REPUBLIC OF CAMEROON
Peace-Work-Fatherland

MINISTRY OF LIVESTOCK FISHERIES AND ANIMAL INDUSTRIES

REPUBLIQUE DU CAMEROUN
Paix-Travail-Patrie

MINISTERE DE L'ELEVAGE, DES PECHES ET DES INDUSTRIES ANIMALES

OPEN INTERNATIONAL COMPETITIVE BIDDING, ISLAMIC DEVELOPMENT BANK (IDB) MEMBER COUNTRIES, N°29/ICB/MC/MINMAP/CCPM-BEC/2018 OF 4/12/2018 FOR THE CONSTRUCTION OF 7 DEMONSTRATION AND MULTIPLICATION PLOTS AND ITS COMPLIMENTARY WORKS FOR THE LIVESTOCK AND FISHERIES DEVELOPMENT PROJECT (LIFIDEP) IN TWO (02) LOTS

Country: Cameroon

Project: Livestock and Fisheries Development Project (LIFIDEP).

Financing: ISLAMIC DEVELOPMENT BANK (IsDB) /GOVERNMENT OF CAMEROON (GOC)

Project Identification: PCMR 0102:
Financing Agreement N^{O} 2CM0065
Package N^{O} 4

Issue Date: 4/12/2018

REPUBLIC OF CAMEROON
Peace-Work-Fatherland

MINISTRY OF LIVESTOCK FISHERIES AND ANIMAL INDUSTRIES

IsDB
البنك الإسلامي للتنمية
Islamic Development Bank

REPUBLIQUE DU CAMEROUN
Paix-Travail-Patrie

MINISTERE DE L'ELEVAGE, DES PECHES ET DES INDUSTRIES ANIMALES

SPECIFIC PROCUREMENT NOTICE

OPEN INTERNATIONAL COMPETITIVE BIDDING ISLAMIC DEVELOPMENT BANK (IDB) MEMBER COUNTRIES, N° 29/ICB/MC/MINMAP/CCPM-BEC/2018 OF 4/12/2018 FOR THE CONSTRUCTION OF 7 DEMONSTRATION AND MULTIPLICATION PLOTS AND ITS COMPLIMENTARY WORKS FOR THE LIVESTOCK AND FISHERIES DEVELOPMENT PROJECT (LIFIDEP) IN TWO (02) LOTS

.Financing: ISLAMIC DEVELOPMENT BANK (IsDB)/GOVERNMENT OF CAMEROON (GOC)
(N° 2CM0065)

1. The Government of the Republic of Cameroon has received funding from the Islamic Development Bank (IDB) towards the cost of the Livestock and Fisheries Development Project (LIFIDEP) for the North West Region of Cameroon and the Livestock and Fisheries Development Project (LIFIDEP) intends to apply a portion of this financing to eligible payments under the Contract for the construction of 7 demonstration and multiplication plots and its complimentary works in the North West Region.

2. This Invitation for Bids follows the General Procurement Notice for this Project that appeared in the UN Development Business website dated 7th January 2014, the IsDB website dated 7th January 2014 and Cameroon Tribune dated 10th January 2014.

3. Participation in this invitation for bids is open to Member Country firms of the Islamic Development Bank (IsDB), eligible under IsDB financing.
Besides the clause on boycott as per the Islamic Conference Organization, the Arab League and the African Union Regulations, shall be excluded from the tender, any Contractor that falls under the following provisions:
- Enterprises under suspension because of the cancellation of a contract, in keeping with article 191 of decree N° 2018/366 of 20 June 2018 bearing on Cameroon Public Contracts Code,
- Non-legally and financially autonomous public enterprises which are not managed in keeping with commercial law rules.

4. **The Livestock and Fisheries Development Project (LIFIDEP)**, invites sealed bids from eligible and qualified bidders for the construction of 7 demonstration and multiplication plots and its complimentary works in the North West Region as per the following two lots :

   Lot 1:
   a) The construction of 7 demonstration and multiplication centers (class room and office units) in Fundong, Tadu, Misaje/Dumbu, Santa (Coffee Estate), Wum (WADA) Gwofon and Babungo
   b) Construction/renovation of 7 divisional veterinary clinics in Fundong, Kumbo, Nkambe, Bamenda II, Wum, Mbengwi and Bamunka
   c) Construction of 20 sub divisional veterinary centers in Fundong, Belo, Jakiri, Elak, Nkor, Nkambe, Ndu, Misaje, Ako, Mundum, Pinyin, Bambui, Wum, Benakuma, Zhoa, Batibo, Andek, Bambalang, Bafanji and Babessi.
   d) Construction of 5 veterinary control posts in Abonshie, Sabon Gari, Matazem, Bawuru and Esu
   e) Construction of 50 meat sale slabs in as follows: Fundong, Belo, Mbessa, Njinikom, Bua-Bua, Kumbo, Jakiri, Mbiame, Tolon, Ibal, Kevu, Tatum, Nkor, Lasin, Nkambe old-market, Binka market, Ndu, Ntumbaw, Misaje, Dumbu, Ako, Sabon Gari, Mendankwe, Mile 8, Ngomgham, Nkwen, Bafut market, Bali(Njenka), Santa, Pinyin, Akum, Bambui Market, Sabga, Big Babanki, Wum, Befang, Benakuma, Weh, Fura-awa, Acha-Tugi, Guzang, Widikum, Andek, Oshie, Bamuka, Bamessing, Balikumbat, Babungo, Babessi and Baba.
   f) Construction of a fish farming center in Baforkum (Bambui)
   g) Construction of 15 small slaughter houses in: Fundong, Fonfuka, Jakiri, Elak, Nkambe, Misaje, Bali, Njong, Bambili, Benakuma, Bafmeng, Acha-Tugi, Nkun, Bamunka and Babungo.

   Lot 2:
   a) **The construction and equipment of 3 poultry feed mills in:** Kumbo, Nsongwa and Nkwen.
   b) **Construction of a fish feed mill in:** Nkwen
   c) **Construction of modern slaughter house in :** Mendangkwe

   A candidate can bid for both lots as a unique candidate or joint venture, consortium, or association (JVCA). Each lot will be awarded to a bidder who satisfies all the qualification requirements of the lot. A bidder can be awarded both lots.

5. Bidding will be conducted through International Competitive Bidding/IsDB Member Countries according to "Guidelines for Procurement of Goods and Works under Islamic Development Bank Financing, May 2009 (updated 2012)", and is open to all eligible bidders as defined in the Guidelines as per 3 above,
6. Interested eligible bidders who may need further clarification could do so in writing to the **Project Coordinator of LIFIDEP**, LIFIDEP Building Ayaba street, P.O Box 142, Mankon Bamenda, Téléphone : (+237) 691 046 397, e-mail: lifidepnwr@gmail.com,

   at least fifteen (15) days before the closing date for submission of bids.

Qualification requirements include; (a) financial Standing, (b) experience and technical capacity.

7. A complete set of the Bidding Documents in English can be consulted during working hours, at the Secretariat of the **Project Coordinator of LIFIDEP**, LIFIDEP Building Ayaba street, P.O Box 142, Mankon Bamenda, **Cameroon** as soon as this notice is published, or obtained upon presentation of receipt of payment of a non-refundable sum of **one hundred Thousand (100,000)** FCFA, payable into account **Number N° 33598845001-20** in the name of << SPECIAL ACCOUNT SAC-ARMP> in any of BICEC branches in Cameroon. Such a receipt shall identify the payer as representing a Contractor or "joint-venture" willing to participate in the bid.

8. Bids shall be valid for one hundred and twenty (120) days from the date of submission.

9. The execution time frames shall be 12 months per lot. Where a bidder wins both lots, the execution times shall run concurrently:

10. Bids shall include a bid security (Provisional Bank Guarantee or bid bond), issued in keeping with the tender model by a first category banking institution or any other financial institution approved by the Cameroon Ministry in charge of Finance.
    It shall stand at :
    Lot 1: 52 500 000 (Fifty two million five hundred thousand) FCFA
    Lot 2: 34 500 000 (thirty four Million five hundred thousand) Francs CFA and be valid for a period of **one hundred and fifty (150) days** with effect from the tender-submission deadline.

    A provisional guarantee issued by a non-Cameroon-based banking institution should designate a local bank approved by the Ministry in charge of Finance, Cameroon as a correspondent bank to make the guarantee operative.
    The absence or non-compliance of the provisional guarantee with the tender model shall lead to a rejection of the corresponding offer.

11. Each bid written in English or French and in seven (07) sets, comprising one (01) original and six (06) copies labelled as such, should reach the **Secretariat of the Project Coordinator, LIFIDEP Building Ayaba Street,** Bamenda, **Cameroon,** on or before **the 5 February 2019 at 10.00H local time (GMT+1).** It should be labelled as follows:

OPEN INTERNATIONAL COMPETITIVE BIDDING ISLAMIC DEVELOPMENT BANK (IDB) MEMBER COUNTRIES N°29/ICB/MC//MINMAP/CCPM-BEC/2018 OF 4/12/2018 FOR THE CONSTRUCTION OF 7 DEMONSTRATION AND MULTIPLICATION PLOTS AND ITS COMPLIMENTARY WORKS FOR THE LIVESTOCK AND FISHERIES DEVELOPMENT PROJECT (LIFIDEP) IN TWO (02) LOTS (LOT(S) NO....)

.Financing: ISLAMIC DEVELOPMENT BANK (IsDB)/GOVERNMENT OF CAMEROON (GOC)

<<TO BE OPENED ONLY DURING THE TENDERS BOARD BID-OPENING SESSION>>

12. Bids shall be opened on **the 5 February 2019** at **11.00H** local time (GMT+1) by the. LIFIDEP Special Tenders' Board in the Board Room Ground Floor LIFIDEP Building, **Ayaba Street, Bamenda Cameroon** in the presence of bidders or their duly authorized representatives having a perfect knowledge of the file.

Only one person can represent a bidder, even in the case of a Joint-Venture.

For all acts of corruption, kindly call or send an SMS to MINMAP at these numbers: (+237)673 20 57 25/ (+237)699 37 07 48

Bamenda, the 4 December 2018
Pius Mbipeh
Project Coordinator

Copy
- IsDB (for publication)
- Jeune Afrique Economie
- Cameroon Tribune (for Publication)
- ARMP (for publication and archiving)
- Chairperson LIFIDEP Special Tenders' Board (for information)
-Notice boards (for information).

REPUBLIC OF CAMEROON
Peace-Work-Fatherland

MINISTRY OF LIVESTOCK FISHERIES AND ANIMAL INDUSTRIES

IsDB
البنك الإسلامي للتنمية
Islamic Development Bank

REPUBLIQUE DU CAMEROUN
Paix-Travail-Patrie

MINISTERE DE L'ELEVAGE, DES PECHES ET DES INDUSTRIES ANIMALES

AVIS D'APPEL D'OFFRES

APPEL D'OFFRES INTERNATIONAL OUVERT, PAYS MEMBRES DE LA BANQUE ISLAMIQUE DE DEVELOPPEMENT(BID) N°:29/AOIO/PM/MINMAP/CCPM-BEC/2018 DU 4/12/2018 POUR LA CONSTRUCTION DE 7 CENTRES PILOTE DE DEVELOPEMENT DES PATURAGES ET TRAVAUX COMPLEMENTAIRES POUR LE PROJET DE DEVELOPPEMENT DE L'ELEVAGE ET DE LA PECHE (LIFIDEP) EN DEUX (02) LOTS

Financement: BANQUE ISLAMIQUE DE DEVELOPPEMENT (IsDB)/GOVERNEMENT DU CAMEROON (GOC) (N° 2CM0065)

1. Le Gouvernement de la République du Cameroun a reçu des fonds de la Banque Islamique de Développent (BID) pour le financement du Projet de Développement de l'Elevage et de la Pêche(LIFIDEP) pour la Région du Nord-Ouest. Le Projet compte utiliser une partie de ce financement pour le paiement par contrat, de la construction de 7 centres pilote de Développement des pâturages et travaux complémentaires dans la Région de Nord-Ouest.

2. Cet avis d'Appel d'Offres, découle de la publication de l'Avis Général de passation des marchés de ce projet apparu dans le site web du « UN Development Business » du 7 Janvier 2014, le site web de la Banque Islamique du Développent du 7Janvier 2014 et le Cameroun Tribune du 10 Janvier 2014.

3. La participation à cet appel d'offres est ouverte aux pays membres de la Banque Islamique de Développement(IsDB), éligibles au financement de la dite banque. En plus de l'article sur le boycott et règles de l'Organisation de la Conférence islamique, la Ligue des Pays Arabes et Union Africaine, seront exclues de cet appel d'offres toute entreprise qui tombe sur le coup des sanctions suivantes :
   -les entreprises sous suspension suite à l'annulation des marchés conformément à l'article 191 du décret N° 2018/366 du 20 Juin 2018 portant sur code des Marchés Publics du Cameroun,
   -Les entreprises publiques ou parapubliques sans autonomie financière et non régies par les lois commerciales.

4. **Le Projet de Développement de l'Elevage et de la Pêche**(LIFIDEP), invite par la présente, les entreprises éligibles à présenter les offres pour la construction de 7 centres pilote de Développement de pâturage et travaux complémentaires selon les deux lots ci-après :

   Lot 1 :

   a) La construction de 7 centres pilote de Développement de pâturage (salles de classe et bureaux), à Fundong, Tâdu, Misaje/Dumbu, Santa (Coffee Estate), Wum(WADA) Gwofon et Babungo

   b) La construction/rénovation de 7 cliniques vétérinaires départementales à Fundong, Kumbo, Nkambe, Bamenda II, Wum, Mbengwi et Bamunka

   c)La construction de 20 Centres Zootechnique vétérinaires à Fundong, Belo, Jakiri, Elak, Nkor, Nkambe, Ndu, Misaje, Ako, Mundum, Pinyin, Bambui, Wum, Benakuma, Zhoa, Batibo, Andek, Bambalang, Bafanji et Babessi.

   d) La construction de 5 postes de contrôle vétérinaires à Abonshie, Sabon Gari, Matazem, Bawuru et Esu

   e) La construction de 50 halls de vente de viandes à Fundong, Belo, Mbessa, Njinikom, Bua-Bua, Kumbo, Jakiri, Mbiame, Tolon, Ibal, Kevu, Tatum, Nkor, Lasin, Nkambe old market, Binka market, Ndu, Ntumbaw, Misaje, Dumbu, Ako, Sabon Gari, Mendankwe, Mile 8, Ngomgham, Nkwen, Bafut market, Bali(Njenka), Santa, Pinyin, Akum, Bambui Market, Sabga, Big Babanki, Wum, Befang, Benakuma, Weh, Fura-awa, Acha-Tugi, Guzang, Widikum, Andek, Oshie, Bamuka, Bamessing, Balikumbat, Babungo, Babessi et Baba.

   f) La construction d'un centre d'alevinage à Baforkum (Bambui)

   g) La construction de 15 centres d'abbattage du bétail à Fundong, Fonfuka, Jakiri, Elak, Nkambe, Misaje, Bali, Njong, Bambili, Benakuma, Bafmeng, Acha-Tugi, Nkun, Bamunka et Babungo.

   Lot 2:

   a) **La construction de 3 unités de fabrique d'aliments pour volaille à** Kumbo, Nsongwa et Nkwen.
   b) **la construction d'une unité de fabrique d'aliments pour poisson à** Nkwen
   c) **la construction d'un abattoir moderne à** Mendangkwe

   Un soumissionnaire peut soumissionner seul ou en groupement, pour tous les lots. Chaque lot sera attribué à un soumissionnaire s'il satisfait à toutes les exigences de qualification de ce lot. Un soumissionnaire peut être adjudicataire de tous les deux lots

5. L'Appel d'offre se fera par voie d'Appel d'Offres International Ouvert aux Pays Membres de la Banque Islamique de Développement (BID) selon les "Guidelines for Procurement of Goods and Works under Islamic Developpement Bank Financing, May 2009", et est ouvert à tous soumissionnaires éligibles comme définis en 3 ci-dessus.

6. Les soumissionnaires éligibles, qui ont besoin de plus de clarifications peuvent les obtenir par écrit auprès du **Coordonnateur du Projet LIFIDEP**, Immeuble LIFIDEP, Ayaba Street, BP 142 Bamenda, Cameroon,
   Téléphone : (+237) 691 046 397 E-mail: lifidepnwr@gmail.com
   au moins quinze (15) **jours** avant la date limite de remise des offres.

Les critères de qualification comprennent (a) la situation financière (b) l'expérience et capacités techniques,

7. Le Dossier d'Appel d'Offres en anglais peut etre consulté aux heures ouvrables au **Secrétariat du Coordonnateur du Projet, Immeuble LIFIDEP, Ayaba Street Bamenda Cameroon** dès la publication du présént avis, ou obtenu sur présentation d'une quittance de versement de la somme non-remboursable de **cent mille (100,000) FCFA,** payable dans des agence BICEC Cameroun au << compte Spécial CAS ARMP N° **33598845001-20 >>.** La quittance doit identifier le payeur comme représentant de l'entreprise ou groupement désireux de participer à l'Appel d'Offres.
8. La période de validité des offres est de cent vingt (120) jours à partir de la date limite de remise des offres.
9. Les délais d'exécution seront de douze(12) mois pour chaque lot. Au cas où un soumissionnaire serait adjudicataire de tous les deux lots, les délais courront simultanément:
10. Chaque offre doit obligatoirement être accompagnée d'une caution de soumission selon le modèle émis, par une banque de premier ordre ou organisme financier agrée par le Ministère chargé des Finances de la République du Cameroun, d'un montant **de :**
    Lot 1: 52 500 000 (Cinquant deux million cinq cent mille) FCFA
    Lot 2: 34 500 000 (Trente quatre Million cinq cent mille) Francs CFA ayant une période de validité de **cent cinquante(150) jours** à partir de la date limite de remise des offres.

Une caution délivrée par une institution bancaire non-camerounaise, devra désigner une banque camerounaise approuvée par le Ministère chargé des Finances de la République du Cameroun comme correspondant pour rendre exécutoire ladite caution.
L'absence ou une caution non conforme au modèle du dossier d'appel d'offres engendrera le rejet de l'offre.

11. Chaque offre rédigée en anglais ou en français en sept (7) exemplaires dont un(1) original et six (6) copies marqués comme tels, devra parvenir au Secrétariat du **Coordonnateur du Projet, Immeuble LIFIDEP, Ayaba Street, Bamenda, , Cameroun, au plus tard le 5 Février 2019 à 10.00 H, l'heure locale(GMT+1) et devra porter la mention :**

APPEL D'OFFRES INTERNATIONAL OUVERT, PAYS MEMBRES DE LA BANQUE ISLAMIQUE DE DEVELOPPEMENT N°:29/AOIO/PM/MINMAP/CCPM-BEC/2018 DU 4/12/2018 POUR LA CONSTRUCTION DE 7 CENTRES PILOTE DE DEVELOPPEMENT DES PATURAGES ET TRAVAUX COMPLEMENTAIRES POUR LE PROJET DE DEVELOPPEMENT DE L'ELEVAGE ET DE LA PECHE (LIFIDEP) EN DEUX (02) LOTS (LOT(S) NO..)

Financement: BANQUE ISLAMIQUE DE DEVELOPPEMENT (IsDB)/GOVERNEMENT DU CAMEROON (GOC)
<<A N'OUVRIR QU'EN SEANCE DE DEPOUILLEMENT>>

12. L'ouverture des offres aura lieu **le 5 Février 2019 à 11.00h,** heure local (GMT+1), dans **la salle de conférences RDC, Immeuble LIFIDEP, Ayaba Street, Bamenda Cameroon,** en présence des soumissionnaires ou leurs représentants dument mandatés, et ayant une bonne connaissance du dossier.

Une seule personne peut représenter un soumissionnaire, même en cas d'un groupement.

Pour tout acte de corruption, bien vouloir appeler ou envoyer un SMS au MINMAP aux numéros suivants : (+237)673 20 57 25/(+237)699 37 07 48.

