24 hours.

2.3 Cement

crystalline or smooth (but not glassy) non-powdery surface. Flakey and laminated pieces, mica and shale shall only be present in such quantities as not to affect adversely the strength and durability of the concrete.

The four nominal aggregate sizes shall be 40mm (1½"); 20mm (3/4"); 10mm (3/8"); 6mm (¼"); and the grading when analysed as described in BS. 812 shall be within the limits given in BS. 882. Structural Engineer will specify sizes of aggregates to be used in specific areas. For most work 20 mm maximum size aggregates will be used. The nominal maximum size of coarse aggregates should be not greater than ¼ of the minimum thickness of concrete section or element.

2.7 Water

Water used for mixing of concrete, washing out of shuttering and similar purpose shall be clean, fresh and free from organic impurities in amounts likely to impair the quality of the concrete and should comply to requirements of BS 5328 and BS 3148:1980 "Methods of test for water for making concrete".

2.8 Admixtures

Structural Engineer will approve all concrete admixtures after submission of specifications or proprietary brands and relevant trial mix verification at site by Contractor. Admixtures to comply with BS 5075: Concrete Admixtures.

2.9 Steel reinforcement

Steel for reinforced concrete shall comply with the following specification: -

- i) Mild steel rod reinforcement shall comply with BS. 4449.
- ii) High tensile steel reinforcement shall be either cold worked deformed steel bars of circular octagonal section complying with BS. 4461 or hot rolled deformed high tensile bars having a guaranteed minimum yield stress of 460 N/mm2 and other physical qualities in accordance with BS. 4449
- iii) Welded steel fabric reinforcement shall comply with BS. 4483
- iv) BS. 8110, the structural use of reinforced concrete in buildings.

All steel reinforcement shall be supplied by an approved manufacturer; and the contractor may be required to obtain a manufacturer's test certificate in respect of steel reinforcement supplied. In the absence of such a test certificate, the contractor may be required to submit samples to be tested at the contractor's expense in such manner as to comply with BS 8110 requirements.

The steel shall be stored so that it is kept clean and reasonably free from rust.

The placing of all reinforcement shall be checked by the Engineer and in no circumstances is concrete to be deposited around any steel that has not been passed. At least twenty-four hours' notice shall be given to the Engineer that reinforcement will be ready for inspection.

2.10 Bending and fixing of reinforcement

All bending, cutting and fixing to be in compliance with the British Standard code of Practice, BS 8110 and BS 4466 Bending schedules are incorporated in the contract drawings.

The number, size, form and position of all reinforcement shall unless otherwise directed or permitted by the Architect, be strictly in accordance with the drawings. Bars shall be of the required lengths, and lapping, except where indicated on the drawings, is not permitted unless approved by the Engineer.

Overall dimensions shall not be exceeded and shall not be less than 6mm below the required dimensions. The sizes of links and the like shall be within tolerance of 3mm under or over the specified dimensions. Any tolerance in the top length of the bar as cut shall be taken up in the end hooks or other approved portions of the bar. The internal radius of the bends at corners of links and the like shall equal half the diameter of the bar embraced by the link.

Laps in bars of random lengths shall be staggered in such a way that no more than 1/3 of bars having same number are to be lapped in the same section.

The steel reinforcement shall be assembled and fixed in the form of a rigid cage. To prevent displacement before or during concreting the bars shall be secured to each other with approved wire. Concrete distance blocks shall, unless otherwise directed, be used between the reinforcement and the bottom and sides of the forms to ensure correct concrete cover to the bars, as specified on the drawings. The specified cover shall be provided and maintained within the specified tolerance.

The minimum clear distance between adjacent bars shall be 25mm horizontally and 25mm vertically. Spacer bars shall be inserted at such intervals that the bars do not perceptibly sag.

Great care must be taken to ensure the correct positioning of beam and column starter bars and to secure projecting bars against displacement both during and after concreting.

At the time of fixing and when concrete is being placed, all reinforcement shall be free from oil, paint, grease excessive dust and scale or any other coating, which would destroy its bond with the concrete

2.11 Formwork to produce a fair face board finish (wrought formwork)

Formwork described as wrought shall be constructed of or lined with 100mm wide planed boards well cramped together or plywood to leave a fair smooth finish in the exposed concrete face when the shuttering is removed.

2.12 Construction and Movement joints

The positioning, type and frequency of construction joints are to conform to requirement of BS 8110 and be approved by Engineer. Methods of forming movement joints to follow drawings and the requirements of BS 8110.