Bamenda le 4 Décembre 2018
Pius Mbipeh
Coordonnateur du Projet

Ampliation
- La BID (pour publication)
- Jeune Afrique Economie
- Cameroon Tribune (Pour publication)
- ARMP (pour publication et archivage)
- Président CSPM (pour information)
- Affichage (pour information)

SPECIFIC PROCUREMENT DOCUMENTS
BASED ON

Standard Bidding Document for Procurement of Works

Islamic Development Bank

Standard Bidding Document

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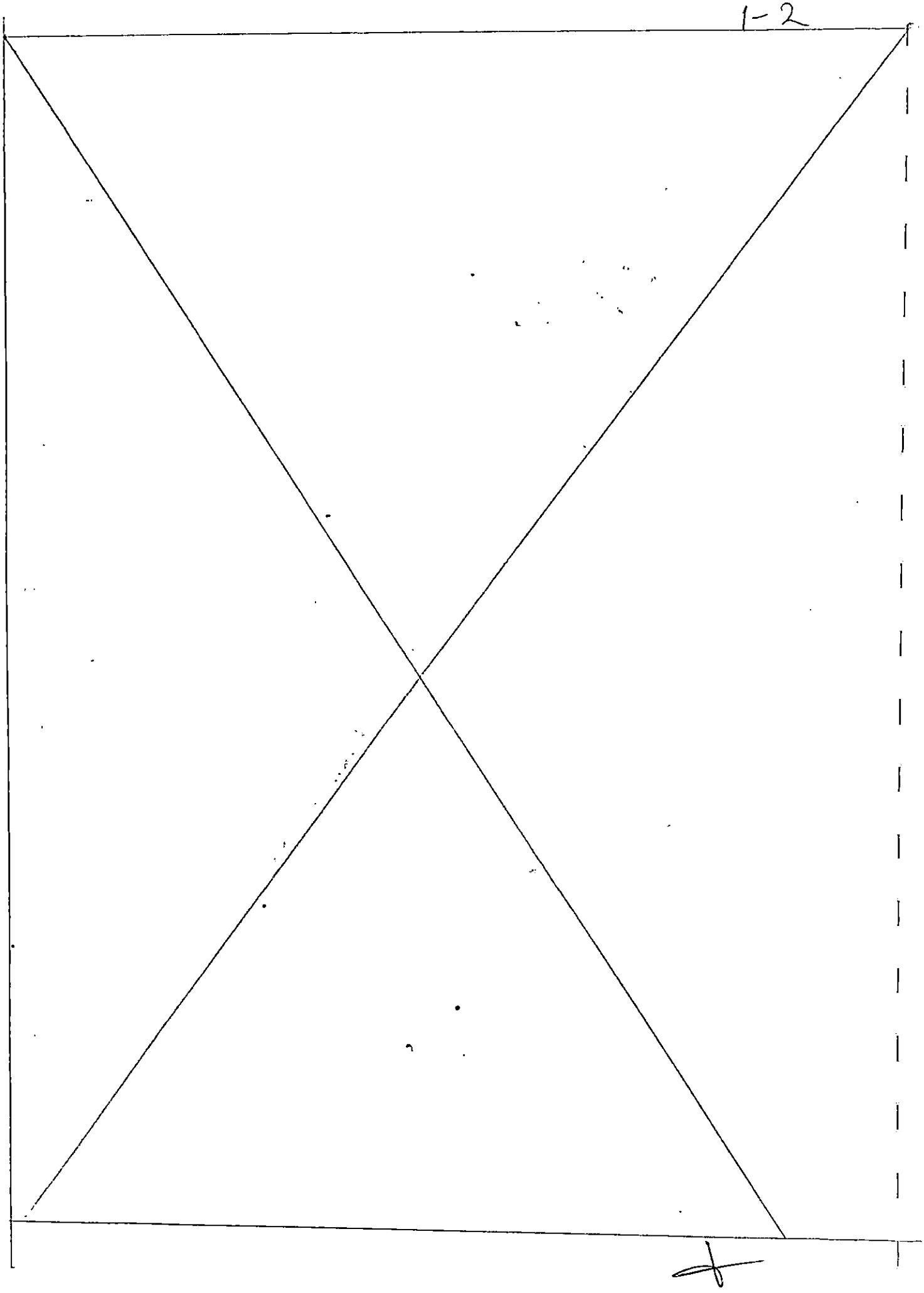
PART 1

Bidding Procedures



Section 1 - Instructions to Bidders

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Section I - Instructions to Bidders

A. General

1. Scope of Bid

1.1 The Employer, as **indicated in the BDS**, issues this Bidding Document for the procurement of the Works as specified in Section 6 (Employer's Requirements). The name, identification, and number of contracts of this bidding are **provided in the BDS**.

1.2 Throughout this Bidding Document:

(a) the term "in writing" means communicated in written form and delivered against receipt;

(b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and

(c) "day" means calendar day.

2. Source of Funds

2.1 The Beneficiary or Recipient (hereinafter called "Beneficiary") **indicated in the BDS** has applied for or received financing/loan/grant or TA (hereinafter called "funds") from the Islamic Development Bank (hereinafter called "the Bank") toward the cost of the project **named in the BDS**. The Beneficiary intends to apply a portion of the funds to eligible payments under the contract(s) for which this Bidding Document is issued.

2.2 Payments by the Bank will be made only at the request of the Beneficiary and upon approval by the Bank in accordance with the terms and conditions of the financing agreement between the Beneficiary and the Bank (hereinafter called the Financing Agreement), and will be subject in all respects to the terms and conditions of that Financing Agreement. No party other than the Beneficiary shall derive any rights from the Financing Agreement or have any claim to the funds.

3. Fraud and Corruption

3.1 It is the Bank's policy to require that Beneficiary's (including beneficiaries of Bank financings), as well as bidders, suppliers, and contractors and their agents (whether declared or not), personnel, subcontractors, sub-consultants, service providers and suppliers, under Bank-financed contracts, observe the highest standard of ethics during the procurement and execution

of such contracts.[1] In pursuance of this policy, the Bank:

(a) defines, for the purposes of this provision, the terms set forth below as follows:

(i) "corrupt practice" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party[2];

(ii) "fraudulent practice" is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation[3];

(iii) "collusive practice" is an arrangement between two or more parties[4] designed to achieve an improper purpose, including to influence improperly the actions of another party;

(iv) "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party[5];

(v) "obstructive practice" is

(aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to

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1 *In this context, any action taken by a bidder, supplier, contractor, or any of its personnel, agents, sub-consultants, sub-contractors, service providers, suppliers and/or their employees to influence the procurement process or contract execution for undue advantage is improper.*

2 *"Another party" refers to a public official acting in relation to the procurement process or contract execution]. In this context, "public official" includes Islamic Development Bank staff and employees of other organizations taking or reviewing procurement decisions.*

3 *"Party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.*

4 *"Parties" refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.*

5 *"Party" refers to a participant in the procurement process or contract execution.*

the investigation or from pursuing the investigation; or

(bb) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under sub-clause 3.2 below.

(b) will reject a proposal for award if it determines that the bidder recommended for award, or any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question;

(c) will declare mis-procurement and cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the Beneficiary or of a recipient of any part of the proceeds of the financing engaged in corrupt, fraudulent, collusive, coercive or obstructive practices during the procurement or the implementation of that contract, without the Beneficiary having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in timely manner at the time they knew of the practices; and

(d) will sanction a firm or an individual, at any time, in accordance with prevailing Bank's sanctions procedures[a], including by publicly declaring such firm or individual ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract; and (ii) to be a nominated[b] sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract

3.2 In further pursuance of this policy, Bidders shall permit the Bank to inspect any accounts and records and other documents

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[a] *A firm or an individual may be declared ineligible to be awarded a Bank-financed contract upon completion of the Bank's sanctions proceedings as per its sanctions procedures, including inter alia: (i) temporary suspension in connection with an ongoing sanctions proceeding; (ii) cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks;*

[b] *A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which either has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that are accounted for in the evaluation of the bidder's pre-qualification application or the bid; or (ii) appointed by the Beneficiary.*

relating to the Bid submission and contract performance, and to have them audited by auditors appointed by the Bank.

3.3 Furthermore, bidders shall be aware of the provision stated in GCC Sub-Clauses 22.2 and 56.2 (h).

4. Eligible Bidders

4.1 A Bidder may be a natural person, private entity, or government-owned entity—subject to ITB 4.6—or any combination of them in the form of a joint venture, under an existing agreement, or with the intent to constitute a legally-enforceable joint venture. Unless otherwise **stated in the BDS**, all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms.

4.2 A Bidder, and all parties constituting the Bidder, shall have the nationality of an eligible country, in accordance with *Section 5 (Eligible Countries)*. A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, or incorporated, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.

4.3 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

(a) they have a controlling partner in common; or

(b) they receive or have received any direct or indirect subsidy from any of them; or

(c) they have the same legal representative for purposes of this bid; or

(d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or

(e) a Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which the party is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid; or

(f) a Bidder or any of its affiliates participated as a consultant in

the preparation of the design or technical specifications of the contract that is the subject of the Bid; or

(g) a Bidder, or any of its affiliates has been hired (or is proposed to be hired) by the Employer or Beneficiary as Engineer for the contract.

4.4 A Bidder that has been sanctioned by the Bank in accordance with the above ITB 3.1 (d), or in accordance with the Bank's Guidelines on Preventing and Combating Corruption in Projects Financed by Islamic Development Bank, shall be ineligible to be awarded a Bank-financed contract, or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall determine

4.5 Government-owned enterprises in the Employer's country shall be eligible only if they can establish that they are legally and financially autonomous and operate under commercial law, and that they are not a dependent agency of the Employer.

4.6 Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.

4.7 In case a prequalification process has been conducted prior to the bidding process, this bidding is open only to prequalified Bidders.

4.8 Firms shall be excluded if:

(a) as a matter of law or official regulation, the Beneficiary's country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of goods or related services required; or

(b) by the Boycott Regulations of the Organization of the Islamic Cooperation, the League of Arab States and the African Union, the Beneficiary's country prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country.

5. Eligible Materials, Equipment and Services

5.1 The materials, equipment and services to be supplied under the Contract shall have their origin in eligible source countries as defined in ITB 4.2 above and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, Bidders may be required to provide evidence of the origin of materials, equipment and services.

5.2 For purposes of ITB 5.1 above, "origin" means the place where the materials and equipment are mined, grown, produced or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.

B. Contents of Bidding Document

6. Sections of Bidding Document

6.1 The Bidding Document consist of Parts 1, 2, and 3, which include all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 8.

PART 1 Bidding Procedures
- Section I - Instructions to Bidders (ITB)
- Section II - Bid Data Sheet (BDS)
- Section III - Evaluation and Qualification Criteria
- Section IV - Bidding Forms
- Section V - Eligible Countries

PART 2 Requirements
- Section VI - Works Requirements

PART 3 Conditions of Contract and Contract Forms
- Section VII - General Conditions (GC)
- Section VIII - Particular Conditions (PC)
- Section IX - Contract Forms

6.2 The Invitation for Bids issued by the Employer is not part of the Bidding Document.

6.3 The Employer is not responsible for the completeness of the Bidding Document and their Addenda, if they were not obtained directly from the source stated by the Employer in the Invitation for Bids.

6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Document. Failure to furnish all information or documentation required by the Bidding Document may result in the rejection of the bid.

7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting

7.1 A prospective Bidder requiring any clarification of the Bidding Document shall contact the Employer in writing at the Employer's address **indicated in the BDS** or raise his inquiries during the pre-bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of bids, within a period **given in the BDS**. The Employer shall forward copies of its response to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. Should the Employer deem it necessary to amend the Bidding Document as a result of a request for clarification, it shall do so following the procedure under ITB 8 and ITB 22.2.

7.2 The Bidder is encouraged to visit and examine the Site of Works and its surroundings and obtain for itself, on its own risk and responsibility, all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.

7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

7.4 The Bidder's designated representative is invited to attend a pre-bid meeting, if **provided for in the BDS**. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

7.5 The Bidder is requested, as far as possible, to submit any questions in writing, to reach the Employer not later than one week before the meeting.

7.6 Minutes of the pre-bid meeting, including the text of the questions raised, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3. Any modification to the Bidding Document that may become necessary as a result of the pre-bid meeting shall be made by the

Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-bid meeting.

7.7 Nonattendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.

8. Amendment of Bidding Document

8.1 At any time prior to the deadline for submission of bids, the Employer may amend the Bidding Document by issuing addenda.

8.2 Any addendum issued shall be part of the Bidding Document and shall be communicated in writing to all who have obtained the Bidding Document from the Employer in accordance with ITB 6.3.

8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may, at its discretion, extend the deadline for the submission of bids, pursuant to ITB 22.2

C. Preparation of Bids

9. Cost of Bidding

9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

10. Language of Bid

10.1 The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer, shall be written in the language **specified in the BDS**. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language **specified in the BDS**, in which case, for purposes of interpretation of the Bid, such translation shall govern.

11. Documents Comprising the Bid

11.1 The Bid shall comprise the following:

(a) Letter of Bid;

(b) completed Schedules, in accordance with ITB 12 and 14, or **as stipulated in the BDS;**

(c) Bid Security ~~or Bid Securing Declaration~~, in accordance with ITB ~~19~~;

(d) alternative bids, at Bidder's option and if permissible, in accordance with ITB 13;

(e) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2;

(f) documentary evidence in accordance with ITB 17 establishing the Bidder's qualifications to perform the contract;

(g) Technical Proposal in accordance with ITB 16;

(h) In the case of a bid submitted by a joint venture (JV), the JV agreement, or letter of intent to enter into a JV including a draft agreement, indicating at least the parts of the Works to be executed by the respective partners; and

(i) Any other document **required in the BDS**.

12. Letter of Bid and Schedules

12.1 The Letter of Bid, Schedules, and all documents listed under Clause 11, shall be prepared using the relevant forms in Section IV (Bidding Forms), if so provided. The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.

13. Alternative Bids

13.1 Unless otherwise **indicated in the BDS**, alternative bids shall not be considered.

13.2 When alternative times for completion are explicitly invited, a statement to that effect will be **included in the BDS**, as will the method of evaluating different times for completion.

13.3 When **specified in the BDS** pursuant to ITB 13.1, and subject to ITB 13.4 below, Bidders wishing to offer technical alternatives to the requirements of the Bidding Document must first price the Employer's design as described in the Bidding Document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the lowest evaluated Bidder conforming to the basic technical requirements shall be considered by the Employer.

13.4 When **specified in the BDS**, Bidders are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be **identified in the BDS** and described in Section VI (Employer's Requirements). The method for their evaluation will be stipulated in Section III (Evaluation and Qualification Criteria).

14. Bid Prices and Discounts

14.1 The prices and discounts quoted by the Bidder in the Letter of Bid and in the Schedules shall conform to the requirements specified below.

14.2 The Bidder shall submit a bid for the whole of the works described in ITB 1.1 by filling in prices for all items of the Works, as identified in Section IV, Bidding Forms. In case of admeasurement contracts, the Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.

14.3 The price to be quoted in the Letter of Bid shall be the total price of the Bid, excluding any discounts offered.

14.4 Unconditional discounts, if any, and the methodology for their application shall be quoted in the Letter of Bid, in accordance with ITB 12.1.

14.5 If so indicated in ITB 1.1, bids are invited for individual contracts or for any combination of contracts (packages). Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Price reductions or discounts shall be submitted in accordance with ITB 14.3, provided the bids for all contracts are submitted and opened at the same time.

14.6 Unless otherwise **provided in the BDS** and the Conditions of Contract, the prices quoted by the Bidder shall be fixed. If the prices quoted by the Bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, the Bidder shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data in Section IV (Bidding Forms) and the Employer may require the Bidder to justify its proposed indices and weightings.

14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the rates and prices and the total bid price submitted by the Bidder.

15. Currencies of Bid and Payment

15.1 The currency(ies) of the bid shall be as **specified in the BDS.**

15.2 Bidders may be required by the Employer to justify, to the Employer's satisfaction, their local and foreign currency requirements, and to substantiate that the amounts included in the prices shown in the appropriate form(s) of Section IV, in which case a detailed breakdown of the foreign currency requirements shall be provided by Bidders.

16. Documents Comprising the Technical Proposal

16.1 The Bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV (Bidding Forms), in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work requirements and the completion time.

17. Documents Establishing the Qualifications of the Bidder

17.1 To establish its qualifications to perform the Contract in accordance with Section III (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding information sheets included in Section IV (Bidding Forms).

17.2 Domestic Bidders, individually or in joint ventures, applying for eligibility for a 7½-percent margin of domestic preference shall supply all information required to satisfy the criteria for eligibility as described in ITB 33.

18. Period of Validity of Bids

18.1 Bids shall remain valid for the period **specified in the BDS** after the bid submission deadline date prescribed by the Employer. A bid valid for a shorter period shall be rejected by the Employer as nonresponsive.

18.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Employer may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. If a bid security is requested in accordance with ITB 19, it shall also be extended for a corresponding period. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request shall not be required or permitted to modify its bid.

18.3 In the case of fixed price contracts, if the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial bid validity, the Contract price shall be adjusted by a factor specified in the request for extension. Bid evaluation shall be based on the Bid Price without taking into consideration the above correction.

19. Bid Security

19.1 Unless otherwise **specified in the BDS**, the Bidder shall furnish as part of its bid, in original form, either a Bid Securing

Declaration or a bid security **as specified in the BDS.** In the case of a bid security, the amount shall be **as specified in the BDS.**

~~19.2 A Bid Securing Declaration shall use the form included in Section IV Bidding Forms.~~

19.3 If a bid security is specified pursuant to ITB 19.1, the bid security shall be, at the Bidder's option, in any of the following forms:

(a) an unconditional guarantee, issued by a bank *or surety*;

(b) an irrevocable letter of credit;

(c) a cashier's or certified check; or

(d) another security **indicated in the BDS.**

from a reputable source from an eligible country. If the unconditional guarantee is issued by an insurance company or bonding company located outside the Employer's Country, it shall have a correspondent financial institution located in the Employer's Country. In the case of a bank guarantee, the bid security shall be submitted either using the Bid Security Form included in Section IV (Bidding Forms) or in another substantially similar format approved by the Employer prior to bid submission. In either case, the form must include the complete name of the Bidder. The bid security shall be valid for twenty-eight days (28) beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 18.2.

19.4 Any bid not accompanied by an enforceable and substantially compliant bid security or Bid Securing Declaration, if required in accordance with ITB 19.1, shall be rejected by the Employer as nonresponsive.

19.5 If a bid security is specified pursuant to ITB 19.1, the bid security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the performance security pursuant to ITB 41.

19.6 If a bid security is specified pursuant to ITB 19.1, the bid security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required performance security.

19.7 The bid security will be forfeited or the Bid Securing Declaration executed:

(a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bid, except as provided in ITB 18.2 or

(b) if the successful Bidder fails to:

(i) sign the Contract in accordance with ITB 40; or

(ii) furnish a performance security in accordance with ITB 41.

19.8 The Bid Security ~~or the Bid Securing Declaration~~ of a JV shall be in the name of the JV that submits the bid. If the JV has not been constituted into a legally-enforceable JV, at the time of bidding, the Bid Security or the Bid Securing Declaration shall be in the names of all future partners as named in the letter of intent mentioned in ITB 4.1.

19.9 If a bid security is **not required in the BDS**, and

(a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bid Form, except as provided in ITB 18.2, or

(b) if the successful Bidder fails to: sign the Contract in accordance with ITB 40; or furnish a performance security in accordance with ITB 41;

the Beneficiary may, **if provided for in the BDS**, declare the Bidder disqualified to be awarded a contract by the Employer for a period of time **as stated in the BDS**.

20. Format and Signing of Bid

20.1 The Bidder shall prepare one original of the documents comprising the bid as described in ITB 11 and clearly mark it "ORIGINAL". Alternative bids, if permitted in accordance with ITB 13, shall be clearly marked "ALTERNATIVE". In addition, the Bidder shall submit copies of the bid in the number **specified in the BDS**, and clearly mark each of them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.

20.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as **specified in the BDS** and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature.

20.3 Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.

D. Submission and Opening of Bids

21. Sealing and Marking of Bids

21.1 Bidders may always submit their bids by mail or by hand. When so **specified in the BDS**, bidders shall have the option of submitting their bids electronically. Procedures for submission, sealing and marking are as follows:

(a) Bidders submitting bids by mail or by hand shall enclose the original and each copy of the Bid, including alternative bids, if permitted in accordance with ITB 13, in separate sealed envelopes, duly marking the envelopes as "ORIGINAL", "ALTERNATIVE" and "COPY." These envelopes containing the original and the copies shall then be enclosed in one single envelope. The rest of the procedure shall be in accordance with ITB sub-Clauses 22.2 and 22.3.

(b) Bidders submitting bids electronically shall follow the electronic bid submission procedures **specified in the BDS**.

21.2 The inner and outer envelopes shall:

(a) bear the name and address of the Bidder;

(b) be addressed to the Employer as **provided in the BDS** pursuant to ITB 22.1;

(c) bear the specific identification of this bidding process indicated in accordance with ITB 1.1; and

(d) bear a warning not to open before the time and date for bid opening.

21.3 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the bid.

22. Deadline for Submission of Bids

22.1 Bids must be received by the Employer at the address and no later than the date and time **indicated in the BDS**.

22.2 The Employer may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline

shall thereafter be subject to the deadline as extended.

23. Late Bids

23.1 The Employer shall not consider any bid that arrives after the deadline for submission of bids, in accordance with ITB 22. Any bid received by the Employer after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.

24. Withdrawal, Substitution, and Modification of Bids

24.1 A Bidder may withdraw, substitute, or modify its bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 20.2, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the bid must accompany the respective written notice. All notices must be:

(a) prepared and submitted in accordance with ITB 20 and ITB 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION;" and

(b) received by the Employer prior to the deadline prescribed for submission of bids, in accordance with ITB 22.

24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders.

24.3 No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Letter of Bid or any extension thereof.

25. Bid Opening

25.1 The Employer shall open the bids in public at the address, date and time **specified in the BDS** in the presence of Bidders' designated representatives and anyone who choose to attend. Any specific electronic bid opening procedures required if electronic bidding is permitted in accordance with ITB 21.1, shall be as **specified in the BDS.**

25.2 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding bid being substituted, and the substituted bid shall not be opened, but returned to the Bidder. No bid substitution shall be permitted unless the corresponding substitution notice contains a valid

authorization to request the substitution and is read out at bid opening. Envelopes marked "MODIFICATION" shall be opened and read out with the corresponding bid. No bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at bid opening. Only envelopes that are opened and read out at bid opening shall be considered further.

25.3 All other envelopes shall be opened one at a time, reading out: the name of the Bidder and the Bid Price(s), including any discounts and alternative bids and indicating whether there is a modification; the presence of a bid security or Bid securing Declaration, if required; and any other details as the Employer may consider appropriate. Only discounts and alternative offers read out at bid opening shall be considered for evaluation. No bid shall be rejected at bid opening except for late bids, in accordance with ITB 23.1.

25.4 The Employer shall prepare a record of the bid opening that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, substitution, or modification; the Bid Price, per contract if applicable, including any discounts and alternative offers; and the presence or absence of a bid security, if one was required. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

E. Evaluation and Comparison of Bids

26. Confidentiality

26.1 Information relating to the examination, evaluation, comparison, and post-qualification of bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all Bidders.

26.2 Any attempt by a Bidder to influence the Employer in the evaluation of the bids or Contract award decisions may result in the rejection of its bid.

26.3 Notwithstanding ITB 25.2, from the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Employer on any matter related to the bidding process, it may do so in writing.

27. Clarification of

27.1 To assist in the examination, evaluation, and comparison of the bids, and qualification of the Bidders, the Employer may, at its

Bids

discretion, ask any Bidder for a clarification of its bid. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change in the prices or substance of the bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the bids, in accordance with ITB 31.

27.2 If a Bidder does not provide clarifications of its bid by the date and time set in the Employer's request for clarification, its bid may be rejected.

28. Deviations, Reservations, and Omissions

28.1 During the evaluation of bids, the following definitions apply:

(a) "Deviation" is a departure from the requirements specified in the Bidding Document;

(b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document; and

(c) "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Document.