2.13 Concrete grades

Only designed concrete mixes complying with BS 5328 shall be used. Concrete must comply with the requirements set out in the following table according to the grade (This is for guidance only)

GRADE	NOMINAL MIX	MAX.SIZE OF COARSE AGGREGAT E	MAX WATER CEMENT RATIO BY WEIGHT	MINIMU CRUSHIN STRENG WORKS CUBES (N	TH OF TEST
30	1:1:2	20mm	0.50	20	30
25	1:11/2:3	20mm	0.55	17	25.5
20	1:2:4	20mm	0.60	14	20
15	1:3:6	25mm	0.60	8	14
10	1:4:8	40mm	0.60	-	10

2.14 Concrete Production, Supervision and Tests

Concrete should be produced in accordance with BS 5328 which requires tests to be made on constituent materials in accordance with relevant British Standards and control tests be made on concrete to ensure compliance with specified requirement. Engineer will in addition approve procedures for placing, compacting, curing and working in hot weather.

Concrete should meet appropriate requirements specified in BS 5328 for

- i) Characteristic compressive strength
- ii) Specified mix proportions
- iii) Maximum and minimum cement content
- iv) Maximum free water/cement ratio
- v) Workability
- vi) Air content of concrete
- vii) Temperature of fresh concrete
- viii)Density of fully compacted concrete

2.15 Preliminary cube tests

The contractor shall specify the sources from which the aggregate will be obtained and shall deliver at his own cost sufficient materials enable preliminary cube tests to be carried out and approved by the Engineer. The Contractor will be responsible for submitting his proposals for the concrete mix proportions together with aggregate grading curves to the Architect for approval and for the payment of the fees of an approved Testing Authority in carrying out the crushing tests. The strength of the preliminary cubes must be a minimum of 33% above those in the above table, which is the minimum works strength.

The approval of any mix by the Engineer will not relieve the contractor of the responsibility for ensuring that all concrete used in the works obtain the minimum works strength shown above.

In proportioning the concrete, the quantity of cement shall be determined by weight and the quantities of fine and coarse aggregate by either volume or weight, due allowance being made for the moisture content of the aggregate.

Only sufficient water shall be added to the cement and aggregate during mixing to produce a concrete having sufficient workability to enable it to be well consolidated, to be worked into the corners of the shuttering and around the reinforcement, to give the specified surface finish and to have the specified strength. When a suitable amount of water has been determined the resulting consistency shall be maintained throughout the corresponding parts of the work and the slump test or compaction factor test shall

should the slump be more than 65mm as determined by the standard slump test should the compaction factor be more than 0.87 as determined by the standard slump test as described in BS. 1881.

Should the Contractor wish to use patent, plasticising compounds or other admixes, the shall be approved by the Engineer and be used in accordance with the manufacturer's publications.

216 Work cube tests

the date of manufacture and identification mark. A record shall be kept for each of cubes showing the position in the works which the concrete represents, the manufacture, the mixture and slump of the concrete, particulars of the cement aggregate used, a statement of whether or not the cubes were vibrated and other mation relating to the subsequent history of the cubes.

The cube shall be made, cured and tested in accordance with the requirements of BS.

1881 when directed by the Engineer and in his presence or that of the Approved Testing

Authority. A sample of concrete shall be taken at random on eight separate occasions

during each of the first 5 days of using that mix.

Thereafter at least one sample shall be taken on each day any concrete of that particular mix is used. From each sample four cubes shall be made two for testing at 7 days and two for testing at 28 days. The works cube results shall be examined both individually and in consecutive (but not overlapping) sets of four, for which the average and the range of each set are calculated.

The mix proportions shall be modified to increase the strength if, in the first and consecutive (but not overlapping) sets, any of the following conditions are not satisfied:

- Not more than 2 individual results of the 40-cube test should fall below the specified work cube strength.
- ii) No value of the range in any set should exceed 4 times the designed standard deviation.
- iii) Not more than one set should have an average, which is less than the specified strength plus 1.1/3 times the designed standard deviations.

iv) No value of the average for any set should be less than the specified strength plus the designed standard deviation.

After 10 consecutive sets of results have been obtained the overall average and the standard deviation of the 40 results shall be calculated and any appropriate modifications made. Subsequently, if any of the foregoing conditions are not satisfied, the overall average and the standard deviation of the previous consecutive 40 results, including the non-complying sets, should be calculated and the appropriate steps taken if the overall average strength twice the standard deviation is less than the specified work cube strength.

2.17 Quality control requirements

2.17.1 Supervision

A competent person shall be employed whose duty shall be to supervise all stages in the preparation and placing of the concrete. He shall supervise all tests on the materials and cubes and the maintenance and calibration of mixing and measuring plant. This person shall also be responsible for keeping an accurate record of the dates on which concrete is poured and where. Where the Engineer is not satisfied with the performance of concrete supervisor he shall recommend to the Architect for removal from site.