29. Determination of Responsiveness

29.1 The Employer's determination of a bid's responsiveness is to be based on the contents of the bid itself, as defined in ITB11.

29.2 A substantially responsive bid is one that meets the requirements of the Bidding Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,

(a) if accepted, would:

(i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or

(ii) limit in any substantial way, inconsistent with the Bidding Document, the Employer's rights or the Bidder's obligations under the proposed Contract; or

(b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive bids.

29.3 The Employer shall examine the technical aspects of the bid submitted in accordance with ITB 16, Technical Proposal, in particular, to confirm that all requirements of Section 6 (Employer's Requirements) have been met without any material

deviation, reservation or omission.

29.4 If a bid is not substantially responsive to the requirements of the Bidding Document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

30. Nonconformities, Errors, and Omissions

30.1 Provided that a bid is substantially responsive, the Employer may waive any nonconformities in the bid.

30.2 Provided that a bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the bid. Failure of the Bidder to comply with the request may result in the rejection of its bid.

30.3 Provided that a bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price may be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component. The adjustment shall be made using the methods indicated in Section III (Evaluation and Qualification Criteria).

31. Correction of Arithmetical Errors

31.1 Provided that the bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis:

(a) only for unit price contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;

(b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and

(c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

31.2 If the Bidder that submitted the lowest evaluated bid does not accept the correction of errors, its bid shall be declared non-responsive.

32. Conversion to Single Currency

32.1 For evaluation and comparison purposes, the currency(ies) of the bid shall be converted into a single currency as **specified in the BDS.**

33. Margin of Preference

33.1 A margin of preference shall not apply, **unless otherwise specified in the BDS.** In the case of application of margin of preferences, the *Para 2.39* of Guidelines for Procurement of Goods and Works under Islamic Development Bank Financing, May 2009 shall be applied by Employer.

33.2 Domestic bidders shall provide all evidence necessary to prove that they meet the following criteria to be eligible for a margin of preference **as specified in the BDS** in the comparison of their bids with those of bidders who do not qualify for the preference. They should:

(a) be registered within the country of the Employer's country ;

(b) have majority ownership by nationals of the country of the Employer's country ;

(c) not subcontract more than 10 percent of the Contract Price, excluding provisional sums, to foreign contractors.

33.3 The following procedure shall be used to apply the margin of preference:

(a) Responsive bids shall be classified into the following groups:

(i) Group A: bids offered by domestic bidders and joint ventures meeting the criteria of ITB Sub-Clause 33.2; and

(ii) Group B: all other bids.

(b) For the purpose of further evaluation and comparison of bids only, an amount equal to *%10* percent of the evaluated Bid prices determined in accordance with ITB Sub-Clause 33.2 shall be added to all bids classified in Group B.

34. Evaluation of Bids

34.1 The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.

34.2 To evaluate a bid, the Employer shall consider the following:

(a) the bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities for admeasurement contracts or Schedule of Prices for lump sum contracts, but including Daywork items, where priced competitively;

(b) price adjustment for correction of arithmetic errors in accordance with ITB 31.1;

(c) price adjustment due to discounts offered in accordance with ITB 14.3;

(d) converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 32;

(e) adjustment for nonconformities in accordance with ITB 30.3;

(f) application of all the evaluation factors indicated in Section III (Evaluation and Qualification Criteria);

34.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.

34.4 If this Bidding Document allows Bidders to quote separate prices for different contracts, and to award multiple contracts to a single Bidder, the methodology to determine the lowest evaluated price of the contract combinations, including any discounts offered in the Letter of Bid, is specified in Section III (Evaluation and Qualification Criteria).

34.5 If the bid for an admeasurement contract, which results in the lowest Evaluated Bid Price, is seriously unbalanced, front loaded or substantially below updated estimates in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, taking into consideration the schedule of estimated Contract payments, the Employer may require that the amount of the performance security be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.

35. Comparison of Bids

35.1 The Employer shall compare all substantially responsive bids in accordance with ITB 34.2 to determine the lowest evaluated bid.

36. Qualification of the Bidder

36.1 The Employer shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive bid meets the qualifying criteria specified in Section III (Evaluation and Qualification Criteria).

36.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17.1.

36.3 An affirmative determination of qualification shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the bid, in which event the Employer shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder's qualifications to perform satisfactorily.

37. Employer's Right to Accept Any Bid, and to Reject Any or All Bids

37.1 The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.

F. Award of Contract

38. Award Criteria

38.1 Subject to ITB 37.1, the Employer shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Document, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

39. Notification of Award

39.1 Prior to the expiration of the period of bid validity, the Employer shall notify the successful Bidder, in writing, via the Letter of Acceptance included in the Contract Forms, that its bid has been accepted. At the same time, the Employer shall also notify all other Bidders of the results of the bidding, and shall publish in an appropriate newspaper or Gazette and IsDB website online, the results identifying the bid and lot numbers and the following information: (i) name of each Bidder who submitted a Bid; (ii) bid prices as read out at Bid Opening; (iii) name and evaluated prices of each Bid that was evaluated; (iv) name of bidders whose bids were rejected and the reasons for their rejection; and (v) name of the

winning Bidder, and the Price it offered, as well as the duration and summary scope of the contract awarded.

39.2 Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.

39.3 The Employer shall promptly respond in writing to any unsuccessful Bidder who, after notification of award in accordance with ITB 39.1, requests in writing the grounds on which its bid was not selected.

40. Signing of Contract

40.1 Promptly upon notification, the Employer shall send the successful Bidder the Contract Agreement.

40.2 Within twenty-eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Employer.

41. Performance Security

41.1 Within twenty-eight (28) days of the receipt of notification of award from the Employer, the successful Bidder shall furnish the performance security in accordance with the conditions of contract, subject to ITB 34.5, using for that purpose the Performance Security Form included in Section IX (Contract Forms), or another form acceptable to the Employer. If the performance security furnished by the successful Bidder is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Bidder to be acceptable to the Employer. A foreign institution providing a bond shall have a correspondent financial institution located in the Employer's Country.

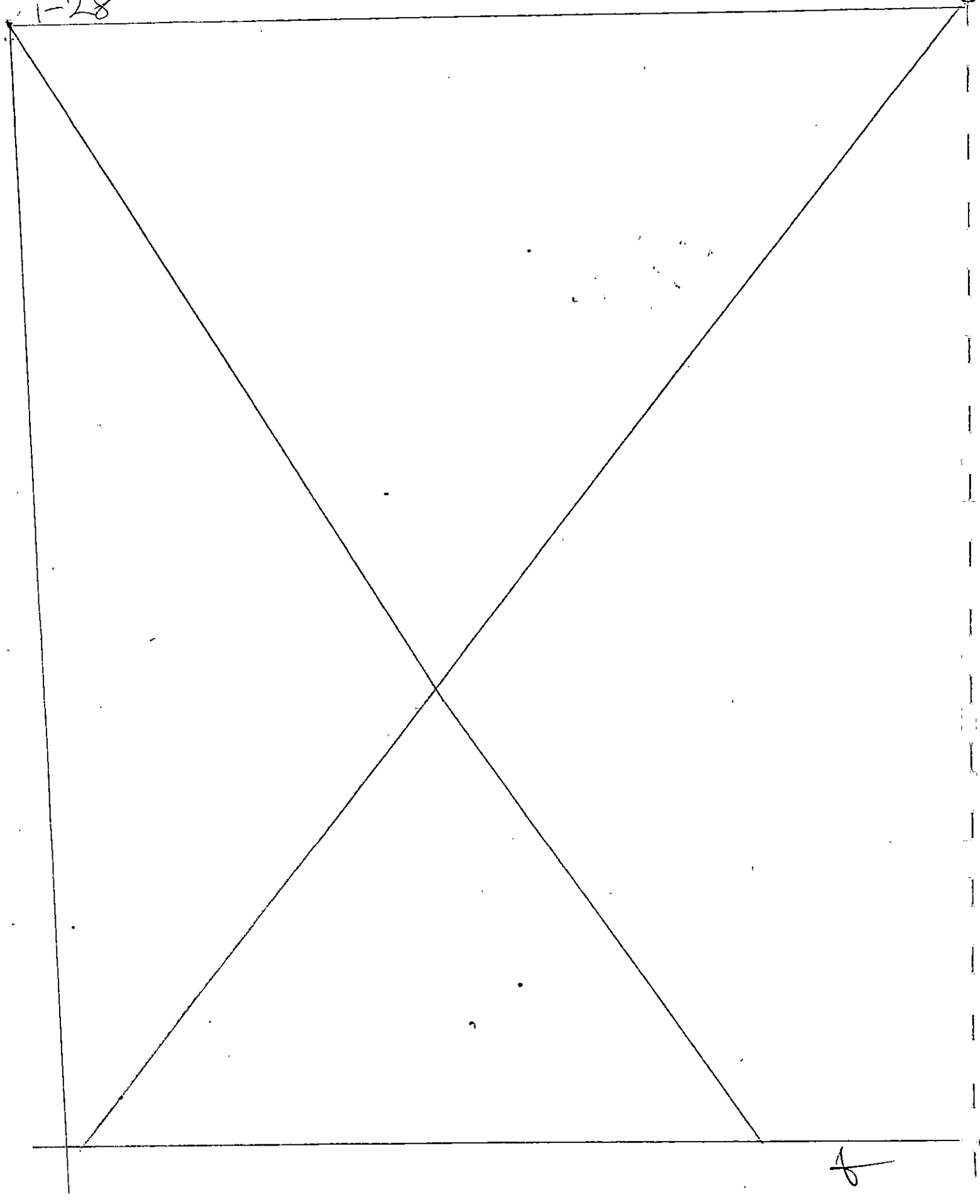
41.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or to sign the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security. In that event the Employer may award the Contract to the next lowest evaluated Bidder whose offer is substantially responsive and is determined by the Employer to be qualified to perform the Contract satisfactorily.

41.3 The above provision shall also apply to the furnishing of a domestic preference security if so required.

42. Adjudicator

42.1 The Employer proposes the person **named in the BDS** to be appointed as Adjudicator under the Contract, at the hourly fee **specified in the BDS**, plus reimbursable expenses. If the Bidder disagrees with this proposal, the Bidder should so state in his Bid. If, in the Letter of Acceptance, the Employer does not agree

on the appointment of the Adjudicator, the Employer will request the Appointing Authority designated in the Particular Conditions of Contract (PCC) pursuant to Clause 23.1 of the General Conditions of Contract (GCC), to appoint the Adjudicator.



Section II - Bid Data Sheet (BDS)

A. Introduction

ITB 1.1	The Employer is: **The Livestock and Fisheries Development Project (LIFIDEP)**
ITB 1.1	The Name of the bidding process is: **International Competitive Bidding, IsDB Member countries** The identification number of the bidding process is: **N°29/ICB/MC/MINMAP/CCPM-BEC/2018** The number and identification of lots comprising this bidding process is: **Lot 1:** **a) The construction of 7 demonstration and multiplication centers (class room and office units)** in Fundong, Tadu, Misaje/Dumbu, Santa (Coffee Estate), Wum(WADA) Gwofon and Babungo **b) Construction/renovation of 7 divisional veterinary clinics** in Fundong, Kumbo, Nkambe, Bamenda II, Wum, Mbengwi and Bamunka **c) Construction of 20 sub divisional veterinary centers** in Fundong, Belo, Jakiri, Elak, Nkor, Nkambe, Ndu, Misaje, Ako, Mundum, Pinyin, Bambui, Wum, Benakuma, Zhoa, Batibo, Andek, Bambalang, Bafanji and Babessi. **d) Construction of 5 veterinary control posts in Abonshie**, Sabon Gari, Matazem, Bawuru and Esu **e) Construction of 50 meat sale slabs in** Fundong, Belo, Mbessa, Njinikom, Bua-Bua, Kumbo, Jakiri, Mbiame, Tolon, Ibal, Kevu, Tatum, Nkor, Lasin, Nkambe old market, Binka market, Ndu, Ntumbaw, Misaje, Dumbu, Ako, Sabon Gari, Mendankwe, Mile 8, Ngomgham, Nkwen, Bafut market, Bali(Njenka), Santa, Pinyin, Akum, Bambui Market, Sabga, Big Babanki, Wum, Befang, Benakuma, Weh, Fura-awa, Acha-Tugi, Guzang, Widikum, Andek, Oshie, Bamuka, Bamessing, Balikumbat, Babungo, Babessi and Baba. **f) Construction of a fish farming center in** Baforkum (Bambui) **g) Construction of 15 small slaughter houses in:** Fundong, Fonfuka, Jakiri, Elak, Nkambe, Misaje, Bali, Njong, Bambili, Benakuma, Bafmeng, Acha-Tugi, Nkun, Bamunka and Babungo. **Lot 2:** **a) The construction and equipment of 3 poultry feed mills in:** Kumbo, Nsongwa and Nkwen. **b)Construction of a fish feed mill in:** Nkwen **c) Construction of modern slaughter house in :** Mendangkwe

ITB 2.1	The Beneficiary is: **The Republic of Cameroon(Ministry of Livestock Fisheries and Animal Industries(MINEPIA))**
ITB 2.1	The name of the Project is: **Livestock and Fisheries Development Project(LIFIDEP) for the North West Region of Cameroon**
ITB 4.1(a)	The individuals or firms in a JV **shall be jointly and severally liable.**

B. Bidding Documents

ITB 7.1	For **clarifications purposes** only, the Employer's address is: **The Project Coodinator LIFIDEP** Street Address: **LIFIDEP Building Ayaba street, PO Box 142, Mankon Bamenda** Floor/Room number: **Secretariat, Project Coordinator of LIFIDEP** **(+237) 691 046 397** Electronic mail address : **lifidepnwr@gmail.com.** Requests for clarification should be received by the Employer no later than: **15 days before date of submission of bids.**
ITB 7.4	A Pre-Bid meeting ***shall not*** take place. If a Pre-Bid meeting will take place, it will be at the following date, time and place: Date: *NA* Time: *NA* Place: *NA* A site visit conducted by the Employer ***shall not be*** organized. **But the bidders are advised to visit the different project sites at their expense and acquaint themselves with the conditions of the sites and obtain all information necessary for preparation of the bid prior to submission of bids.** If a Site Visit will take place, it will be at the following date, time and place: Date: *NA* Time: *NA* Place: *NA*

C. Preparation of Bids

ITB 10.1	The language of the bid is: **English or French**
ITB 11.1 (b)	The following schedules shall be submitted with the bid: The Bidder must provide the following Documents: (a) Letter of Bid completely filled and signed using the model form provided on Section IV: Model forms (b) A Complete detailed priced Bill of Quantities, unit price Schedule and Unit price Break down as provided in Section IV, Bidding Forms; (c) Bid Security issued by a bank or any other first-order credit institution approved by the Ministry in charge of finance for bidders whose business are installed in Cameroon, in accordance with **ITB** 19; (d) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with **ITB** 20.2; (e) documentary evidence establishing the Bidder's qualifications in accordance with the requirements of Section III, Evaluation and Qualification Criteria, using the relevant forms furnished in Section IV, Bidding Forms; (f) documentary evidence establishing the conformity of the Technical Proposal offered by the Bidder with the Bidding Document, using the relevant forms furnished in Section IV, Bidding Forms;i.e Technical note on the methodology and the execution of works • The method proposed by the Contractor for the proper realisation of works as well as different remarks and suggestions that the Bidder may find necessary to make. Works the bidder intends to sub contract and the subcontractor envisaged and the use of local labour. • Provision of documentary evidence of the fallouts of the project on the local community • Supply of materials or site equipment, • Sanitary and Security plan of the site plan; • Administrative and technical organization of the enterprise; • Mitigation risks clauses of environment • The detailed programme of performance of works, Mobilization of materials and proposed personnel including their curriculum vitae

	(g) The Bidder must provide the following documentary evidence to establish the conformity of the goods and Related Services with the Bidding Documents for lot 2: **-Technical prospectus for the following:** - **Equipment for 3 line, modern slaughter house** - **Equipment for the poultry feed mill** - **Equipment for fish feed mill**
ITB 11.1 (i)	The Bidder shall submit with its bid the following additional documents: An administrative file consisting of : **For national companies:** **1. Tax Clearance Certificate** **2. Certificate of Non-Exclusion from Public contracts by ARMP** **3. Attestation of non-bankruptcy** **4. Certificate of incorporation (with form ELI-1.1)** **5. CNPS Clearance Certificate** **6. Attestation of bank account** **7. Receipt of payment for Bidding Documents** **8. Bid bond as specified in ITB 19.1 of :** **Lot 1: 52 500 000 (Fifty two million five hundred thousand) FCFA** **Lot 2: 34 500 000 (Thirty four Million five hundred thousand) F CFA** **For foreign companies:** **3. Attestation of non-bankruptcy or equivalent** **4. Certificate of incorporation (with form ELI-1.1)** **6. Attestation of bank account** **7. Receipt of payment for Bidding Documents** **8. Bid bond as specified in ITB 19.1 of :** **Lot 1: 52 500 000 (Fifty two million five hundred thousand) FCFA** **Lot 2: 34 500 000 (Thirty four Million five hundred thousand) F CFA** **In the case of a Joint Venture, each member is required to produce a complete set of documents except, receipt of payment for bidding documents and attestation of bank account. The bid bond should be in the name of the Joint Venture**
ITB 13.1	Alternative bids *shall not be* permitted.
ITB 13.2	Alternative times for completion *shall not be* permitted. If alternative times for completion are permitted, the evaluation method will be as specified in Section III (Evaluation and Qualification Criteria).

ITB 13.4	Alternative technical solutions shall be permitted for the following parts of the Works: [*Not applicable*] If alternative technical solutions are permitted, the evaluation method will be as specified in Section III (Evaluation and Qualification Criteria).
ITB 14.6	The prices quoted by the Bidder *shall not be* subject to adjustment during the performance of the Contract.
ITB 15.1	The prices shall be quoted by the bidder in: **FRANCS CFA or US dollar, Euro or Islamic Dinar.**
ITB 18.1	The bid validity period shall be:**120 days from date of submission of bids**
ITB 19.1	- The Bidder shall furnish a bid security in the amount in **FCFA** of Lot 1: 52 500 000 ; Lot 2: 34 500 000
ITB 19.3 (d)	
ITB 20.1	In addition to the original of the bid, the number of copies is: Six(6)
ITB 20.2	The written confirmation of authorization to sign on behalf of the Bidder shall indicate: (a) **The name and description of the documentation required to demonstrate the authority of the signatory to sign the Bid such as a Power of Attorney; and** *(b)* **In the case of Bids submitted by an existing or intended JV an undertaking signed by all parties (i) stating that all parties shall be jointly and severally liable, if so required in accordance with ITB 4.1(a), and (ii) nominating a Representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.**

D. Submission and Opening of Bids

ITB 21.1	Bidders **shall not** have the option of submitting their bids electronically.
ITB 21.1 (b)	The electronic bidding submission procedures shall be: NOT APPLICABLE
ITB 22.1	For **bid submission purposes** only, the Purchaser's address is:

	Attention: The Project Coordinator Street Address: **LIFIDEP Building Ayaba street, PO Box 142, Mankon Bamenda** Floor/Room number: **Secretariat, Project Coordinator of LIFIDEP** City: **Bamenda** ZIP Code: **Not Applicable** Country: **Republic of Cameroon** **The deadline for bid submission is:** Date: **5 February 2019** **Time: 10 .00H** Local Time: **(GMT+1)**
ITB 25.1	**The bid opening shall take place at:** Street Address: **LIFIDEP Building Ayaba street, PO Box 142, Mankon Bamenda** Floor/Room number: **Board Room, Ground Floor** City: **Bamenda** Country: **Republic of Cameroon** Date: **5 February 2019** **Time: 11.00 H** Local Time: **(GMT+1)**
ITB 25.1	The electronic bid opening procedures shall be: **NOT APPLICABLE**

E. Evaluation and Comparison of Bids

ITB 32.1	The currency that shall be used for bid evaluation and comparison purposes to convert all bid prices expressed in various currencies into a single currency is: **Francs CFA** The source of exchange rate shall be: **Bank of Central African States(BEAC)** The date for the exchange rate shall be: **15 days before date of submission of bids.**
ITB 33.1	*A margin of preference* **shall not** *apply*
ITB 42.1	The Adjudicator proposed by the Employer is: **North West Regional Representative of the Cameroon Order of Civil Engineers.** The hourly fee for this proposed Adjudicator shall be: **10 000 Francs CFA.** The biographical data of the proposed Adjudicator is as follows: **Civil Engineering Consultant:**

Section III – Evaluation and Qualification Criteria

This section contains all the criteria that the Employer shall use to evaluate bids and qualify Bidders if the bidding was not preceded by a prequalification exercise and post-qualification is applied. In accordance with ITB 34 and ITB 36, no other methods, criteria and factors shall be used. The Bidder shall provide all the information requested in the forms included in Section 4 (Bidding Forms).

Table of Criteria

1. Evaluation

In addition to the criteria listed in ITB 34.1 (a) – I the following criteria shall apply:

1.5 Adequacy of Technical Proposal

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section VI (Employer's Requirements).

1.2 Multiple Contracts

Pursuant to Sub-Clause 34.4 of the Instructions to Bidders, since Works are grouped in multiple contracts, evaluation will be as follows:

A bidder can be awarded both lots only on the condition that the bidder has presented a separate list of personnel and materials for each lot and fulfils the technical, financial and experience criteria for the lots grouped together. This shall be verified before award.

The award shall be based on the combination most advantageous to the Employer.