2.17.2 Batching and mixing plant

The quantities of cement and of fine and coarse aggregate shall be determined by weight. The amount of water added shall be measured, allowance being made for the water content of the aggregate. The accuracy of weighing and measuring equipment shall be 2.½%. Measuring equipment for water shall be maintained in a clean serviceable condition.

2.18 Workmanship

2.18.1 Placing of reinforcement

Reinforcement shall be accurately placed and maintained in the position described on the drawings or elsewhere to the entire satisfaction of the Engineer. Bars intended to be in contact at passing points shall be securely wired together with 16 gauge annealed soft iron tying wire.

Binders and the like shall tightly embrace the bars and any slackness or misplacement of bars shall be rectified before the Engineer is called for inspection. Spacers of

approved design shall be used for ensuring the correct positioning of the bars and **diagonal** wiring shall be provided to ensure rigidity of all assembled units of **reinforcement**. The vertical distance required between successive layers of bars in **beams** or similar members shall be maintained by the provision of mild steel spacer **bars** inserted at such intervals that the main bars do not perceptibly sag between **spacers**. The rates for reinforcement must include for all requisite wiring, spacers and **precast** concrete blocks to maintain the required spacing and cover. All bars are to be **bent** in accordance with BS 4466: 1969.

Cover of concrete to the reinforcement shall be, unless shown otherwise: -

Columns
Base
- 50mm minimum to main bars
50mm minimum to main bars
25mm minimum to main bars
15mm minimum to main bars
Wall
- 25mm minimum to main bars
70mm minimum to main bars
100mm minimum to main bars

Splices to future work shall be covered in a manner approved by the Engineer to prevent rusting and deterioration. Before any concreting is carried out the approval of the Engineer as to the correctness of the fixed reinforcement shall be obtained but such approval shall not remove the responsibility for the correctness of the placing from the contractor. During concreting a competent steel fixer shall be in attendance on the concrete gang to make minor adjustments to the position of bars should they become displaced.

2.18.2 Formwork generally

Formwork design and construction should take into account of safety and surface finish required and to conform to requirements of BS 8110 and BS 5975. Dimensional deviations of insitu concrete shall be to limitations set in BS 5606.

All formwork and moulds shall be rigidly constructed to accurate shape and dimensions as described on the drawings and to requirement of BS 5975. Timber shall be well seasoned, free from loose knots and be of a kind and thickness that will avoid deflection and warping, remaining true to line and level. Faces in contact with the concrete shall be free from adhering grout, projecting nails, splits or other defects and shall be coated with an approved mould oil so as to prevent grout adhering to them, care being taken to prevent such coatings from any contact with the reinforcement.

Formwork shall be braced and strutted to prevent deformation under the weight and pressure of the wet concrete, construction loads, winds and other forces. The bottoms of beam boxes shall be erected with an upward camber so as to prevent downward defection. Maximum tolerances, which will be permitted in the finished concrete work, are to BS 5606 as follows: -

Dimensions less than 3m + 3mm

Dimensions between 3m & 15m ± 6mm Dimensions over 15m ± 10mm

Joints in the moulds of formwork shall be carefully made so as to prevent leakage of **cement grout** and particular care shall be exercised to this respect for moulds in which it **is intended** to place vibrated concrete. Openings in the formwork for inspection of the **inside and** for the escape of water used for washing out accumulated debris shall be **formed in** such a manner that they can effectively be closed before placing the **concrete**.

Formwork connections and joints shall be constructed so as to permit easy removal of the formwork, but shall be so secured as to retain correct shape under pressure exerted to the wet concrete during placing, vibration, setting and hardening. If any wire ties passing through the concrete or bolts are used, measures shall be taken to prevent rust, sains on the finished work and any holes left by the removal of such ties shall be made to provided for top faces of sloping work and anchored to prevent floatation, but this shall apply only where the slope exceeds 15 degrees. The formwork for beams and slabs shall be erected so that the sides of the beams and soffits of the slabs can be removed without disturbing the beam bottoms. Props for an upper storey shall be placed directly over these in the storey immediately below and the lowest prop shall bear upon work sufficiently strong to carry this load.