1.3 Completion Time

An alternative Completion Time, if permitted under ITB 13.2, will be evaluated as follows:

1.4 Technical Alternatives

Technical alternatives, if permitted under ITB 13.4, will be evaluated as follows:

1.5 Margin of Preference is not Applicable

If a margin of preference shall apply under ITB 33.1, the procedure will be as follows as:

2. Qualification

Factor	2.1 Eligibility					
Sub-Factor	Requirement	Criteria				Documentation Required
		Bidder				
		Single Entity	Joint Venture, Consortium or Association			
			All partners combined	Each partner	At least one partner	
2.1.1 Nationality	Nationality in accordance with ITB 4.2.	Must meet requirement	Existing or intended JV must meet requirement	Must meet requirement	N / A	Form ELI –1.1 and 1.2, with attachments
2.1.2 Conflict of Interest	No- conflicts of interests as described in ITB 4.3.	Must meet requirement	Existing or intended JV must meet requirement	Must meet requirement	N / A	Letter of Bid
2.1.3 Bank Ineligibility	Not having been declared ineligible by the Bank as described in ITB 4.4.	Must meet requirement	Existing JV must meet requirement	Must meet requirement	N / A	Letter of Bid
2.1.4 Government Owned Entity	Compliance with conditions of ITB 4.5	Must meet requirement	Must meet requirement	Must meet requirement	N / A	Form ELI –1.1 and 1.2, with attachments

Factor	2.1 Eligibility					
Sub-Factor	Requirement	Criteria				Documentation Required
		Bidder				
		Single Entity	Joint Venture, Consortium or Association			
			All partners combined	Each partner	At least one partner	
2.1.5 Ineligibility based on a United Nations resolution or Beneficiary's country law or Boycott Regulations of the Organization of the Islamic Cooperation, the League of Arab States and the African Union (Para 1.7.1 and 1.7.2 of Guidelines for Procurement of Goods and Works Under the Islamic Development Bank Financing, May 2009 are prevailed)	Not having been excluded as a result of the Beneficiary's country laws or official regulations, or by the Boycott Regulations of the Organization of the Islamic Cooperation, the League of Arab States and the African Union, in accordance with ITB 4.8	Must meet requirement	Existing JV must meet requirement	Must meet requirement	N / A	Letter of Bid

Factor	2.2 Historical Contract Non-Performance					
Sub-Factor	Requirement	Criteria				Documentation Required
		Bidder				
		Single Entity	Joint Venture, Consortium or Association			
			All partners combined	Each partner	At least one partner	
2.2.1 History of non-performing contracts	Non-performance of a contract did not occur within the last **five (5)** years prior to the deadline for application submission, based on all information on fully settled disputes or litigation. A fully settled dispute or litigation is one that has been resolved in accordance with the Dispute Resolution Mechanism under the respective contract, and where all appeal instances available to the bidder have been exhausted.	Must meet requirement by itself or as partner to past or existing JV	N / A	Must meet requirement by itself or as partner to past or existing JV	N / A	Form CON – 2
2.2.2 Pending Litigation	All pending litigation shall in total not represent more than **twenty percent (20%)** of the Bidder's net worth and shall be treated as resolved against the Bidder.	Must meet requirement by itself or as partner to past or existing JV	N / A	Must meet requirement by itself or as partner to past or existing JV	N / A	Form CON – 2

Factor	2.3 Financial Situation					
	Criteria					Documentation Required
Sub-Factor	Requirement	Bidder				
		Single Entity	Joint Venture, Consortium or Association			
			All partners combined	Each partner	At least one partner	
2.3.1 Historical Financial Performance	Submission of audited balance sheets or if not required by the law of the bidder's country, other financial statements acceptable to the Employer, for the last five [5] years to demonstrate the current soundness of the bidders financial position and its prospective long term profitability. (criterion 1) (criterion 2)	Must meet requirement	N / A	Must meet requirement	N / A	Form FIN – 3.1 with attachments
2.3.2 Average Annual Turnover	Minimum average annual turnover of **1.9 billion FCFA: lot 1** **1.3 billion FCFA: lot 2** **or equivalent** , calculated as total certified payments received for contracts in progress or completed, within the last five (5) years	Must meet requirement	Must meet requirement	Must meet **Thirty** percent (30 %) of the requirement	Must meet **sixty** percent (60 %) of the requirement	Form FIN –3.2

Factor	2.3 Financial Situation					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture, Consortium or Association			
			All partners combined	Each partner	At least one partner	
2.3.3 Financial Resources	The Bidder must demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credit, and other financial means, other than any contractual advance payments to meet: (1) the following cash-flow requirement: **680 million FCFA: lot 1** **450 million FCFA: lot 2** **or equivalent** and (ii) the overall cash flow requirements for this contract and its concurrent commitments.	Must meet requirement	Must meet requirement	Must meet **Thirty** percent (**30 %**) of the requirement	Must meet **sixty** percent (**60 %**) of the requirement	Form FIN –3.3

Factor	2.4 Experience					
Sub-Factor	Requirement	Criteria				Documentation Required
		Bidder				
		Single Entity	Joint Venture, Consortium or Association			
			All partners combined	Each partner	At least one partner	
2.4.1 General Experience	Experience under contracts in the role of contractor, subcontractor, or management contractor for at least the last **five** [___5_] years prior to the applications submission deadline, and with activity in at least nine (9) months in each year.	Must meet requirement	N / A	Must meet requirement	N / A	Form EXP-4.1
2.4.2 Specific Experience	(a)Participation as contractor, management contractor, or subcontractor, in at least one (1) contracts within the last ten(10) years , with a value of at least : **1.5 billion FCFA: lot 1** **1 billion FCFA: lot 2** that have been successfully and substantially completed and that are similar to the proposed Works. The similarity shall be based on the physical size, complexity, methods/technology or other characteristics as described in Section VI, Employer's Requirements.	Must meet requirement	Must meet requirements for all characteristics	N / A	Must meet requirement for one characteristic	Form EXP 2.4.2(a)

Factor	2.4 Experience					
Sub-Factor	Criteria					Documentation Required
	Requirement	Bidder				
		Single Entity	Joint Venture, Consortium or Association			
			All partners combined	Each partner	At least one partner	
2.4.2 Specific Experience	b) For the above or other contracts executed during the period stipulated in 2.4.2(a) above, a minimum experience in the following key activities: - 2 building construction works	Must meet requirements	Must meet requirements	N / A	Must meet requirements	Form EXP-2.4.2(b)

2.5 Personnel

The Bidder must demonstrate that it will have the personnel for the key positions that meet the following requirements:

Personnel lot 1

No.	Position	Total Work Similar Experience (years)	In Similar Works Experience (years)
1	Works Director (Civil Engineer with at least a Masters Degree) and is subscribed in the Cameroon Order of Civil Engineer if a Cameroonian	10	5
2	Electro-mechanical Engineer or equipment Engineer.	10	5
3	7 Foremen (Civil Engineer or Senior Civil Engineering technician)	8	4
4	Environmentalist with at least bachelor's degree in environmental science , Rural Engineering, Geography or Forestery	8	4

Personnel lot 2

No.	Position	Total Work Similar Experience (years)	In Similar Works Experience (years)
1	Works Director (Civil Engineer with at least a Masters Degree) and is subscribed in the Cameroon Order of Civil Engineer if a Cameroonian	10	5
2	Electro-mechanical Engineer or equipment Engineers	10	5
3	3 Foremen (Civil Engineer or Senior civil Engineering technician)	8	4
4	Environmentalist with at least bachelor's degree in environmental science , Rural Engineering, Geography or Forestery	8	4

The Bidder shall provide details of the proposed personnel and their experience records in the relevant Forms included in Section IV, Bidding Forms.

2.6 Equipment

The Bidder must demonstrate that it will have access to the key Contractor's equipment listed hereafter:

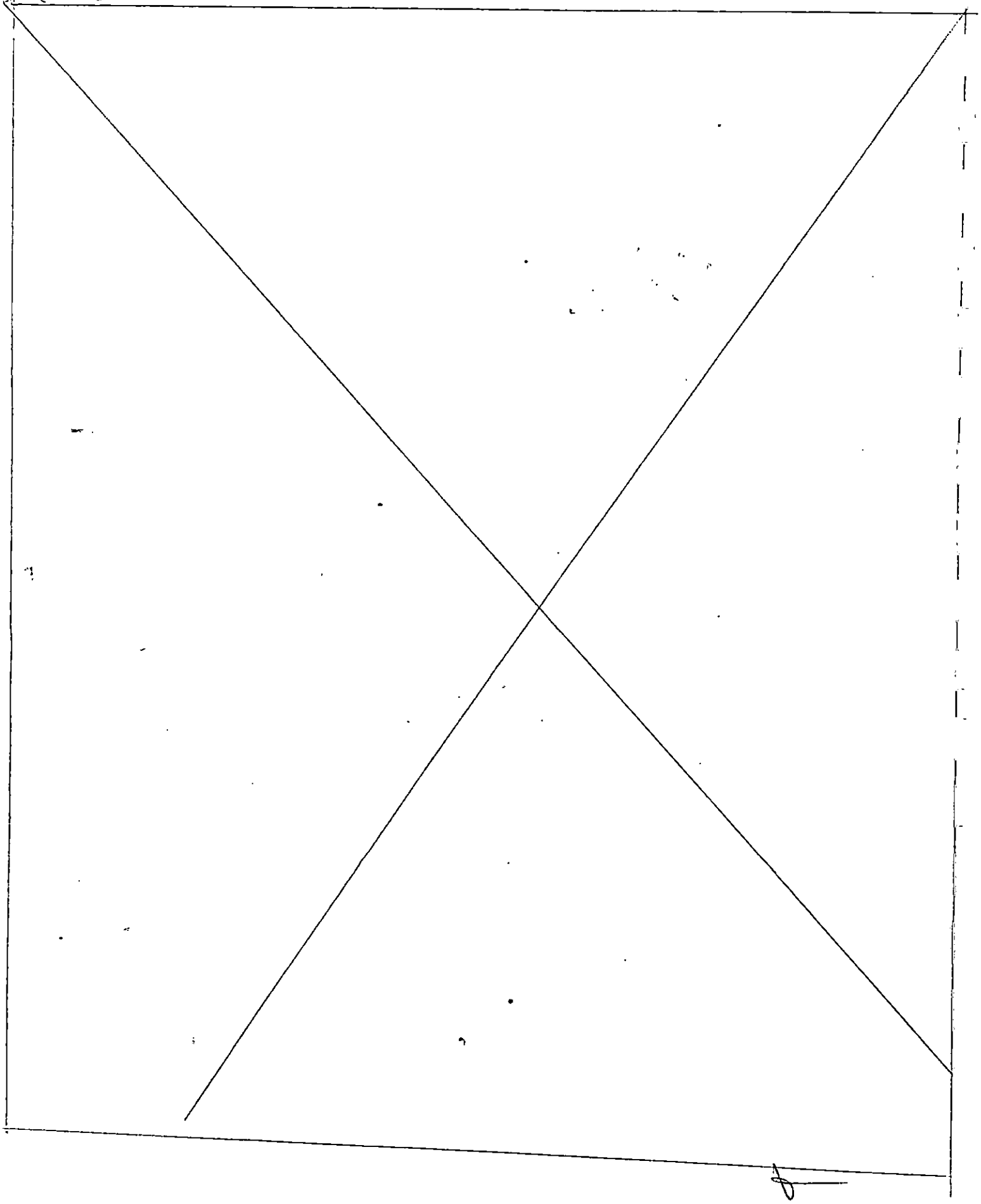
Equipment for lot1

No.	Equipment Type and Characteristics	Minimum Number required
1	Concrete mixer 1m3 mix volume less than 5 years old	05
2	Hand Vibrator less than 5 years old	07
3	Dump truck at least 7 ton	2
4	Pick up	03

Equipment for lot 2

No.	Equipment Type and Characteristics	Minimum Number required
1	Concrete mixer 1m3 mix volume less than 5 years old	02
2	Hand Vibrator less than 5 years old	03
3	Dump truck at least 7 ton	2
4	Pick up	02

The Bidder shall provide further details of proposed items of equipment using the relevant Form in Section IV.



Section IV - Bidding Forms

Table of Forms

Letter of Bid

The Bidder must prepare the Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and address.
Note: *All italicized text is for use in preparing these form and shall be deleted from the final products.*

Date: _____
Bidding No.: _____
Invitation for Bid No.: _____

To:

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) Clause 8;

(b) We offer to execute in conformity with the Bidding Documents the following Works: _____;

(c) The total price of our Bid, excluding any discounts offered in item (d) below is: _____;

(d) The discounts offered and the methodology for their application are: _____;

(e) Our bid shall be valid for a period of _____ [*insert validity period as specified in ITB 18.1.*] days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(f) If price adjustment provisions apply, the Table(s) of Adjustment Data shall be considered part of this Bid;[6]

(g) If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Document;

(h) Our firm, including any subcontractors or suppliers for any part of the Contract, have nationalities from eligible countries;

(i) We, including any subcontractors or suppliers for any part of the contract, do not have any conflict of interest in accordance with ITB 4.3;

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[6] *Include if price adjustment provisions apply in the Contract in accordance with PCC Sub-Clause 13.8 Adjustments for Changes in Cost.*

(j) We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process in accordance with ITB 4.3, other than alternative offers submitted in accordance with ITB 13;

(k) Our firm, its affiliates or subsidiaries, including any Subcontractors or Suppliers for any part of the contract, has not been declared ineligible by the Bank, under the Employer's country laws or official regulations or by the Boycott Regulations of the Organization of the Islamic Cooperation, the League of Arab States and the African Union;

(l) We are not a government owned entity / We are a government owned entity but meet the requirements of ITB 4.5;[7]

(m) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract: [8]

Name of Recipient	Address	Reason	Amount

(n) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed;

(o) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive; and

(p) If awarded the contract, the person named below shall act as Contractor's Representative: _____

Name: _____

In the capacity of: _____

Signed: _____

Duly authorized to sign the Bid for and on behalf of: _____

Date: _____

[7] *Use one of the two options as appropriate.*
[8] *If none has been paid or is to be paid, indicate "none".*

Schedules

Bill of Quantities/ Schedules of Prices

LOT 1: CONSTRUCTION OF 7 PASTURE DEMONSTRATION CENTERS, CONSTRUCTION/RENOVATION OF 7 DIVISIONAL VETERINARY CLINICS, 20 SUB DIVISIONAL VETERINARY CENTERS, 5 BORDER VETERINARY CONTROL POSTS, 50 MEAT SALES SLABS, 15 SMALL SLAUGHTER HOUSES AND A FISH FARMING CENTRE

A	BILL OF QUANTITIES FOR THE CONSTRUCTION OF A PASTURE DEMONSTRATION CENTRE OFFICE				
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL COST
100	**PRELIMINARY WORKS**				
101	Installation of worksite	ff	1.00		
102	Clearing of Site	m2	549.05		
	SUB-TOTAL 100				
200	**EARTHWORKS**				
201	Top soil removal to spoil heaps for reuse and excavation to reduced level as indicated	m2	299.00		
202	Digging of trenches	m3	64.75		
203	Backfilling	m3	46.25		
	SUB-TOTAL 200				
300	**WORKS BELOW GROUND LEVEL (FOUNDATION)**				
301	Blinding concrete 5cm Pc 150kg/m³	m3	4.63		
302	Masonry foundation in 20cm blocks with conc. Pc 200kg/m3 infill	m2	92.50		
303	R.C. Pc350kg/m3 for footings, pillars and beams	m3	9.86		
304	Slab (8 cm thick)	m2	169.55		
	SUB-TOTAL 300				
400	**WORKS IN ELEVATION/WALL MASONARY**				
401	Blocks of 15x20x40cm	m2	180.92		
402	Rendering with cement mortar Pc 300kg/m3	m2	361.84		
403	R.C. Pc 350kg/m3 for pillars, lintels and beams	m3	6.11		
404	Floor finish in ceramic floor tiles 300x300mm	m2	175.50		
	SUB-TOTAL 400				
500	**FRAMEWORK AND ROOFING**				
501	Truss (Double)	No.	16.00		
502	Purlins	m3	2.50		
503	Plywood 4mm for internal and veranda Ceiling	m2	130.42		
504	Plain metal sheet 0.3mm for the eaves ceiling	m2	40.61		
505	Roofing sheet High rib (6m- 5/10mm)	m2	245.50		
506	Fascia board (High rib alu 0.35)	ml	62.30		
507	Aluminium soffit plane sheets 70cm large 5/10mm	ml	19.05		
508	Ridge cap piece	ml	31.75		

	SUB-TOTAL 500				
600	**OPENNINGS IN WALLS** (Supply and fix)				
601	Metal door of (140x210)cm Complete	No.	2.00		
602	Four panel wooden door of (100 x 210)cm Complete	No.	3.00		
603	Wooden door of (90 x 210)cm Complete	No.	6.00		
604	Metal door of (80x210)cm Complete	No.	1.00		
605	Double gliding window in aluminum framing (140x120)cm complete including window protectors	No.	9.00		
606	Double gliding window in aluminum framing (70x60)cm complete including window protectors	No.	4.00		
607	Angle bar 45 at the threshold	ml	8.76		
	SUB-TOTAL 600				
700	**CONDUITING & ELECTRICAL WORKS**				
701	Conduit pipes	roll	1.00		
702	Cables V.G.V 1.5mm2 for ceiling	roll	1.00		
703	Cables TH 2.5 mm2	roll	2.00		
704	Fluorescent lamps 4ft complete	No.	19.00		
	Supply and install Incandescent lamps	No.	3.00		
705	Supply and install sockets	No.	22.00		
706	Supply and install two way switches	No.	10.00		
707	Supply and install one way switches	No.	9.00		
708	Supply and install 3 phase distribution board	ff	1.00		
709	Fire extinguishers	No.	1.00		
710	Supply and install fuse boxes	No.	1.00		
711	Supply and install junction boxes	ff	1.00		
716	Supply and install Smoke dictator	No.	6.00		
717	Supply and install Fire alarm	No.	2.00		
	SUB-TOTAL 700				
800	**SANITARY INSTALLATION & SEWAGE DISPOSAL**				
	SUB-TOTAL 800				
900	**PAINTING AND DECORATION**				
901	Whitewash on walls	m2	361.84		
902	Two coats of Pantex 800 on ceiling	m2	165.00		
903	Two coats of Pantex 800 on internal walls	m2	229.49		
904	Two coats of Pantex 1300 on external walls	m2	132.35		
905	Oil paint doors, windows & skirting	m2			
	SUB-TOTAL 900				
1000	**EXTERNAL WORKS/DRAINAGE AND PAVEMENT**				
1001	Gutters in R.C Pc 250kg/m3	ml	65.00		
1002	Concrete Pc 250kg/m3 in veranda Slab	m2	61.50		
1003	ACCESS IMPROVEMENT	KM	0.50		
	SUB-TOTAL 1000				

1100	**OTHER WORKS/ACCESSORIES**				
1101	ADD FOR V I P TOILET WITH 2 SQUATING HOLES	U	1.00		
1102	STUDIES AND CONSRUCTION OF A WELL , AN OVERHEAD TANK, A PUMP AND A SOLAR PANEL	U	1.00		
	SUB-TOTAL 1100				
1200	**EQUIPMENT FOR ONE DEMO CENTER**				
A.	**Equipment For Class rooms**				
1201	Class room tables for trainees	u	50		
1202	Class room tables for trainers	u	2		
1203	Sitting chairs in classrooms	u	52		
1204	Overhead projectors	u	1		
1205	Projector screens	u	1		
1206	Flipchart board	u	1		
1207	Ink boards	u	1		
1201	Class room tables for trainees	u	50		
1202	Class room tables for trainers	u	2		
1203	Sitting chairs in classrooms	u	52		
1204	Overhead projectors	u	1		
1205	Projector screens	u	1		
1206	Flipchart board	u	1		
1207	Ink boards	u	1		
B	**Office equipment**				
1208	Photocopier	u	1		
1209	laptops	u	2		
1210	Computer desktop	u	2		
1211	Automatic voltage regulator	u	2		
1212	Printers	u	1		
1213	Computer table	u	2		
1214	Stapling machines(giant)	u	2		
1215	Binding machine	u	2		
1216	Paper perforators	u	2		
1217	Calculators	u	2		
1218	Digital Cameras	u	2		
1219	Book office cupboards	u	2		
1220	Office tables	u	2		
1221	Office chairs	u	2		
1222	Office visitors chairs	u	6		

1223	Window curtains	u	2		
1224	Coffee makers	u	1		
C	**Stationery**				
1225	Pens (packets)	packets	10		
1226	Block notes(packets)	packets	10		
1227	Flip chart papers	Rolls	10		
1228	Bold markers(packets)	packets	10		
1229	Chalk	packets	10		
1230	Papers (packets)	packets	20		
1231	Laser printer Ink	u	10		
1232	Binding spirals	packets	20		
1233	Transparent papers	packets	10		
1234	Hard cover papers	packets	00		
1235	Staples	packets	30		
1236	Paper clips	packets	30		
	SUB-TOTAL 1200				
	TOTAL WITHOUT TAXES FOR ONE(1) CENTER				
A	TOTAL WITHOUT TAXES FOR SEVEN(7) CENTERS				

B	BILL OF QUANTITIES THE CONSTRUCTION OF A ZOO-TECHNICAL /VETERINARY CENTRE				
ITEM	DESCRIPTION	UNIT	QTY.	U. P	TOTAL COST
100	PRELIMINARY WORKS				
101	Installation of worksite	ff	1.00		
102	Clearing of Site	m2	876.0		
	SUB-TOTAL 100				
200	EARTHWORKS (execute)				
201	Top soil removal to spoil heaps for reuse and excavation to reduced level as indicated	m2	459.30		
	SUB-TOTAL 200				
300	WORKS BELOW GROUND LEVEL (FOUNDATION)				
301	Digging of foundation trenches	m3	76.30		
302	Backfilling	m3	30.50		
303	Blinding concrete 5cm THICK Pc150kgm3	m3	2.41		
304	Foundation blocks of 20x20x40cm filled with concrete Pc 200kg/m3	m2	48.18		
305	R.C. Pc 350kg/m3 for footings, foundation pillars and ground beams	m3	5.71		
306	Concrete Pc 250kg/m3 in Slab (5 cm thick)	m3	5.71		
	SUB-TOTAL 300				
400	WORKS IN ELEVATION/WALL MASONARY				
401	Sandcreed blocks of 15x20x40cm	m2	240.50		
402	Plastering with cement mortar Pc 300 kg/m3	m2	481.00		
403	R.C. for pillars, lintels, and beams Pc 350 kg/m3	m3	5.47		
405	Toilet floor finish in ceramic floor tiles 300x300mm	m2	7.95		
406	Toilet wall finish in ceramic floor tiles 200x300mm up to a height of 2.1m	m2	36.09		
405	Floor finish in cement mortar (5cm) dosed at 400kg/m3	m3	114.20		
	SUB-TOTAL 400				
500	FRAMEWORK AND ROOFING				
501	Rafters prepared and placed in position for residence and center	ml	460.22		
502	Purlins prepared and assembled in position	ml	205.95		
503	Plywood 4mm for internal Ceiling and veranda	m2	113.20		
504	Plain metal sheet 0.3mm for the roof eaves	m2	56.04		
505	Roofing sheet High rib (6m- 5/10mm)	m2	193.43		
506	Fascia board (High rib alu 0.35)	ml	52.68		
507	Ridge cap piece	ml	43.51		
	SUB-TOTAL 500				
600	OPENNINGS IN WALLS (Supply and fix)				
601	Doors of (120x210)cm Complete	No.	2.00		
	Doors of (100x210)cm Complete	No.	2.00		
	Doors of (90x210)cm Complete	No.	4.00		