If formwork of columns; walls and other deep sections is erected to the full heights, one side shall be left open and shall be built up in sections as placing of the concrete proceeds. Before concreting, bolts and fixings shall be in position. Cores and other devices used for the forming of openings, holes, pockets, chases, recesses and other cavities shall be fixed to the formwork and no subsequent holes shall be cut in any concrete without the Architect's approval

218.3 Mixing of Concrete

All concrete shall be mixed in batch mixing machines. Hand mixing shall not be permitted. All mixing machines shall be of the fixed drum types and not smaller in size

than 0.40/0.28 CM drum mixers will not be permitted. The mixer shall be of the type equipped with an accurate measuring device designed so that no unauthorised person can tamper with the valve or vary the quantity of water delivered once this has been approved and set. The mixing procedure to be adopted by the Contractor shall be approved by the Architect.

Mixing of each batch shall be approved by the Architect. Mixing of each batch shall continue until the concrete is uniform in colour and, in any case, for not less than two minutes after all the materials and the water is used in the drum. The entire contents of the drum shall be discharged before the materials for the succeeding batch are fed into the drum. Upon completion of the day's mixing, the drum shall be thoroughly cleaned free of adhering concrete.

2.18.4 Distribution of Concrete

The concrete shall be distributed from the mixer to the position required by approved means, which do not cause separations or otherwise impair the quality of the concrete. All equipment shall be cleaned before commencing mixing and distribution and be kept free from set concrete. All concrete must be in position and consolidated before the initial set is commenced and the contractor shall ascertain the initial setting time for the brand of cement being used and ensure that his means of distribution are such that it is impossible for concrete to have set prior to placing.

Distribution by means of mortar pane generally will be permitted, but for important large structures such as slabs, large beds and elsewhere instructed by the Engineer the minimum requirements shall be wheelbarrows, ramps and runaways over the reinforcement.

2.18.5 Placing of Concrete

Before placing of concrete commences, the formwork shall be examined and any accumulated water and rubbish lying therein shall be removed. The concrete shall be placed as near to its permanent position as is practicable and shall not be worked along the formwork to that position. It shall not be dropped from a height not handled in a manner likely to cause separation of the aggregate or loss of the cement matrix. In columns and other similar members, the bottom shall be first filled to a depth of between 150mm and 200mm with a cement mortar consisting of sand, cement and water with the sand and cement in the same proportion as that specified for the general mix in that member. The mortar shall have a consistency such that it will work up the formwork and fill in spaces, which may occur due to close spacing of reinforcement in

This mortar must be placed immediately in advance of the concrete and shall be allowed to attain its initial set before placing the main concrete for the member. Layer of concrete, while being placed, shall be consolidated by the approved methods of ramming/ tamping or mechanical vibration so as to form a dense material free from honeycombing water and air holes or other blemishes. Concrete shall be placed continuously until completion of the part of the work between the specified construction joints. Approved working joints shall be made whenever specified concrete placing occurs. In general, concrete shall be placed in a single operation to the full thickness and depth of slabs, beams and similar members and, in any case, shall be placed in horizontal layers not exceeding 750mm deep in walls, columns and other similar members.

2.18.6 Vibration

Mechanical vibrators or hand tamping must be used in placing all reinforced concrete work unless the Engineer has approved specially designed mixes and preliminary work cube test results have been obtained without their use. Rates for all reinforced concrete work include for this. Where mechanical vibration is required the contractor shall allow for using two vibrators at any one time.

2.18.7 Working joints

Working joints shall be of an approved shape and placed at right angles to the axis of the member. The contractor shall submit his proposals for the design and position of all joints on a drawing to the Architect for his approval well before construction is commenced. The position of day to day working joints may be determined so as to meet the requirements of the contractor's concreting programme.

Wherever new concrete is to be placed against concrete that has hardened, the face of the old concrete shall be cut back not less than 20mm and all-loose particles removed. The face shall then be wire brushed and thoroughly cleaned with water and then coated with a neat cement grout immediately before placing the concrete shall be well rammed and compacted against the prepared face before the neat cement grout sets.

2.18.8 Protection of Concrete

Newly placed concrete shall be protected by approved means from rains, sun and dry winds, and exposed faces shall be kept moist with polythene sheets or hessian coverings or other approved means for at least 7 days. Under no circumstances shall concrete be worked upon until it has reached a cube strength of 140kg per square

centimetre. Immature concrete shall be protected from damage by falling debris excessive loading vibrations, running or standing water, abrasives or other influences likely to impair the quality or strength of the finished work.

2.18.9 Concrete in Excavation

The length and widths of the excavation shall be as necessary for the proper construction of work below ground and in accordance with the Preambles contained in the section 'Excavation and Earthwork'. Blinding concrete has been measured for the net width required for concrete structure and foundations below ground level. Blinding has not been measured to the extra width, if any required for working space. The depths shall be decided by the Architect where these are not given on the drawings. Any obstructions or unusual solids encountered during the excavation shall be reported to the Architect and dealt with as then instructed.