	Doors of (80 x 210)cm Complete	No.	3.00		
	Double gliding window in aluminum framing (140x120)cm complete including window protectors	No.	2.00		
	Double gliding window in aluminum framing (120x120)cm complete including window protectors	No.	7.00		
	Double gliding window in aluminum framing(60x60)cm complete including window protectors	No.	3.00		
602	Angle bar 45 at the threshold	ml	6.70		
	SUB-TOTAL 600				
700	**CONDUITING & ELECTRICAL WORKS**				
701	Conduit pipes	roll	3.00		
702	Cables V.G.V 1.5mm2 for ceiling	roll	3.00		
703	Cables TH 2.5 mm2	roll	3.00		
704	Provide and install Fluorescent lamps 4ft	No.	14.00		
705	Provide and install Incandescent lamps	No.	3.00		
706	Provide and install two way switches	No.	2.00		
707	Provide and install one way switches	No.	7.00		
708	Provide and install sockets	No.	22.00		
709	Provide and install a complete a 3 phase distribution board.	ff	1.00		
710	Provide and install fuse boxes	ff	1.00		
711	Provide and install junction boxes	ff	1.00		
712	Provide and install a service panel	No	1.00		
	SUB-TOTAL 700				
800	**SANITARY INSTALLATION & SEWAGE DISPOSAL**				
801	Treatment unit(septic tank, soak away and inspection chambers)	U	1.00		
	SUB-TOTAL 800				
900	**PAINTING AND DECORATION**				
901	Whitewash on walls	m2	481.00		
902	Two coats of Pantex 800 on ceiling	m2	113.20		
903	Two coats of Pantex 800 on internal walls	m2	347.16		
904	Two coats of Pantex 1300 on external walls	m2	133.84		
905	Oil paint doors & skirting(50cm height)	m2	47.80		
	SUB-TOTAL 900				
1000	**EXTERNAL WORKS** (construct)				
1001	Gutters 20x40cm in Pc 300kg/m3	ml	53.40		
1002	Concreting of external perimeter	m2	24.90		
1003	Incinerator	No	1.00		
1004	Add for quarantine	u	1.00		
	SUB-TOTAL 1000				
	TOTAL WITHOUT TAXES FOR ONE(1) CENTER				
	TOTAL FOR TWENTY (20) CENTERS				

C	BILL OF QUANTITIES FOR THE CONSTRUCTION OF A BORDER VETERINARY CONTROL POST				
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL COST
100	**PRELIMINARY WORKS**				
101	Installation of worksite	ff	1.00		
102	Clearing of Site	m2	154.38		
	SUB-TOTAL 100				
200	**EARTHWORKS**				
201	Top soil removal to spoil heaps for reuse and excavation to reduced level as indicated	m2	140.00		
	SUB-TOTAL 200				
300	**WORKS BELOW GROUND LEVEL (FOUNDATION)**				
301	Digging of foundation trenches	m3	14.39		
302	Backfilling	m3	0.30		
303	Blinding concrete 5cm dosed at 150kg/m3	m3	0.82		
304	Masonry foundation in 20cm blocks with conc. Pc 200kg/m3 infill	m2	17.89		
305	R.C. for footings, pillars and beams at 300kg/cm3	m3	2.36		
306	Slab (8 cm thick) at 250kg/cm3	m3	2.83		
	SUB-TOTAL 300				
400	**WORKS IN ELEVATION/WALL MASONARY**				
401	Supply and erect 15x20x40cm cement blocks jointed with a mortar mix of 1:3	m2	93.10		
402	Supply, mix and apply two coats of 15mm 1:4 cement mortar on all walls	m2	186.20		
403	R.C. for pillars, lintels and beams Pc 300kg/m3	m3	2.16		
404	Floor finish in ceramic floor tiles 300x300mm	m2	2.36		
	SUB-TOTAL 400				
500	**FRAMEWORK AND ROOFING**				
501	Truss in 2/6" timber prepared and fitted in position	U	6.00		
502	Purlins	ml	88.90		
503	Plywood 4mm for internal and veranda Ceiling	m2	17.89		
504	Plain metal sheet 0.3mm for the eaves ceiling	m2	20.57		
505	Roofing sheet High rib (6m- 5/10mm)	m2	64.90		
506	Fascia board (High rib alu 0.35)	ml	48.00		
507	Ridge cap piece	ml	8.89		
	SUB-TOTAL 500				
600	**OPENNINGS IN WALLS**				
601	Doors of (100x210)cm Complete	No.	1.00		
602	Doors of (90x210)cm Complete	No.	1.00		
603	Doors of (80 x 210)cm Complete	No.	1.00		

604	Double gliding window in aluminum framing (140x120)cm complete including window protectors	No.	2.00		
605	Double gliding window in aluminum framing (120x120)cm complete including window protectors	No.	1.00		
606	Double gliding window in aluminum framing(60x60)cm complete including window protectors	No.	1.00		
607	Angle bar 45 at the threshold	ml	5.20		
	SUB-TOTAL 600				
700	**CONDUITING & ELECTRICAL WORKS**				
701	Conduit pipes	roll	1.00		
702	Cables V.G.V 1.5mm2 for ceiling	roll	1.00		
703	Cables TH 2.5 mm2	roll	1.00		
704	Fluorescent lamps 4ft complete	No.	4.00		
705	Supply and install incandescent lamps	No.	1.00		
706	Supply and install two way switches	No.	4.00		
707	Supply and install one way switches	No.	1.00		
708	Supply and install sockets	No.	6.00		
709	Supply and install 3 phase distribution board	ff	1.00		
710	Supply and install junction boxes	ff	1.00		
711	Supply and install fuse box	No.	1.00		
	SUB-TOTAL 700				
800	**SANITARY INSTALLATION & SEWAGE DISPOSAL**				
	SUB-TOTAL 800				
900	**PAINTING AND DECORATION**				
901	Whitewash on walls	m2	186.20		
902	Two coats of Pantex 800 on ceiling	m2	88.90		
903	Two coats of Pantex 800 on internal walls	m2	108.50		
904	Two coats of Pantex 1300 on external walls	m2	77.70		
905	Oil paint doors & skirting	m2	25.70		
	SUB-TOTAL 900				
1000	**EXTERNAL WORKS**				
1001	Gutters in concrete Pc250kg/m3	ml	28.90		
1002	Concreting of external perimeter Pc 250KG/M3	m3	0.34		
	SUB-TOTAL 1000				
	SUMMARY				
	TOTAL WITHOUT TAXES FOR ONE(1) CONTROL POST				
	TOTAL WITHOUT TAXES FOR FIVE(5) CONTROL POSTS				

D	BILL OF QUANTITIES FOR THE CONSTRUCTION OF A MEAT SALES SLAB				
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL COST
100	PRELIMINARY WORKS				
101	Installation of worksite	ff	1.00		
102	Clearing of Site	m2	83.00		
	SUB-TOTAL 100				
200	EARTHWORKS				
201	Top soil removal to spoil heaps for reuse and excavation to reduced level as indicated	m2	37.50		
	SUB-TOTAL 200				
300	WORKS BELOW GROUND LEVEL (FOUNDATION)				
301	Digging of foundation trenches	m3	3.21		
302	Backfilling of foundation trenches	m3	2.03		
303	Blinding concrete 5cm Pc 150kg/m³	m3	0.33		
304	Masonry foundation in 20cm blocks with conc. Pc 200 kg/m3 infill	m2	5.90		
305	R.C. for footings and pillars Pc 300kg/m3	m3	0.25		
306	Slab (8cm thick) with Pc 300kg/m3	m3	0.69		
	SUB-TOTAL 300				
400	WORKS IN ELEVATION/WALL MASONRY				
401	Blocks of 15x20x40cm	m²	2.00		
402	Plastering of walls with cement mortar Pc 300kg/m3 finished smooth with trowel.	m²	4.00		
403	R.C for slab and intermediate support walls of thickness 20cm with Pc 350kg/m3	m3	0.58		
404	R.C. for pillars and beams Pc 300kg/m3	m3	0.67		
	SUB-TOTAL 400				
500	FRAMEWORK AND ROOFING				
501	Truss in 2/6" timber prepared and fitted in position	No.	3.00		
502	Purlins	ml	31.20		
503	Plain metal sheet 0.3mm for the e ceiling	m2	0.00		
504	Roofing sheet High rib (6m- 5/10mm)	m2	19.55		
505	Fascia board (High rib alu 0.35)	ml	16.60		
506	Ridge cap piece	ml	5.20		
	SUB-TOTAL 500				
600	OPENNINGS IN WALLS				
	SUB-TOTAL 600				-
700	CONDUITING & ELECTRICAL WORKS				
	SUB-TOTAL 700				-
800	SANITARY INSTALLATION & SEWAGE DISPOSAL				
	SUB-TOTAL 800				-

900	**PAINTING AND DECORATION**				
	SUB-TOTAL 900				-
1000	**EXTERNAL WORKS**				
1001	Gutters in R.C Pc 250kg/m3	ml	15.00		
1002	Concrete Pc 250kg/m3 to external perimeter	m3	0.26		
	SUB-TOTAL 1000				
1100	Construction of an incinerator (2.0x2.0)m in fire burnt bricks under a hip roof on building (2.5x2.5)m and 15X15cm PILLARS of height 2.8m AND TOP BEAM in R.C Pc 300kg/m3	U	1.00		
	SUB-TOTAL 1100				
	TOTAL WITHOUT TAXES FOR ONE(1) SALES SLAB				
	TOTAL WITHOUT TAXES FOR FIFTY (50) SALES SLABS				

E	BILL OF QUANTITIES FOR THE CONSTRUCTION OF A SLAUGHTER SLAB				
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL COST
100	PRELIMINARY WORKS				
101	Installation of work site	ff	1.00		
102	Clearing of Site	m2	110.00		
	SUB-TOTAL 100				
200	EARTHWORKS				
201	Top soil removal to spoil heaps for reuse and excavation to reduced level as indicated	m2	64.00		
	SUB-TOTAL 200				
300	WORKS BELOW GROUND LEVEL (FOUNDATION)				
301	Digging of foundation trenches	m3	4.32		
302	Backfilling of foundation trenches	m3	2.59		
303	Blinding concrete 5cm	m3	0.43		
304	Masonry foundation in 20cm blocks with conc. Pc200kg/m3 infill	m2	7.36		
305	R.C. for footings and pillars dosed at 350kg/m3	m3	0.50		
306	Creation of internal drainage	ml	7.40		
307	Slab (10cm thick) with Pc 300kg/m3	m3	2.79		
	SUB-TOTAL 300				
400	WORKS IN ELEVATION/WALL MASONRY				
401	Blocks of 15x20x40cm for gable end walls	m2	4.18		
402	Plastering with cement mortar Pc 300kg/m3 smooth finish	m2	0.00		
403	R.C. for pillars and beams with Pc 300kg/m3	m3	2.58		
404	R.C. for working slab and intermediate supports Pc 300kg/m3	m3	1.15		
404	Floor finish in cement mortar (5cm) dosed at 400kg/m3	m3	0.93		
	SUB-TOTAL 400				
500	FRAMEWORK AND ROOFING				
501	Truss in 2/6" timber prepared and fitted in position	No.	5.00		
502	Purlins	ml	60.80		
503	Plywood 4mm for the entire building	m2	0.00		
504	Plain metal sheet 0.3mm for gable end	m2	0.00		
505	Roofing sheet High rib (6m- 5/10mm)	m2	74.18		
506	Fascia board (High rib alu 0.35)	ml	30.00		
507	Ridge cap piece	ml	7.60		
	SUB-TOTAL 500				
600	METALWORKS				
601	Floor anchoring equipment for horn anchorage	U	1.00		
	SUB-TOTAL 600				
700	CONDUITING AND ELECTRICAL WORKS				
	SUB-TOTAL 700				
800	SANITARY INSTALLATION & SEWAGE DISPOSAL				

801	Provision of water and all installation	U	1.00		
802	Drain Pipe PVC 100mm	U	2.00		
	SUB-TOTAL 800				
900	**PAINTING AND DECORATION**				
	SUB-TOTAL 900				
1000	**EXTERNAL WORKS**				
1001	Gutters in R.C Pc 250kg/m3	ml	21.40		
1002	Concreting of external perimeter 8cm thick, Pc 250kg/m3	m3	0.51		
1003	Soak away pit and inspection chambers	U	1.00		
1004	Provision for water facility (well pump and overhead tank)	U	1.00		
	SUB-TOTAL 1000				
	TOTAL WITHOUT TAXES FOR ONE(1) SLAUGHTER SLAB				
	TOTAL WITHOUT TAXES FOR FIFTEEN (15) SLAUGHTER SLABS				

F	BILL OF QUANTITIES FOR THE REHABILITATION AND EXTENSION OF THE DIVISIONAL VETERINARY CLINIC FOR BUI				
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL COST
100	**PRELIMINARY WORKS**				
101	Installation of worksite	ff	1.00		
102	Demolition works and Clearing of Site	ff	1.00		
	SUB-TOTAL 100				
200	**EARTHWORKS**				
201	Top soil removal to spoil heaps for reuse and excavation to reduced level as indicated	m2	0.00		
	SUB-TOTAL 200				
300	**WORKS BELOW GROUND LEVEL (FOUNDATION)**				
301	Digging of foundation trenches	m3	6.50		
302	Backfilling of foundation trenches	m3	3.90		
303	Blinding concrete 5cm	m3	0.52		
304	Masonry foundation in 20cm blocks with conc. Pc 200 kg/m3 infill	m^2	10.40		
305	R.C. for footings, pillars and beams Pc 300kg/m3	m3	1.28		
306	Floor concrete Slab (8 cm thick) conc. Pc 250 kg/m3	m3	4.27		
	SUB-TOTAL 300				
400	**WORKS IN ELEVATION/WALL MASONARY**				
401	Blocks of 15x20x40cm for walls including support walls to carry slab in the LAB	m2	56.62		
402	Rendering with cement mortar Pc 300kg/m3	m2	255.12		
403	R.C. for pillars, lintels, and chain beams Pc 300kg/m3 including R.C for the 15cm slab in the LAB	m3	2.25		
404	Floor finish in ceramic floor tiles 300x300mm	m2	53.43		
	SUB-TOTAL 400				
500	**FRAMEWORK AND ROOFING**				
501	Truss in 2/6" timber prepared and fitted in position	U	8.00		
502	Purlins prepare and fitted in position	ml	113.00		
503	Plywood 4mm for internal and veranda Ceiling	m2	53.43		
504	Plain metal sheet 0.3mm for the eaves ceiling	m2	24.36		
505	Roofing sheet High rib (6m- 5/10mm)	m2	92.21		
506	Fascia board (High rib alu 0.35)	ml	38.92		
507	Ridge cap piece and valleys	ml	11.30		
	SUB-TOTAL 500				
600	**OPENNINGS IN WALLS** (Supply and fix)				
601	External metal door of (100x210)cm Complete	No.	1.00		
	External metal door of (90x210)cm Complete	No.	1.00		
	Four panel hard wood door of (90 x 210)cm Complete	No.	2.00		
	Hard wood Door of (70 x 210) Complete	No.	1.00		

	Double gliding window in aluminum framing (140x120)cm complete including window protectors	No.	6.00		
	Double gliding window in aluminum framing(60x60)cm complete including window protectors	No.	2.00		
602	Angle bar 45 at the threshold	ml	3.00		
	SUB-TOTAL 600				
700	**CONDUITING & ELECTRICAL WORKS**				
701	Conduit pipes	roll	1.00		
702	Cables V.G.V 1.5mm2 for ceiling	roll	3.00		
703	Cables TH 2.5 mm2	roll	3.00		
704	Fluorescent lamps 4ft complete	No.	10.00		
705	Round bulbs + holders	No.	1.00		
706	Switches + sockets built-in	No.	14.00		
	SUB-TOTAL 700				
800	**SANITARY INSTALLATION & SEWAGE DISPOSAL**				
801	Complete sinks, wash hand basins, toilet pots	U	1.00		
802	Complete plumbing installations and fittings	U	4.00		
	SUB-TOTAL 800				
900	**PAINTING**				
901	Whitewash on walls	m2	255.12		
902	Two coats of Pantex 800 on ceiling	m2	53.43		
903	Two coats of Emulsion paint on internal walls	m2	157.96		
904	Two coats of Pantex 1300 on external walls	m2	97.16		
905	Oil paint doors, windows & skirting	m2	32.25		
	SUB-TOTAL 900				
1000	**EXTERNAL WORKS**				
1001	Gutters in R.C Pc 250kg/m3	ml	43.00		
1002	Concrete Pc 250kg/m3 in external veranda Slab (8 cm thick)	m3	1.95		
1003	R.C Pc 300kg/m3 for dip slab and walls	m3	0.50		
1004	Complete sewage treatment unit	U	1.00		
1005	Prepare and Point stone work and pavement in front of building	U	1.00		
	SUB-TOTAL 1000				
	GRAND TOTAL BUI EXCLUDING TAXES				

G	BILL OF QUANTITIES FOR THE REHABILITATION OF THE DIVISIONAL VETERINARY CLINIC FOR DONGA MATUNG				
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL COST
100	**PRELIMINARY WORKS** (execute)				
101	Installation of worksite	ff	1.00		
102	Demolition and Clearing of Site	ff	1.0		
	SUB-TOTAL 100				
200	**EARTHWORKS** (execute)				
201	Top soil removal to spoil heaps for reuse and excavation to reduced level as indicated	m2	0.00		
202	Digging of trenches	m3	0.00		
203	Backfilling	m3	0.00		
	SUB-TOTAL 200				
300	**WORKS BELOW GROUND LEVEL (FOUNDATION)**				
301	Blinding concrete 5cm THICK Pc 150kg/m3	m3	0.00		
302	Foundation blocks of 20x20x40cm filled with concrete. Pc200 kg/m3	m2	0.00		
303	R.C. Pc 350kg/m3 for footings, foundation pillars and ground beams	m3	0.00		
304	Concrete Pc 250kg/m3 in Slab (5 cm thick)	m3	0.00		
	SUB-TOTAL 300				
400	**WORKS IN ELEVATION/WALL MASONARY**				
401	Sand creed blocks of 15x20x40cm	m2	0.00		
402	Plastering with cement mortar Pc 300 kg/m3	m2	132.52		
403	R.C. for pillars, lintels, and beams Pc 350 kg/m3	m3	0.00		
404	Toilet floor finish in ceramic floor tiles 300x300mm	m2	17.40		
405	Toilet wall finish in ceramic floor tiles 200x300mm up to a height of 2.1m	m2	40.10		
406	Floor finish in cement mortar (5cm) dosed at 400kg/m3	m2	285.00		
	SUB-TOTAL 400				
500	**FRAMEWORK AND ROOFING**				
501	Rafters 2/6" prepared and fitted in position	N0	15.00		
502	Purlins prepared and assembled in position	ml	350.00		
503	Plywood 4mm for internal Ceiling and veranda	m2	210.00		
504	Plain metal sheet 0.3mm for the roof eaves	m2	68.00		
505	Roofing sheet (3m- 5/10mm)	m2	200.00		
506	Fascia board (High rib alu 0.35)	ml	50.00		
507	Ridge cap piece	ml	20.90		
	SUB-TOTAL 500				
600	**REPAIRS OF OPENNINGS** (Supply and fix)				
601	External double shutter metallic door of (150x200)cm Complete	No.	1.00		
	External metallic Door of (100x200)cm Complete	No.	1.00		

	Doors of (90x210)cm Complete	No.	0.00		
	Doors of (80 x 210)cm Complete	No.	0.00		
	Window(150x130)cm replace damaged louvers /panes	U	15.00		
	Window(100x130)cm replace damaged louvers/panes	U	2.00		
	Window(100x80)cm replace damaged louvers/panes	U	3.00		
602	Angle bar 45 at the threshold	ml	4.00		
	SUB-TOTAL 600				
700	**CONDUITING & ELECTRICAL WORKS**				
701	Conduit pipes	roll	2.00		
702	Cables V.G.V 1.5mm2 for ceiling	roll	1.00		
703	Cables TH 2.5 mm2	roll	1.00		
704	Fluorescent lamps 4ft complete	No.	0.00		
705	Round bulbs + holders	No.	15.00		
706	Switches + sockets built-in	No.	10.00		
	SUB-TOTAL 700				
800	**SANITARY INSTALLATIONS & SEWAGE DISPOSAL**				
801	Repairs of chambers	FF	1.00		
802	English water closets(toilets pots)	u	3.00		
803	Wash hand basins on columns and mirrors	u	2.00		
	SUB-TOTAL 800				
900	**PAINTING AND DECORATION** (Supply and Apply				
901	Whitewash on walls	m2	673.00		
902	Two coats of Pantex 800 on ceiling	m2	85.26		
903	Two coats of Pantex 800 on internal walls	m2	483.00		
904	Two coats of Pantex 1300 on external walls	m2	190.00		
905	Oil paint doors & skirting(50cm height)	m2	129.95		
	SUB-TOTAL 900				
1000	**EXTERNAL WORKS** (construct)				
1001	Gutters 35x40cm in Pc 300kg/m3	ml	64.00		
1002	Concreting of the external perimeter	m2	68.00		
	SUB-TOTAL1000				
	TOTAL DONGA MANTUNG WITHOUT TAXES				

H	BILL OF QUANTITIES FOR THE REHABILITATION OF THE REGIONAL/DIVISIONAL VETERINARY CLINIC FOR MEZAM				
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL PRICE
100	**PRELIMINARY WORKS**				
101	Installation of worksite	ff	1.00		
102	Demolition works and Clearing of Site	MAN DAY	0.00		
	SUB-TOTAL 100				
200	**EARTHWORKS**				
201	Top soil removal to spoil heaps for reuse and excavation to reduced level as indicated	m2	0.00		
	SUB-TOTAL 200				
300	**WORKS BELOW GROUND LEVEL (FOUNDATION)**				
301	Digging of foundation trenches	m3	0.00		
302	Backfilling	m3	0.00		
303	Blinding concrete 5cm	m3	0.00		
304	Masonry foundation in 20cm blocks with conc. Pc 200 kg/m3 infill	P C	0.00		
305	R.C. for footings, pillars and beams Pc 300kg/m3	m3	0.00		
306	Blocks of 20x20x40cm	M2			
307	Floor concrete Slab (8 cm thick) conc. Pc200kg/m3	m2	0.00		
	SUB-TOTAL 300				
400	**WORKS IN ELEVATION/WALL MASONARY**				
401	Blocks of 15x20x40cm	m2	0.00		
402	Rendering with cement mortar Pc 300kg/m3	m2	0.00		
403	R.C. for pillars, lintels and beams Pc 300kg/m3	m3	0.00		
404	Floor finish in cement paste	m2	70.74		
	SUB-TOTAL 400				
500	**FRAMEWORK AND ROOFING**				
501	Truss in 2/6" timber prepared and fit in position	U	18.00		
502	Purlins	ml	463.14		
503	Plywood 4mm for internal and veranda Ceiling	m2	141.25		
504	Plain metal sheet 0.3mm for the eaves ceiling	m2	0.00		
505	Roofing sheet High rib (6m- 5/10mm)	m2	120.07		
506	Fascia board (High rib alu 0.35)	ml	0.00		
507	Aluminium soffit plane sheets 70cm large 5/10mm	ml	0.00		
508	Ridge cap piece and valleys	ml	25.73		
	SUB-TOTAL 500				
600	**OPENNINGS IN WALLS** (Supply and fix)				
601	Metal door of (150x210)cm Complete	No.	0.00		
	Wooden panel door of (100 x 210)cm Complete	No.	0.00		
	Wooden door of (90 x 210)cm Complete	No.	1.00		
	Wooden door of (80x220)cm Complete	No.	0.00		

	Windows (120x120)cm in aluminum framing glazed in translucent glass	m2	4.00		
602	Angle bar 45 at the threshold	ml	17.25		
	SUB-TOTAL 600				
700	**CONDUITING & ELECTRICAL WORKS**				
701	Conduit pipes	roll	1.00		
702	Cables V.G.V 1.5mm2 for ceiling	roll	1.00		
703	Cables TH 2.5 mm2	roll	1:00		
704	Fluorescent lamps 4ft complete	No.	8.00		
705	Round bulbs + holders	No.			
706	Switches + sockets built-in	No.	4.00		
	SUB-TOTAL 700				
800	**SANITARY INSTALLATION & SEWAGE DISPOSAL**				
801	560×470mm LABORATORY basin complete with bottle trap , 50mmØ floor drain with sieve A.B. C 6KG fire extinguisher and Towel rail	U	1		
802	13mm diameter PVC pressure pipe	m	3		
803	19mm diameter PVC pressure pipe	m	3		
804	25mm diameter PVC pressure pipe	m	10		
805	100mm drain pipes and disposal works	u	1		
	SUB-TOTAL 800				
900	**PAINTING AND DECORATION**				
901	Whitewash on walls	m2	0.00		
902	Two coats of Pantex 800 on ceiling	m2	282.00		
903	Two coats of Emulsion paint on internal walls	m2	917.00		
904	Two coats of Pantex 1300 on external walls	m2	243.00		
905	Oil paint doors, windows & skirting	m2	71.40		
	SUB-TOTAL 900				
1000	**EXTERNAL WORKS**				
1001	15M3 elevated Storage tank	No			
1002	15M3 surface Storage tank	No			
1003	Oversite concrete Pc 200kg/m3	m3			
1004	R.C Pc 300kg/m3 in walk way poles, beam and floor	m3	0.00		
1005	Roofing to walkway complete	U	0.00		
1006	Service Equipment including a 4WD PICK UP	U			
1007	Solar panel for 1.5HP water pump	U			
1008	Gutters in R.C Pc 250kg/m3	ml	0.00		
1009	Concrete Pc 250kg/m3 in Slab (8 cm thick)	m2	0.00		
	SUB-TOTAL 1000				
	TOTAL OFFFICE BLOCK				
	QUARATINE REHABILITATION				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**UNIT PRICE**	**TOTAL COST**
100	**PREPARATORY WORKS**				

101	Installation of work site	ls			
102	Cleaning and grubbing of site	ls	1.00		
	SUB-TOTAL 100				
200	**EARTHWORKS**				
201	Top soil removal to spoil heaps for reuse and excavation to reduced level as indicated	m2	154.00		
	SUB-TOTAL 200				
300	**WORKS BELOW GROUND LEVEL (FOUNDATION)**				
202	Excavation of pit and foundation trenches 50cm deep) to retaining wall	m3	9.50		
203	Backfilling and compacting	m3	2.40		
301	Lean concrete dosed at 150kg/m3 with a thickness of 5cm	m3	0.41		
302	Foundation walls in Masonry block works 20x20x40cm filled with concrete Pc150(stone masonry)	m3	10.80		
303	Reinforced concrete works for footings, columns, ground beams, main slab and cover slabs dozed at 350kg/m3	m3	0.00		
	Plastering of foundation walls and finishing with cement paste	m2			
	SUB-TOTAL 300				
400	**WORKS IN ELEVATION**				
401	Block work of 15x20x40cm	m2	0.00		
402	Plastering of walls to smooth finish with trowel	m2	0.00		
403	Reinforced concrete works for columns, lintels, top plate and beams dozed at 350kg/m3	m3			
404	Cement screed 5cm to floor	m2	84.50		
405	Window openings in aluminum frame glazed	m2			
	SUB-TOTAL 400				
500	**FRAMEWORK AND ROOFING**				
501	Rafter 5 x 15cm for roof	U	9.00		
502	Purlins 5x7cm for the roof	ml	97.60		
503	4 mm plywood ceiling including noggins	m2	69.54		
504	Aluminium sheets for fascia board	m	0.00		
505	Roofing sheets (Tole bac 6m) 5/10 including accessories	m2	70.76		
506	Cover ridging including nails	m	13.00		
507	Corner ridging including nails	m	0.00		
	SUB-TOTAL 500				
600	**OPENNINGS IN WALLS (Supply and fix)**				
601	Metallic doors (80X210)	u	6.00		
	SUB-TOTAL 600				
700	**CONDUITING & ELECTRICAL WORKS**				
	SUB-TOTAL 700				
800	**SANITARY INSTALLATION & SEWAGE DISPOSAL**				
801	Treatment unit (septic tank and soak pit	u			
	SUB-TOTAL 800				

900	PAINTING AND DECORATION				
901	Whitewash on walls	m2	0.00		
902	Painting of the ceiling	m2	0.00		
903	Painting of External walls (Pantex 1300)	m2	84.00		
904	Painting Internal walls (Pantex 800)	m2	0.00		
905	Painting of doors both in and out	m2	38.90		
906	Skirting with oil paint 15cm height both in and out	m2	5.84		
	SUB-TOTAL 900				
1000	EXTERNAL WORKS/DRAINAGE AND PAVEMENT				
1001	Drainage gutters (40x20)cm	ml			
1002	Mass concrete pavement on the veranda surrounding the building dozed at 250kg/m3	m2	1.75		
	SUB-TOTAL 1000				
	TOTAL WITHOUT TAXES				

ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL PRICE
100	PRELIMINARY WORKS				
	SUB-TOTAL 100				-
200	EARTHWORKS				
	SUB-TOTAL 200				-
300	WORKS BELOW GROUND LEVEL (FOUNDATION)				
	SUB-TOTAL 300				-
400	WORKS IN ELEVATION				
	SUB-TOTAL 400				-
500	FRAMEWORK AND ROOFING				
	SUB-TOTAL 500				-
600	OPENNINGS IN WALLS				
	SUB-TOTAL 600				-
700	CONDUITING & ELECTRICAL WORKS				
	SUB-TOTAL 700				-
800	SANITARY INSTALLATION & SEWAGE DISPOSAL				
	SUB-TOTAL 800				-
900	PAINTING AND DECORATION				
	SUB-TOTAL 900				-
1000	EXTERNAL WORKS				
	SUB-TOTAL 1000				-

1100	**OTHER WORKS/ACCESSORIES**				
1101	Tiling to internal floor of building and dip on 5cm concrete screed	m2	18.02		
1102	Renew roof of dip complete with ceiling works	m2	0.00		
1103	Window and door shutters including painting	No	9.00		
	SUB-TOTAL 100				
	SUMMARY				
	REHABILITATION OF VETERINARY CLINIC				
	QUARATINE REHABILITATION				
	REHABILITATION OF DIP				
	GRAND TOTAL MEZAM EXCLUDING TAXES				

I	BILL OF QUANTITIES FOR THE CONSTRUCTION OF DIVISIONAL VETERINARY CLINICS(BOYO, MOMO, MENCHUM AND-NGOH KETUNJA)				
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL COST
100	PRELIMINARY WORKS				
101	Installation of worksite	ff	1.00		
102	Clearing of Site	M²	150.00		
	SUB-TOTAL 100				
200	EARTHWORKS				
201	Top soil removal to spoil heaps for reuse and excavation to reduced level as indicated	m2	96.39		
	SUB-TOTAL 200				
300	WORKS BELOW GROUND LEVEL (FOUNDATION)				
301	Digging of foundation trenches	m3	15.80		
302	Backfilling of foundation trenches	m3	9.80		
303	Blinding concrete 5cm	m3	1.27		
304	Masonry foundation in 20cm blocks with conc. Pc 200 kg/m3 infill	m²	25.32		
305	R.C. for footings, pillars and beams Pc 300kg/m3	m3	1.52		
306	Floor concrete Slab (8 cm thick) conc. Pc 250 kg/m3	m3	4.27		
	SUB-TOTAL 300				
400	WORKS IN ELEVATION/WALL MASONARY				
401	Blocks of 15x20x40cm including support walls to carry slab in the LAB	m2	127.56		
402	Rendering with cement mortar Pc 300kg/m3	m2	255.12		
403	R.C. for pillars, lintels, and chain beams Pc 300kg/m3 including R.C for 15cm slab in the LAB	m3	3.70		
404	Floor finish in ceramic floor tiles 300x300mm	m2	53.43		
405	Ceramic tiles of 200x300mm on toilet walls to a height of 2.1m	m²	11.47		
	SUB-TOTAL 400				
500	FRAMEWORK AND ROOFING				
501	Truss in 2/6" timber prepared and fitted in position	U	8.00		
502	Purlins	ml	113.00		
503	Plywood 4mm for internal and veranda Ceiling	m2	53.43		
504	Plain metal sheet 0.3mm for the eaves ceiling	m2	24.36		
505	Roofing sheet High rib (6m- 5/10mm)	m2	92.21		
506	Fascia board (High rib alu 0.35)	ml	38.92		
507	Ridge cap piece and valleys	ml	11.30		
	SUB-TOTAL 500				
600	OPENNINGS IN WALLS (Supply and fix)				
601	External metal door of (100x210)cm Complete	No.	1.00		
	External metal door of (90x210)cm Complete	No.	1.00		
	Four panel hard wood Door of (90 x 210)cm Complete	No.	2.00		

1100	**OTHER WORKS/ACCESSORIES**				
1101	Tiling to internal floor of building and dip on 5cm concrete screed	m2	18.02		
1102	Renew roof of dip complete with ceiling works	m2	0.00		
1103	Window and door shutters including painting	No	9.00		
	SUB-TOTAL 100				
SUMMARY					
	REHABILITATION OF VETERINARY CLINIC				
	QUARATINE REHABILITATION				
	REHABILITATION OF DIP				
GRAND TOTAL MEZAM EXCLUDING TAXES					

I	BILL OF QUANTITIES FOR THE CONSTRUCTION OF DIVISIONAL VETERINARY CLINICS(BOYO, MOMO, MENCHUM AND-NGOH KETUNJA)				
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL COST
100	PRELIMINARY WORKS				
101	Installation of worksite	ff	1.00		
102	Clearing of Site	M²	150.00		
	SUB-TOTAL 100				
200	EARTHWORKS				
201	Top soil removal to spoil heaps for reuse and excavation to reduced level as indicated	m2	96.39		
	SUB-TOTAL 200				
300	WORKS BELOW GROUND LEVEL (FOUNDATION)				
301	Digging of foundation trenches	m3	15.80		
302	Backfilling of foundation trenches	m3	9.80		
303	Blinding concrete 5cm	m3	1.27		
304	Masonry foundation in 20cm blocks with conc. Pc 200 kg/m3 infill	m²	25.32		
305	R.C. for footings, pillars and beams Pc 300kg/m3	m3	1.52		
306	Floor concrete Slab (8 cm thick) conc. Pc 250 kg/m3	m3	4.27		
	SUB-TOTAL 300				
400	WORKS IN ELEVATION/WALL MASONARY				
401	Blocks of 15x20x40cm including support walls to carry slab in the LAB	m2	127.56		
402	Rendering with cement mortar Pc 300kg/m3	m2	255.12		
403	R.C. for pillars, lintels, and chain beams Pc 300kg/m3 including R.C for 15cm slab in the LAB	m3	3.70		
404	Floor finish in ceramic floor tiles 300x300mm	m2	53.43		
405	Ceramic tiles of 200x300mm on toilet walls to a height of 2.1m	m²	11.47		
	SUB-TOTAL 400				
500	FRAMEWORK AND ROOFING				
501	Truss in 2/6" timber prepared and fitted in position	U	8.00		
502	Purlins	ml	113.00		
503	Plywood 4mm for internal and veranda Ceiling	m2	53.43		
504	Plain metal sheet 0.3mm for the eaves ceiling	m2	24.36		
505	Roofing sheet High rib (6m- 5/10mm)	m2	92.21		
506	Fascia board (High rib alu 0.35)	ml	38.92		
507	Ridge cap piece and valleys	ml	11.30		
	SUB-TOTAL 500				
600	OPENNINGS IN WALLS (Supply and fix)				
601	External metal door of (100x210)cm Complete	No.	1.00		
	External metal door of (90x210)cm Complete	No.	1.00		
	Four panel hard wood Door of (90 x 210)cm Complete	No.	2.00		

	Hard wood Door of (70 x 210) Complete	No.	1.00		
	Double gliding window in aluminum framing (140x120)cm complete including window protectors	No.	6.00		
	Double gliding window in aluminum framing(60x60)cm complete including window protectors	No.	2.00		
602	Angle bar 45 at the threshold	ml	6.10		
	SUB-TOTAL 600				
700	**CONDUITING & ELECTRICAL WORKS**				
701	Conduit pipes	roll	1.00		
702	Cables V.G.V 1.5mm2 for ceiling	roll	3.00		
703	Cables TH 2.5 mm2	roll	3.00		
704	Fluorescent lamps 4ft complete	No.	10.00		
705	Supply and install sockets	No.	1.00		
706	Supply and install two way switches	No.	14.00		
707	Supply and install one way switches	No.			
708	Supply and install 3 phase distribution board	ff	1.00		
709	Fire extincguisher	No.	1.00		
710	Supply and install fuse boxes	No.	1.00		
711	Supply and install junction boxes	ff	1.00		
712	Supply and install Smoke dictator	No.	3.00		
713	Supply and install Fire alarm	No.	1.00		
	SUB-TOTAL 700				
800	**SANITARY INSTALLATION & SEWAGE DISPOSAL**				
801	Complete sinks, wash hand basins, toilet pots	U	1.00		
802	Complete plumbing installations and fittings	U	4.00		
	SUB-TOTAL 800				
900	**PAINTING AND DECORATION**				
901	Whitewash on walls	m2	255.12		
902	Two coats of Pantex 800 on ceiling	m2	53.43		
903	Two coats of Emulsion paint on internal walls	m2	157.96		
904	Two coats of Pantex 1300 on external walls	m2	97.16		
905	Oil paint doors, windows & skirting	m2	32.25		
	SUB-TOTAL 900				
1000	**EXTERNAL WORKS/DRAINAGE AND PAVEMENT**				
1001	Gutters in RC Concrete Pc 250kg/m3	ml	45.00		
1002	Concrete Pc 250kg/m3 in Slab (8 cm thick)	m3	0.94		
1003	RC Concrete Pc 300kg/m3 for dip slab and walls	m3	0.50		
1004	Complete sewage treatment unit	U	1.00		
1005	Pavement in front of building	U	1.00		
	SUB-TOTAL 1000				
	GRAND TOTAL EXCLUDING TAXES FOR ONE CLINIC				
	TOTAL FOR 4 CLINICS				

J	BILL OF QUANTITIES FOR THE CONSTRUCTION OF A FISH FARMING CENTRE				
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL COST
100	PRELIMINARY WORKS				
101	Installation of worksite	ff	1.00		
102	Clearing of Site	m2	1000.00		
	SUB-TOTAL 100				
200	EARTHWORKS				
201	Top soil removal to spoil heaps for reuse and excavation to reduced level as indicated	m2	480.00		
	SUB-TOTAL 200				
300	WORKS BELOW GROUND LEVEL (FOUNDATION)				
301	Digging of foundation trenches	m3	88.00		
302	Backfilling with approved soil and compaction	m3	90.00		
303	Blinding concrete 5cm thick with Pc 150Kg/m³	m3	9.00		
304	Masonry foundation in 20cm blocks with conc. Pc 200 kg/m3 infill	m2	59.20		
305	R.C. for footings, pillars and beams	m3	8.90		
306	Blocks of 20x20x40cm	M2			
307	Concrete Pc 250kg/m3 in Slab (8 cm thick)	m2	237.12		
	SUB-TOTAL 300				
400	WORKS IN ELEVATION/WALL MASONRY				
401	Blocks of 15x20x40cm	m2	232.83		
402	Rendering with cement mortar Pc 300kg/m3	m2	465.66		
403	R.C. for pillars, lintels and beams Pc 300kg/m3	m3	3.03		
404	Floor finish in ceramic floor tiles 300x300mm	m2	200.00		
	SUB-TOTAL 400				
500	FRAMEWORK AND ROOFING				
501	Truss (Double) prepared and fitted	No.	12.00		
502	Purlins	m3	1.27		
503	Plywood 4mm for internal and veranda Ceiling	m2	192.00		
504	Plain metal sheet 0.3mm for the eaves ceiling	m2	40.40		
505	Roofing sheet High rib (6m- 5/10mm)	m2	266.00		
506	Fascia board (High rib alu 0.35)	ml	35.00		
507	Aluminium soffit plane sheets 70cm large 5/10mm	ml	40.39		
508	Ridge cap piece	ml	17.90		
	SUB-TOTAL 500				
600	OPENINGS IN WALLS				
601	Metal door of (90x220)cm Complete	No.	4.00		
602	Four panel Wooden door of (120 x 210)cm Complete	No.	1.00		
603	Three panel wooden door of (90 x 210)cm Complete	No.	0.00		

604	Wooden door of (80x210)cm Complete	No.	1.00		
605	Double gliding window in aluminum framing complete including window protectors	No.	8.00		
606	Angle bar 45 at the threshold	ml	8.76		
	SUB-TOTAL 600				
700	**CONDUITING & ELECTRICAL WORKS**				
701	Conduit pipes	roll	1.00		
702	Cables V.G.V 1.5mm2 for ceiling	roll	1.00		
703	Cables TH 2.5 mm2	roll	2.00		
704	Fluorescent lamps 4ft complete	No.	0.00		
705	Supply and fix 2 x 10W square mounted ceiling Led lights	No.	18.00		
706	Supply and install sockets	No.	6.00		
707	Supply and install two way switches	No.	11.00		
708	Supply and install one way switches	No.	1.00		
709	Supply and fix 2 x 35W 300mm□ mounted downlite Led lights	No.	9.00		
710	Supply and install 3 phase distribution board	ff	1.00		
711	Supply and install fuse boxes	ff	1.00		
712	Supply and install junction boxes	ff	1.00		
713	Supply and install a service panel	ff	1.00		
714	Fire extincguisher	No.	1.00		
715	Supply an install exit sign	No.	0.00		
716	Supply and install Smoke dictator	No.	10.00		
717	Supply and install Fire alarm	No.	4.00		
718	Supply and install Electronic sounder	No.	0.00		
719	Supply and install wall mounted extraction fan	No.	0.00		
720	Connection to the National Electricity Grid	U	1.00		
	SUB-TOTAL 700				
801	560×470mm LABORATORY basin complete with bottle trap , 50mmØ floor drain with sieve A.B. C, 6kg fire extinguisher and Towel rail	U	1		
802	13mm diameter PVC pressure pipe	m	3		
803	19mm diameter PVC pressure pipe	m	3		
804	25mm diameter PVC pressure pipe	m	13		
805	Sewage treatment works with valves	U	1		
806	Connection to water mains (potable water)	U	1		
807	Studies and incorporate existing flowing source	U	1		
	SUB-TOTAL 800				
900	**PAINTING AND DECORATION**				
901	Whitewash on walls	m2	465.66		
902	Two coats of Pantex 800 on ceiling	m2	200.00		
903	Two coats of Emulsion paint on internal walls	m2	274.14		

904	Two coats of Pantex 1300 on external walls	m2	191.52		
905	Oil paint doors, windows & skirting	m2	9.90		
	SUB-TOTAL 900				
1000	**EXTERNAL WORKS**				
1001	15M3 elevated (on concrete support)Storage tank	No	3.00		
1002	15M3 surface Storage tank	No	0.00		
1003	Oversite concrete Pc 200kg/m3	m3	56.03		
1004	RC Concrete Pc 350kg/m3 in ponds and channel	m3	92.10		
1005	Well construction with immersion pump and piping	No	1.00		
1006	Solar panel for 1.5HP water pump	U	1.00		
1007	Drainage gutters (40x20)cm	ml	65.00		
1008	Concreting of veranda	m2	40.00		
1009	Construction of a set of 10 concrete tanks as per plans and drawings. Internal dimensions of 5m x 3m x 1.5 m per tank.	U	Set of 10 tanks		
	SUB-TOTAL 1000				
	TOTAL FISH FARMING STATION				
TOTAL EXCLUDING TAXES FISH FARMING CENTRE(J)					

GRAND TOTAL FOR LOT 1 (A+B+C+D+E+F+G+H+I+J)	

LOT 2: CONSTRUCTION OF A 3- LINE MODERN SLAUGHTER HOUSE, 3 POULTRY FEED MILLS AND ONE FISH FEED MILL.