2.18.10 Removal of formwork

The period elapsing between placing the concrete and removing the formwork shall be sufficient to allow the concrete to mature to the extent of being able to maintain its own weight and any constructional and structural loads imposed without damage. The Architect's approval for the removal of the formwork shall be as tabulated below:

Posit	ion of Formwork _	Minimum striking Time		
_	Vertical sides of wall, columns, beams, etc	2 days		
left)	Soffits of beams & slabs (props	7 days		
_	Slab and props	14days		
	Bottom boards of piles _ _(intermediate support left in	12 days		
5	Soffits of beams under _ 6m span	16 days		
	Additional: Period for _ each 0.6m span in excess _			
	of 6m span with a _ maximum of 28 days	1 day		

The formwork shall be removed in all cases by gradual easing without jarring and the process shall be such that the sharp edges of the concrete are not chipped and spilled away. If the imposition of a load is anticipated, props shall be provided in an approved manner after removal of the formwork and before the imposition of the loads.

21811 Surface finishes

Upon removal of the formwork any honeycombing or damaged surfaces or other reperfections shall be reported to the Architect. No surfaces shall be repaired or cherwise treated until an inspection has been carried out by the Architect and his instructions or approval to remedial work (if any) have been given or obtained.

Concrete surfaces, which are to be plastered or rendered, are to be hacked or roughened by an approved means to form a key.

Sam formwork is measured for all surfaces requiring support and subsequently concealed or plastered.

219 Precast Concrete

Where precast concrete members are specified, these shall be constructed in moulds of approved design and samples from the moulds shall be approved before quality production of the member is commenced to requirement of BS 8110. Large precast members shall be lifted only at points, which will not damage the member, and if necessary temporary bracing of timber shall be used to case the member until it is in position. Small lintels and other small members may be cast in-situ at no extra cost at the contractor's option. Allowance must in all cases be made for any extra reinforcement to counteract temporary stresses whilst handling, transporting and hoisting precast concrete members. Moulds for precast units described as finished fair on exposed surfaces shall be lined with plywood or hardboard to leave a fair finish on the exposed concrete face when the mould is removed.

The concrete shall be of the grade specified on the drawings but with maximum aggregate size 12mm and shall be thoroughly vibrated in the moulds and shall not be removed until seven days after placing the concrete.

Care must be taken that no concrete is allowed to become prematurely dry and the fresh concrete must be carefully protected from the rain, sun and wind by means of 'Sisal Kraft' paper, well-wetted sacking, wet sand or other approved means. This protective layer and the concrete itself must be kept continuously wet for at least seven days after the concrete has been placed.

Prices for precast concrete shall include for all moulds, reinforcement as specified, hoisting and fixing in the position required. Bedding and pointing as described and temporary props and other necessary supports.

2.20 Sub-contractors work Incorporated in the Structure

It shall be the contractor's responsibility to co-ordinate sub-contractors and others for **incorporating** any electrical conduit, plumbing fixtures and pipes, bolt holes, etc., in the **concrete** members as required and shown on the drawings. The contractor shall submit **details** of cable and pipe runs to the Architect before the work is put in hand and shall **have** the Architect's approval of the layout. No holes or chases shall be cut on concrete without the approval of the Architect.

2.21 General

No holes or chases are to be cut in any part of the reinforced concrete construction without first consulting the Architect. No part of the reinforcement shall be used for conducting electrical current. Notice must be taken of any appearing on the drawing and not mentioned in these preambles.

2.22 Movements and Separation Joints

Movement joints shall comprise of Bitumen impregnated soft board or similar approved.

Joints topping are to be 'Plastic' or similar approved hot poured rubber bitumen compound.

Pointing to vertical joints is to be 'Plastic joint' or similar approved bituminous putty applied with a gun. Joints are to be at least 12mm deep and the gap is to be formed either by raking cut (in the case of expanded polystyrene) or by temporary wooden battens of the required width and 12mm deep.

2.23 Mortise and Pockets

Mortise or pockets for holding down bolts or dowels shall be formed in concrete to the size and shapes shown on the drawings. Mortises shall be formed by the use of expanded polystyrene blocks of the required shapes and sizes carefully and accurately placed and maintained in position whilst the concrete is poured.

Rates for mortises shall include for all necessary templates and raking out and the complete removal of the polystyrene when the concrete has set. No deduction from concrete quantities has been made for any mortise, pocket or any other void in the concrete of 0.05 cubic metres or less and the Contractor may take this into account when pricing. Grouting up has been measured separately.

3. WALLING

3.1 Water

Water shall be as previously specified in 'concrete work.'