2.1 CONSTRUCTION AND EQUIPMENT OF A 3 LINE MODERN SLAUGHTER HOUSE

BILL OF QUANTITIES FOR THE CONSTRUCTION OF A 3 LINE MODERN SLAUGHTER HOUSE WITH CATTLE SLAUGHTER LINE, SMALL RUMINANT SLAUGHTER LINE AND POULTRY SLAUGHTER LINE.					
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**UNIT PRICE**	**TOTAL COST**
100	**PRELIMINARY WORKS**				
101	Site Installation and folding up site	ff	1.00		
102	Clearing and removal of top soil	M2	2,551.80		
	SUB-TOTAL 100				
200	**EARTH WORKS**				
201	Leveling of site and the construction of gabion retaining structure	m^2	2,250.00		
	SUB-TOTAL 200				
300	**WORKS BELOW GROUND LEVEL (FOUNDATION)**				
301	Excavation of foundation trenches(50cm wide by 80cm deep) and footings(100x100x100cm and 50x50x70cm)	m3	1,752.00		
302	Backfilling to floor level with approved soil and compaction to a thickness of 15cm	m3	91.82		
303	Backfilling to foundation trenches using selected laterite	m3	150.93		
304	Lay 5cm thick lean concrete PC 150kg/m3 in foundation trenches	M^3	16.42		
305	Supply, mix and put in place R.C. for footings, pillars and ground beams using Pc350kg/m3	M^3	46.53		
306	Erect wall in 20x20x40cm cement blocks, fill frog with concrete Pc 200kg/m3 in foundation	M^2	223.10		
307	Lay 15cm thick mass concrete floor slab in Pc 250kg/m3	M^3	110.18		
308	Supply and fit precast concrete channel block for internal drainage and treat joints water tight	ML	43.63		
	SUB-TOTAL 300				

400	**WORKS IN ELEVATION/WALL MASONRY**				
401	Supply and erect 15x20x40cm cement blocks jointed with a mortar mix of 1:3	M^2	1,137.86		
402	Reinforced concrete Pc350 kg/m3 for pillars, beams and lintels	M^3	86.00		
403	Apply plaster in two coats of 15mm 1:4 cement mortar on all walls	M^2	2,275.72		
404	Supply, mix and place 5cm thick cement mortar mix 1:1 on mass concrete floor	M^2	689.72		
405	Supply and fix Æ40mm galvanised tubes in position	ml	443.88		
	SUB-TOTAL 400				
500	**FRAMEWORK AND ROOFING**				
501	Supply and fix roof Truss in 5x15cm timber in position	M3	13.81		
502	Supply and fix 5x8cm Purlins to roof truss in position	M3	4.04		
503	Supply and fix Roofing sheet High rib (6m-5/10mm) in roof covering	m^2	878.00		
504	Supply and fixed 4mm Plywood to internal ceiling	m^2	689.72		
505	Supply and fix Auminiun soffit plane sheets of 80cm large to roof eaves	m^2	123.61		
506	Supply and fix Ridge cap to roof	ml	101.64		
507	Supply and fix Fascia board (High rib alu 0.35)	ml	156.40		
508	Supply and fix Aluminium sheets (High rib alu 0.35) for gable end	ml	54.20		
	SUB-TOTAL 500				
600	**OPENINGS IN WALLS**				
601	Supply and fit metallic doors (180x220)cm with all accessories	No	1.00		
	Supply and fit metallic main gate (120x220)cm with all accessories	No	5.00		
	Supply and fit wooden panel doors (100x220)cm with all accessories	No	7.00		
	Supply and fit wooden panel doors (90x220)cm with all accessories	No	4.00		
	Supply and fit wooden panel doors (80x220)cm with all accessories	No	1.00		
	Supply and fit wooden panel doors (70x220)cm with all accessories	No	5.00		
602	Supply and fit double gliding window in aluminum	M2			

	framing (210x130)cm complete including window protectors		49.14		
603	Supply and fit double gliding window in aluminum framing (280x130)cm complete including window protectors	M2	25.48		
604	Supply and fit double gliding window in aluminum framing (70x70)cm complete including window protectors	M2	2.45		
605	Supply and fit double gliding window in aluminum framing (100x130)cm complete including window protectors	M2	5.20		
606	Supply and fit double gliding window in aluminum framing (280x160)cm complete including window protectors	M2	13.44		
607	Supply and execute angle bar at the veranda	ml	34.25		
	SUB-TOTAL 600				
700	ELECTRICAL WORKS				
701	ELECTRICAL EQUIPMENT, ACCESSORIES AND ANCILLIARIES				
	mounted in specified location				
	Miniature circuit breaker distributions boards				
	with integral residual current device; federa; electric				
	or approved equivalent; flush wall mounted; stove				
	enamelled sheet case and cover with hinged access panel				
A	Supply and fix 100KVA, 11/0.415KV DY11, ONAN transformer ABB	Nr	1		
B	400A TP&N 4 ways Fedder Pillar (ABB make)	Nr	1		
C	11 KV Drop out fuse	Nr	1		
D	11KV Lightening Arrestor	Nr	1		
E	11KV Gang Isolator	Nr	1		
F	12-way; 160A TP&N LV M.V. Panel complete with miniature				
	circuit breakers 3NR 63A TP & N MCCB, 5NR TP & N MCCB, 3NR 25A TP & N MCCB	Nr	1		

H	100A 4ways TP&N; distributionn board complete with				
	8nr miniature circuit	Nr	1		
H	100A 6ways TP&N; distributionn board complete with				
	8nr miniature circuit	Nr	1		
J	100A SP& N ELCB	Nr	2		
K	160A TP & N mamual changeover	Nr	1		
L	160A Isolator switch	Nr	1		
M	160A copper bus-bar Isolator switch	Nr	1		
N	45A TP & N RCBO	Nr	2		
P	3-Phase energy meter	Nr	1		
Q	Supply and fix 75KVA, 415V, 50HZ, 1500rpm generating set				
	(SOUND PROOF TYPE) CAT	Nr	1		
702	**FEEDER CABLES**				
	Supply and lay the following cables in the				
	work and or in concrete complete with				
	pipes, glands and lugs				
A	4× 25mm² PVC/SWA/PVC cable	m	30		
B	4× 16mm² PVC/SWA/PVC cable	m	200		
C	4×10mm² PVC/SWA/PVC cable	m	50		
D	Earthing cable 1x 10mm2 and all accessories	m	30		
E	Allow a provision sum for 3x35mm^2 XLPE Cable to be executed complete as directed by the Engineer.	Item	sum		

F	4 x150mm2 pvc/pvc Copper Cable from Transformer to				
	Feeder Pillars	Nr	3		
703	**CONDUITING AND ACCESSORIES**				
	Supply conduit and wire the following				
	point using PVC conduits, including the knockout box, looping				
	box stop end box and necessary civil works and making good				
	after completion				
A	20mm diameter	m	1400		
B	25mm diameter	m	400		
C	100mm PVC pipe	m	60		
D	75mm PVC pipe	m	50		
E	50mm flexible PVC	m	100		
704	**WIRING**				
	Supply and wire the following points using				
	PVC cable {'NOCACO' make or equal}				
	and earth wire				
A	1x1.0mm²	m	100		
B	1x1.5mm²	m	4200		
C	1x2.5mm²	m	2800		
D	1x4mm²	m	100		
705	**LIGHTING FITTINGS**				
	Supply and install the following lighting				
	with bulbs, tubes and control gear				
A	recessed Downlighter light fitting, water/dust proof lighting				
	housing in self extingushing polycarbonate lamp TYPE 1x18W				
	compact fluorescent lamp	Nr	6		

	, relevant standard EN54-3, IR control operating distance 3m				
	complies with EN54 part 3	Nr	5		
F	Polansed relay to switch 230v equipment	Nr	1		
G	25mm diameter PVC conduit	m	250		
H	Fire resistence cable 2x1.5mm2 standard pirelli cable	m	250		
711	**TESTING AND COMMISSIONING**				
A	Testing and commissioning of the whole				
	installation	L.S.	1		
	SUB-TOTAL 700				
800	**PLUMBING AND MECHANICAL SERVICES**				
	Y25: General pipeline equipment				
-	***Equipment; supply, install and connect up pipeline equipment***				
-	***as manufactured by Twyford or approved equal with***				
-	***all necessary accessories for complete installation***				
-	-				
801	**Sanitary appliances**				
A	Water closet suit "Por S" trap complete with				
	9 litres ceramic cistern, plastic seat and cover				
	flush pipe, 13mmØ stop cock and relevant				
	accessories; TWYFORD or approved equal(TOP FLUSH)	Nr	5		
B	560×470mm wash hand basin complete with				
	bottle trap plus fixing brackets, TWYFORDS				
	or approved equal {without pedestal}	Nr	5		
C	Hard held bidet	Nr	5		
D	50mmØ floor drain	Nr	5		
E	Basins	4	Nr		
F	Water Trough	32	Nr		

G	Chrome-plated soap dispenser for fixing in the toilets with				
	concealed screws.	Nr	5		
H	Screw to wall Toilet Roll Holder in stainless steel with thief proof				
	holder. Complete with chrome plated fixing screws	Nr	5		
H					
J	Plate plain glass type toilet mirror for placement and fixing on top of				
	the lavatory basins.	Nr	5		
J	Chrome-plated soap dish for fixing in the toilets with concealed				
	screws.	Nr	5		
J	Annal Spray with flexible connector and all necessary installtion				
	and operational accessaries.	Nr	5		
802	**COLD WATER SUPPLY PVC PIPES&FITTINGS**				
A	13mmØ uPVC pressure pipe	m	60		
B	19mmØ uPVC pressure pipe	m	20		
C	25mmØ uPVC pressure pipe	m	50		
D	32mmØ uPVC pressure pipe	m	55		
E	Raiser for cold water supply	Nr	1		
F	13mmØ Elbow	Nr	15		
G	19mmØ Elbow	Nr	9		
H	19/13mmØ reducing Tee	Nr	9		
J	25/19mm reducer	Nr	9		
K	13mmØ tee	Nr	20		
L	19mmØ tee	Nr	9		
M	19mmØ stand tap	Nr	1		
N	13mmØ taphead tap	Nr	3		
P	13mmØ union connector	Nr	15		
P	19mmØ union connector	Nr	5		
Q	13mmØ Nipple	Nr	15		
S	19mmØ Gate valve	Nr	3		
T	13mmØ gate valve	Nr	5		
U	25mmØ Elbow	Nr	6		
V	25mmØ union connector	Nr	6		
W	25mmØ Gate valve	Nr	6		
W	32mmØ Gate valve	Nr	1		
Z	32mmØ Non-return valve	Nr	1		

ZZ	32mmØ water meter	Nr	1		
803	**SEWAGE PVC PIPES/FITTINGS**				
A	50mmØ PVC pipe	m	15		
B	100mmØ PVC pipe	m	77		
C	supply and fix soil water stack	Nr	1		
D	50mmØ PVC bend × 90°	Nr	5		
E	100mmØ PVC bend × 90°	Nr	20		
F	50mmØ PVC bend × 45°	Nr	20		
G	100mmØ × 45° bend	Nr	15		
H	50mmØ tee × 90°	Nr	5		
J	50mmØ access plug	Nr	4		
K	50mmØ coupling	Nr	5		
L	50/40mmØ reducer	Nr	4		
M	Tangit Gum	Nr	1		
N	Construct manhole 600x600mm	Nr	25		
804	**AIR-CONDITONING & VENTILATION SYSTEM**				
-	***Equipment; CARRIER or other approved equal wall mounted air conditioner complete with insulated interconnecting refridgerant line, condensation pipe and electrical connection.***	-	-		
A	3.6HP or 24000 Btu/hr Split Unit Air conditioners complete with				
	door blower unit and outdoor condensing unit, over and under				
	voltage protection, refrigerant, condensate pipe network, and all				
	necessary and required installation and operational accessories.				
	(LG or Panasonic)	Nr	5		
B	Allow for 25mm dia upvc drain pipes including elbows, sockets				
	and fittings	m	30		
C	Allow for 75mm dia upvc pipes for refrigerant pipes including				
	elbows, sockets and fittings	m	26		
E	Allow for testing and commissioning	Item	sum		
805	**STORM WATER DRAINAGE**				
A	100mmØPVC pipe	m	20		

806	**WATER SUPPLY**				
	BOREHOLE				
A	Allow for construction of Borehole complete with geophysical				
	survey, submersible,100mm diameter casing, 100mm uPVC				
	uPVC pressure pipe, reticulation, cement grouting, flushing,				
	testing and all necessary details	Nr	1		
B	**ELEVATED WATER STORAGE TANKS AND PUMPS**				
	Geepee plastic 0verhead water storage tank (SHAKT) tank				
	mounted vertically on 10m high steel stanchion to structural details,				
	size: 1700x1700x1900mm deep. Capacity 5000litre complete				
	with flow switches and overflow	Nr	1		
	GROUND TANK				
B	Geepee plastic water storage tank (SUPREME) tank				
	mounted vertically on 600mm high reinforced base foundation to				
	structural details, size 2100x2100x3200mm high with				
	capacity: 10,000litre complete	Nr	1		
C	BOOSTER PUMPS,				
	BOOSTER PUMPS 1.5hp Electric pump, @ head of 19.6m 1-duty 1 stand-by				
	GROUNDFOS pumps, flow 1.30litre per second,electrical motor	Nr			
	rating 0.75kw with current 1.4A		2		
807	**TESTING**				
A	Testing and commissioning	item	sum		
	SUB-TOTAL 800				
900	**PAINTING AND DECORATION**				
901	Supply and apply quick lime undercoat to all internal and external walls	M^2	2,275.72		
902	Supply and apply 2 coats of Pantex 800 on the ceiling	M^2	689.72		
903	Supply and apply 2 coats of Pantex 1300 to all internal and external walls	M^2	2,275.72		

904	Supply and lay mosaic tiles on all toilet floors and veranda	M^2	57.05		
905	Supply and lay 200x300mm ceramic tiles on toilet walls (H=1.8m)	M^2	38.16		
906	Provide and lay 300x300mm ceramic tiles on all floors	M^2	-		
	SUB TOTAL 900				
1000	**EXTERNAL WORKS/DRAINAGE AND PAVEMENT**				
1001	Creation and concreting of 40x40cm mass concrete gutters with Pc 300 kg/m3 round the building	ml	167.00		
1002	Creation and concreting of 40x75cm mass concrete gutters with Pc300kg/m3 for conveyance of blood into the blood collection chambers	ml	74.35		
1003	Concreting of the external perimeter, 1m wide of the building (pavement) using Pc 250kg/m3	m3	98.89		
1004	Construction of a mass concrete Blood collection chamber of 80cm depth by 100cm wide by 100cm length with a lead out valve	U	2.00		
1005	Improvement of access (2x dia.1.0m culvert rings, soil fill and compaction) including pavement of entrance and runway within.	ml	130.00		
1006	Permanent fencing with gates in composite materials as per drawing	ml	400.00		
1007	Drive way and parking pavement in concrete Pc 350kg/m3 well consolidated	m3	509.92		
1008	Embankment retaining wall in stone masonry flush pointed, including concrete pillars in Pc300kg/m3 at 5m interval and a 300mm beam midway and at the top	m3	250.00		
1009	PROVISION FOR WATER SUPPLY WITH A 10m3 ELEVATED CONCRETE STORAGE TANK IN Pc 350kg/m3	U	1.00		
	SUB-TOTAL 1000				
1100	**OTHER ACCESSORIES**				
1101	10m3 elevated (on concrete support)Storage tank	U	1.00		
1102	30M3 Biogass plant	U	1.00		
	SUB-TOTAL 1100				
1200	**EQUIPMENT SPECIFICATIONB & CHARACTERISTICS**				
1201	Acquisition of slaughter house (abattoir) equipment for three operational lines including all accessories. Shipment, transportation and installation for operation as per Specifications.	LS	1.00		
	GRAND TOTAL FOR MODERN SLAUGHTER HOUSE				

2.2 CONSTRUCTION AND EQUIPMENT OF 3 POULTRY FEED MILLS

BILL OF QUANTITIES FOR THE CONSTRUCTION AND EQUIPMENT OF POULTRY FEED MILL					
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL COST
100	PRELIMINARY WORKS				
101	Site clearing, leveling and Setting out	M^2	218.96		
	SUB-TOTAL 100				
200	EARTH WORKS				
201	Top soil removal to spoil heaps for reuse and excavation to reduced level as indicated	M2	-		
	SUB-TOTAL 200				-
300	WORKS BELOW GROUND LEVEL (FOUNDATION)				
301	Excavation of foundation trenches	M^3	37.82		
302	Back filling and compaction	M^3	21.94		
303	Lean concrete dosed at 150kg/m3	M^2	3.75		
304	Reinforced Concrete dosed at 350kg/m3 for pillar, footings, ground beam and ring beams	M^3	8.90		
305	Foundation built in concrete blocks	M^3	48.12		
	SUB-TOTAL 300				
400	WORKS IN ELEVATION/WALL MASONRY				
401	Erection of walls with 20x20x40cm sand creed blocks	M2	199.12		
402	Reinforced Concrete dosed at 350kg/m3 for columns, lintels, ring beams and ramps	M^3	14.05		
403	Plastering and rendering of walls internally and externally with 2 coats of 15mm cement mortar dosed 400kg/m3	M^2	398.24		
404	10cm oversite concrete dosed at 350kg/m3 on office, store and toilet floors	M^3	6.40		

405	10cm oversite concrete dosed at 350kg/m3 reinforced with XPM in the milling hall and entrance and exit porch floors	M^3	16.30		
	SUB-TOTAL 400				
500	**FRAMEWORK AND ROOFING**				
501	Construction of roof truss in treated hard wood of section 5x15cm with purlins fixed to truss	ff	1.00		
502	Apply insecticide (carbonyl) to roofing timber	ff	1.00		
503	Roofing with tole bac 6/10 and accessories	M^2	310.00		
504	Fix aluminum top and corner ridging pieces	U	30.00		
505	Fix aluminum gutter pieces	U	9.00		
506	Fix aluminum fascia board [tole bac + lining, ht= 30cm]	U	40.00		
507	Construct noggins (5x7.5)cm to receive ceiling boards	M^3	0.31		
508	Fix 4mm ceiling boards (red on both sides) to noggins	U	35.00		
509	Provide zinc nails and felts in packets	U	8		
	SUB-TOTAL 500				
600	**OPENNINGS IN WALLS**				
601	Complete metallic main gate 284x240cm with all accessories	U	2.00		
602	Double gliding window in aluminum framing (120x120)cm complete including window protectors	U	4.00		
603	Fit complete hard wood panel doors {90x 210}cm	U	4.00		
604	Double gliding window in aluminum framing(60x75)cm complete including window protectors	U	4.00		
605	Fit complete hard wood batten doors {80x210}cm	U	2.00		
606	Fit complete hard wood batten doors {70x210}cm	U	2.00		
607	Fit protective metallic frame work on walls of milling hall	M^2	40.86		
	SUB-TOTAL 600				
700	**CONDUITING AND ELECTRICAL WORKS**				
701	**ELECTRICAL EQUIPMENT, ACCESSORIES AND ANCILLIARIES**				

	mounted in specified location				
	Miniature circuit breaker distributions boards				
	with integral residual current device; federa; electric				
	or approved equivalent; flush wall mounted; stove				
	enamelled sheet case and cover with hinged access				
	panel				
A	10-way; 160A TP&N LV M.V. Panel complete with miniature				
	circuit breakers 1NR TP & N MCCB, 10NR 63A TP & N MCCB and INR 45A TP & N MCCB	Nr	1		
B	100A 6ways TP&N; distributionn board complete with				
	8nr miniature circuit	Nr	1		
C	100A TP&N; ELCB complete	Nr	1		
D	160A TP & N mamual changeover	Nr	1		
E	160A Isolator switch	Nr	1		
F	160A copper bus-bar Isolator switch	Nr	1		
G	45A TP & N RCBO	Nr	1		
H	3-Phase energy meter	Nr	1		
702	**FEEDER CABLES**				
	Supply and lay the following cables in the				
	work and or in concrete complete with				

	pipes, glands and lugs				
A	4× 50mm² PVC/SWA/PVC cable	m	30		
B	4× 16mm² PVC/SWA/PVC cable	m	40		
C	4× 10mm² PVC/SWA/PVC cable	m	40		
D	1× 6mm² PVC/SWA/PVC earth cable	m	40		
E	Earthing cable 1x 10mm2	m	30		
703	**CONDUITING AND ACCESSORIES**				
	Supply conduit and wire the following				
	point using PVC conduits, including the knockout box, looping				
	box stop end box and necessary civil works and making good				
	after completion				
	-				
A	20mm diameter	m	500		
B	25mm diameter	m	100		
C	100mm PVC pipe	m	10		
D	75mm PVC pipe	m	20		
E	50mm flexible PVC	m	10		
704	**WIRING**				
	Supply and wire the following points using				
	PVC cable {'NOCACO' make or equal}				
	and earth wire				

	-				
A	1x1.0mm²	m	200		
	-				
B	1x1.5mm²	m	1200		
C	1x2.5mm²	m	840		
D	1x4mm²	m	25		
705	LIGHTING FITTINGS				
	Supply and install the following lighting				
	with bulbs, tubes and control gear				
	-				
A	recessed Downlighter light fitting, water/dust proof lighting				
	housing in self extingushing polycarbonate lamp TYPE 1x18W				
	compact fluorescent lamp	Nr	6		
B	Compact mount double flourescent fitting with opal diffuser lamp				
	type 2x18w TLD fluorescent fitting	Nr	4		
C	96241058 voyager E led exit sign box economical self-contained				
	wall mounted 3 hour maintained led emengency exit sign IP20				
	rated luminaire body white steel panel polycarbonate (PC)				
	arrow down 150 included for escape route signal application	Nr	12		
D	96232343 painter 1x28w TC-DEL HF E DP blk L840A square				
	black bulkhead luminaire with emengency lighting function				
	for 1x28w TC -doel lamp combined HF and EM SC circuit self				
	contained luminaire manual test13hrs	Nr	13		
E	96260489 MCE 32x36w T26 HF L840 sealed IP54 fluorescent				

	luminaire for designed such as vibrations oils or fumes 2x36w				
	T26 lamps with electronic dimable analogue circuit in industrial				
	premises for general task illumination of areas with harsh				
	environmental conditions	Nr	15		
F	96535816 college 2x36w HF PC L840 high performance IP44				
	surface mounted fluorescent luminaire for 2x36w t26 lamps				
	with electronic -fixed output circuit body in white painted steel				
	end cap in white polycarbonate IPC with a curved precision				
	extruded clear prismatic polycarbonate PC diffuser	Nr	8		
G	96229335 Voyager Exel 1x8w T16 E3NM WHI MSR.Self contained ceiling recessed flourescent emergency bulkhead IP65 weather proof with polycarbonate body	Nr	7		
706	LIGHT SWITCHES AND SWITCHED				
	SOCKETS POINTS				
	Supply and install the following flush				
	switches and switched socket pts. Tenby				
A	5A one way one gang switch	Nr	4		
B	5A two way one gang switch	Nr	6		
C	5A two way three gang switch	Nr	2		
D	13A 1 gang single pole white switched socket outlet	Nr	3		
E	13A 2 gang double pole white switched socket outlet	Nr	9		
F	20A 1 gang DP switch with neon marked, air-conditioning white				
	range	Nr	2		

707	FANS				
A	Supply and install 1400mm diameter				
	regulator Newclime type or approoved	Nr	6		
B	Supply and install GX6 xpelair wall mounted extractor fan	Nr	3		
C	Supply and install GX12 xpelair wall mounted extractor fan	Nr	3		
708	LIGHTING PROTECTION				
	EARTHING				
A	3x25mm² bare copper conductivity copper tape	m	150		
B	Copper earth rod, 1.2m long with clamps				
	{earthing}	Nr	1		
C	600 × 600mm² by 3mm thick and 25mm				
	wide copper earth mat	Nr	2		
D	Earthing terminal consisting of 2.4m				
	earth rods made up of two section each				
	1.2m to be driven into the ground	Nr	1		
E	Multiple points copper terminal to be				
	mounted on and including elevation rod	Nr	1		
F	Accessories {clips, clamps etc}	item	sum		
709	TELEPHONES, TV / SATELLITE POINTS				
	Supply and make provision for telephone				
	cord pts. Using 25mm PVC conduit,and				

	draw wire.				
A	Telephone cord outlet	Nr	4		
B	Suply and install telephone terminal box				
	150 × 100 ×100mm} telephone terminal box	Nr	1		
C	Supply and install TV/Satelite co-axial 2				
	gang sockets	Nr	4		
D	Data outlet	Nr	4		
710	FIRE ALARM SYSTEM				
	Supply and install the following materials				
	for the fire alarm system . All to be				
	"GENT" type or equal				
	-				
A	Two zone fire alarm indicator panel, load per zone 3mA, 2nr				
	sounder .5A per circuit with 2x12v,2.1Ah, batery standny				
	72hrs plus 0.5hrs alarm load withralay contact 1N/0 and 1 N/C				
	pair, 1A at 24v, total weight 5.8kg, standard EN 54 parts 2 & 4				
	cable entry 13 top and 13 rear, cable type BS 6387, 2core,				
	min 1.5min pirrelle CSA, class charge facility via normal open				
	push button switch located not more than 100m from panel and				
	operating temperature indoor 0-40 degree	Nr	1		
B	Manual call point, nominal voltage 24v dc. Ingress protection				
	IP 43 (55 with cover), approximate weight 0.11kg, operating				

	temperature -20 degree +70degree, relevant standards EN 54-11				
	LPCB approved, alarm current 30mA maximum and colour				
	red(similar to RAL 3020)	Nr	5		
C	Smoke detector, nominal voltage 9-28v dc. Quienscent current				
	60up, ingress protection IP30.approximate weight 0.11kg				
	operating temperature -10degree to +50degree, relevant standard				
	EN 54-7, LPCB approval	Nr	6		
D	Heat detector, nominal voltage 28v dc. Quienscent current				
	30up, ingress protection IP30.approximate weight 0.07kg				
	operating temperature -10degree to +50degree, relevant standard				
	EN 54 part5 LPCB approval, temperature 58degree and				
	sentivivity grade 1	Nr	4		
E	Sounder and strobes, output 8" solenoid bell 12v 105dB (A)				
	at 1m with strobe 14.2mA without strobe 4.5mA, 24v 105.5dB				
	(A) at 1m with strobes 12mA(without strobes 4.5mA,strobe				
	output equivalent to a 3wxenon strobe, average current 6mA				
	at 24v, operating voltage range 10.8-28.8v, sound and				
	synchronisation better than +30mS over 20 minutes with all				

	units powered from the same circuit, ingress protection IP55C				
	with the deep base IP31C with the shallow base, approximate				
	weight 0.3kg, 0perating temperature -10degree to +50degree				
	, relevant standard EN54-3, IR control operating distance 3m				
	complies with EN54 part 3	Nr	5		
F	Polansed relay to switch 230v equipment	Nr	1		
G	25mm diameter PVC conduit	m	60		
H	Fire resistence cable 2x1.5mm2 standard pirelli cable	m	60		
711	TESTING AND COMMISSIONING				
A	Testing and commissioning of the whole				
	installation	L.S.	1		
	SUB-TOTAL 700				
800	**SANITARY INSTALLATION & SEWAGE DISPOSAL**				
	PLUMBING AND MECHANICAL SERVICES				
	-				
	Y25: General pipeline equipment				
-	***Equipment; supply, install and connect up pipeline equipment***				
-	***as manufactured by Twyford or approved equal with***				
-	***all necessary accessories for complete I nstallation***				
-	-				

801	**Sanitary appliances**				
A	Water closet suit "Por S" trap complete with				
	9 litres ceramic cistern, plastic seat and cover				
	flush pipe, 13mmØ stop cock and relevant				
	accessories; TWYFORD or approved equal	Nr	2		
B	560×470mm wash hand basin complete with				
	bottle trap plus fixing brackets, TWYFORDS				
	or approved equal {without pedestal}	Nr	2		
C	Hard held bidet	Nr	1		
D	Urinal	Nr	1		
E	50mmØ floor drain	Nr	2		
	Chrome-plated soap dispenser for fixing in the toilets with				
F	concealed screws.	Nr	2		
	Screw to wall Toilet Roll Holder in stainless steel with thief proof				
G	holder. Complete with chrome plated fixing screws	Nr	2		
	Plate plain glass type toilet mirror for placement and fixing on top of				
H	the lavatory basins.	Nr	2		
	Chrome-plated soap dish for fixing in the toilets with concealed				
J	screws.	Nr	2		
K	Annal Spray with flexible connector and all necessary installtion				

	and operational accessaries.	Nr	2		
802	**COLD WATER SUPPLY PVC PIPES&FITTINGS**				
A	13mmØ uPVC pressure pipe	m	20		
B	19mmØ uPVC pressure pipe	m	15		
C	25mmØ uPVC pressure pipe	m	25		
D	32mmØ uPVC pressure pipe	m	25		
E	Raiser for cold water supply	Nr	1		
F	13mmØ Elbow	Nr	20		
G	19mmØ Elbow	Nr	10		
H	19/13mmØ reducing Tee	Nr	10		
J	25/19mm reducer	Nr	5		
K	13mmØ tee	Nr	10		
L	19mmØ tee	Nr	5		
M	19mmØ stand tap	Nr	1		
N	13mmØ taphead tap	Nr	2		
P	13mmØ union connector	Nr	10		
P	19mmØ union connector	Nr	5		
Q	13mmØ Nipple	Nr	10		
S	19mmØ Gate valve	Nr	4		
T	13mmØ gate valve	Nr	5		
U	25mmØ Elbow	Nr	5		
V	25mmØ union connector	Nr	5		
W	25mmØ Gate valve	Nr	1		
W	32mmØ Gate valve	Nr	1		
Z	32mmØ Non-return valve	Nr	1		
ZZ	32mmØ water meter	Nr	1		
803	**SEWAGE PVC PIPES/FITTINGS**				
A	50mmØ PVC pipe	m	20		
B	100mmØ PVC pipe	m	25		
C	supply and fix soil water stack	Nr	1		

D	50mmØ PVC bend × 90°	Nr	3		
E	100mmØ PVC bend × 90°	Nr	3		
F	50mmØ PVC bend × 45°	Nr	3		
G	100mmØ × 45° bend	Nr	3		
H	50mmØ tee × 90°	Nr	3		
J	50mmØ access plug	Nr	2		
K	50mmØ coupling	Nr	5		
L	50/40mmØ reducer	Nr	4		
M	Tangit Gum	Nr	1		
N	Construct manhole	Nr	2		
804	**Portable Fire Extinguishers**				
M	ABC Dry Chemical Powder fire extinguishers of 9kg capacity				
	filled with Mono-ammonium phosphate and Ammonium soleplate; with				
	a discharge time of 15 secs and range of 7m, complete with				
	indicator discharge hose and wall hook cylinder. Finish - BLUE;				
	Make - AMEREX or equal.	Nr	2		
N	Gas/carbon dioxide fire extinguisher of 5kg capacity for BC and				
	Electrical fires; with a discharge range of 7m, complete with				
	pressure indicator and discharge hose.	Nr	2		
P	Gas/carbon dioxide fire extinguisher of 45kg capacity for BC and				
	Electrical fires; on trolley with a discharge range of 30m,				
	complete with pressure indicator and discharge hose.	Nr	2		

805	**AIR-CONDITONING & VENTILATION SYSTEM**				
-	***Equipment; CARRIER or other approved equal wall mounted air conditioner complete with insulated interconnecting refridgerant line, condensation pipe and electrical connection.***	-	-		
A	12000 Btu/hr Split Unit Airconditioners complete with indoor				
	blower unit and outdoor condesing unit, over and under voltage				
	protection, refridgerant, condesate pipe network, and all				
	necessary and required installation and operational accessories.				
	(LG or Panasonic)	Nr	2		
B	Allow for 25mm dia upvc drain pipes including elbows, sockets				
	and fittings	m	15		
C	Allow for 75mm dia upvc pipes for refrgderant pipes including				
	elbows, sockets and fittings	m	15		
D	Allow for testing and commissioning	Item	sum		
806	**STORM WATER DRAINAGE**				
A	100mmØPVC pipe	m	20		
807	**WATER SUPPLY**				
	BOREHOLE				
A	Allow for construction of Borehole complete with geophysical				
	survey, submersible,100mm diameter casing, 100mm uPVC				
	uPVC pressure pipe, reticulation, cement grouting, flushing,				
	testing and all necessary details	Nr	1		

B	**ELEVATED WATER STORAGE TANKS AND PUMPS**				
	Geepee plastic 0verhead water storage tank (SHAKT) tank				
	mounted vertically on 10m high steel stanchion to structural details,				
	size: 1700x1700x1900mm deep. Capacity 5000litre complete				
	with flow switches and overflow	Nr	1		
	GROUND TANK				
B	Geepee plastic water storage tank (SUPREME) tank				
	mounted vertically on 600mm high reinforced base foundation to				
	structural details, size 2100x2100x3200mm high with				
	capacity: 10,000litre complete	Nr	1		
C	BOOSTER PUMPS,				
	BOOSTER PUMPS 1.5hp Electric pump, @ head of 19.6m 1-duty 1 stand-by				
	GROUNDFOS pumps, flow 1.30litre per second,electrical motor	Nr			
	rating 0.75kw with current 1.4A		2		
808	Construct and connect I.Cs and soak away pit as necessary	ff			
809	Construct and fit septic tank with all accessories	ff			
810	**TESTING**				
A	Testing and commissioning	item	sum		
	SUB-TOTAL 800				
900	**PAINTING AND DECORATION**				
901	Provide and apply quick lime undercoat to all internal and external walls	M^2	398.24		

902	Provide and execute 2 coats of Pantex 800 on the office, store and toilet ceilings	M^2	64.00		
903	Provide and execute 2 coats of Pantex 1300 to all internal and external walls	M^2	398.24		
904	Provide and lay mosaic tiles on all toilet floors	M^2	11.00		
905	Provide and lay 200x300mm ceramic tiles on toilet walls (H=1.8m)	M^2	36.72		
906	Provide and lay 300x300mm ceramic tiles on Remaining floors	M^2	209.93		
	SUB-TOTAL 900				
1000	**EXTERNAL WORKS**				
1001	Drainage gutter in concrete around building	Ml	53.56		
1002	Add for fencing(25x35)m and recreation facility and security gate	ML	197.60		
	SUB-TOTAL 1000				
	SUMMARY BUILDING TOTAL				
1100	**OTHER WORKS/ACCESSORIES**				
1101	Improvement of access, Drive way and parking in concrete Pc 350kg/m3 pavement well consolidated	m3	72.75		
1102	STUDIES AND CONSRUCTION OF A WELL , AN OVERHEAD TANK, A PUMP AND A SOLAR PANEL	U	1		
	SUB-TOTAL 1100				
1200	**EQUIPMENT SPECIFICATION AND CHARACTERISTICS**				
1003	Acquisition of poultry feed mill equipment, shipment, transportation and installation for operation as per specifications.	U	1		
	SUB-TOTAL 1200				
	GRAND TOTAL FOR 1 FEED MILL				
	GRAND TOTAL FOR 3 FEED MILLS				

2.3 CONSTRUCTION AND EQUIPMENT OF A FISH FEED MILL

BILL OF QUANTITIES FOR THE CONSTRUCTION AND EQUIPMENT OF FISH FEED MILL					
ITEM	DESCRIPTION	UNIT	QTY	U.P. (fcfa)	T.P (fcfa)
100	PRELIMINARY WORKS				
101	Installation of worksite	ff	1.00		
102	Clearing of Site	m2	1400.00		
	SUB-TOTAL 100				
200	EARTHWORKS				
201	Top soil removal to spoil heaps for reuse and excavation to reduced level as indicated	m2	193.80		
	SUB-TOTAL 200				
300	WORKS BELOW GROUND LEVEL (FOUNDATION)				
301	Digging of trenches footings(110x130)cm	m3	70.79		
302	Digging of foundation trenches	m3	47.10		
303	Backfilling	m3	67.00		
304	Blinding concrete 5cm dosed at 150kg/cm3	m3	3.88		
305	Masonry foundation in 20cm blocks with conc. Pc 200 kg/m3 infill	m2	77.50		
306	R.C. for footings, pillars and beams at 350kg/m3	m3	27.30		
307	Concrete Pc 250kg/m3 in Slab (8 cm thick)	m3	48.01		
	SUB-TOTAL 300				
400	WORKS IN ELEVATION/WALL MASONRY				
401	Blocks of 15x20x40 cm	m2	470.00		
402	Rendering with cement mortar Pc 300kg/m3	m2	940.00		
403	R.C. for pillars, lintels, and beams, stair, decking and chain beam at 350kg/cm3	m3	27.58		
404	Decking with hollow blocks	m2	0.00		
405	Floor finish in cement screed	m2	244.58		
406	Floor finish in ceramic floor tiles 300x300mm to cloakroom	m2	13.42		
	SUB-TOTAL 400				
500	FRAMEWORK AND ROOFING				
501	Truss (Double)	m3	9.77		
502	Purlins	m3	5.63		
503	Plywood 4mm for internal and veranda Ceiling	m2	140.00		
504	Plain metal sheet 0.3mm for the eaves ceiling	m2	198.55		
505	Roofing sheet High rib (6m- 5/10mm)	m2	596.56		
506	Fascia board (High rib alu 0.35)	ml	81.20		
507	Ridge cap piece	ml	40.00		

	SUB-TOTAL 500				
600	**OPENNINGS IN WALLS**				
601	Metal door of (195x280)cm Complete	No.	4.00		
602	Metal door of (195x280)cm Complete	No.	1.00		
603	Four panel wooden door of (100 x 210)cm Complete	No.	7.00		
604	Wooden door of (80x210)cm Complete	No.	5.00		
605	Wooden door of (70x210)cm Complete	No.	4.00		
606	Double gliding window in aluminum framing(150x110)cm complete including window protectors	No.	12.00		
607	Double gliding window in aluminum framing (120x110)cm complete including window protectors	No.	4.00		
608	Double gliding window in aluminum framing(60x60)cm complete including window protectors	No.	5.00		
609	Railing(aluminum tube 51mm and 25mm)	ml	38.00		
610	Angle bar 45 at the threshold	ml	22.20		
	SUB-TOTAL 600				
700	**CONDUITING AND ELECTRICAL WORKS**				
701	**ELECTRICAL EQUIPMENT, ACCESSORIES AND ANCILLIARIES**				
	mounted in specified location				
	Miniature circuit breaker distributions boards				
	with integral residual current device; federa; electric				
	or approved equivalent; flush wall mounted; stove				
	enamelled sheet case and cover with hinged access panel				
A	Supply and fix 200KVA, 11/0.415KV DY11, ONAN transformer ABB	Nr	1		
B	500A TP&N 4 ways Fedder Pillar (ABB make)	Nr	1		
C	11 KV Drop out fuse	Nr	1		
D	11KV Lightening Arrestor	Nr	1		
E	11KV Gang Isolator	Nr	1		
F	6-way; 300A TP&N LV M.V. Panel complete				

	with miniature				
	circuit breakers, 2NR 160A TP & N TP& N MCCB, 2NR 63A TP &N MCCB, 1NR 45A TP & N MCCB AND 1NR 32A TP & N MCCB	Nr	1		
G	10way 160A TP&N sub- LV M.V. Panel. complete with miniature				
	circuit breakers 160A TP & N MCCB, 11NR TP & N MCCB	Nr	1		
H	100A 6ways TP&N; MCB distributionn board complete with				
	8nr miniature circuit	Nr	1		
J	100A 6ways SP& N consumer unit	Nr	1		
K	100A TP&N; ELCB complete	Nr	1		
L	300A TP & N mamual changeover	Nr	1		
M	300A Isolator switch	Nr	1		
N	300A copper bus-bar Isolator switch	Nr	1		
P	25A TP & N RCBO	Nr	1		
Q	3-Phase energy meter	Nr	1		
R	Supply and fix 65KVA, 415V, 50HZ, 1500rpm generating set				
	(SOUND PROOF TYPE) CAT	Nr	1		
702	**FEEDER CABLES**				
	Supply and lay the following cables in the				
	work and or in concrete complete with				
	pipes, glands and lugs				

A	4× 120mm² PVC/SWA/PVC cable	m	20		
B	4× 50mm² PVC/SWA/PVC cable	m	25		
C	4× 16mm² PVC/SWA/PVC cable	m	80		
D	2×6mm² PVC/SWA/PVC cable	m	20		
E	1×6mm² PVC/S/C copper cable for earth	m	50		
F	Earthing cable 1x 10mm2 and all accessories	m	15		
G	Earthing cable 1x 35mm2 and all accessories	m	15		
H	Allow a provision sum for 3x35mm^2 XLPE Cable to be executed complete as directed by the Engineer.	Item	sum		
J	4 x150mm2 pvc/pvc Copper Cable from Transformer to				
	Feeder Pillars	Nr	3		
703	**CONDUITING AND ACCESSORIES**				
	Supply conduit and wire the following				
	point using PVC conduits, including the knockout box, looping				
	box stop end box and necessary civil works and making good				
	after completion				
A	20mm diameter	m	1500		
B	25mm diameter	m	500		
C	100mm PVC pipe	m	80		
D	75mm PVC pipe	m	60		
E	50mm flexible PVC	m	100		
704	**WIRING**				
	Supply and wire the following points using				
	PVC cable {'NOCACO' make or equal} and earth wire				

A	1x1.0mm²	m	100		
B	1x1.5mm²	m	4000		
C	1x2.5mm²	m	2600		
D	1x4mm²	m	100		
E	1.5x3core flexible cable	m	100		
705	**LIGHTING FITTINGS**				
	Supply and install the following lighting				
	with bulbs, tubes and control gear				
A	recessed Downlighter light fitting, water/dust proof lighting				
	housing in self-extinguishing polycarbonate lamp TYPE 1x18W -				
	compact fluorescent lamp	Nr	3		
B	Ceiling luminaire of satin matt three-ply opal glass screw lock				
	and white die cast aluminium fitter for 2x18W TC -D compact				
	fluorescent lamp	Nr	17		
C	96108358 baselled junior 100 H 11 18w LED L930 230w				
	a ceiling recessed 115w LED downlight with compact optic				
	featuring cree true white tecnology with 600lm light output				
	at CRI 92 body in die cast aluminium fits 100mm diameter				
	cut-out in ceiling 1-20mm thick	Nr	3		
D	Compact mount double fluorescent fitting with opal diffuser lamp				
	type 2x18w TLD fluorescent fitting	Nr	6		
E	96240370 menlo3c LED 3700 HFIWL6 E3 AC597A recessed/				
	surface mounted LED luminaire with 3700LM LED package				
	and unique floating circular diffuser electronic				

	manual test				
	LED emergency lighting circuit body white painted steel	Nr	8		
F	96241058 voyager E led exit sign box economical self-contained				
	wall mounted 3 hour maintained led emergency exit sign IP20				
	rated luminaire body white steel panel polycarbonate (PC)				
	arrow down 150 included for escape route signal application	Nr	35		
G	96232343 painter 1x28w TC-DEL HF E DP blk L840A square				
	black bulkhead luminaire with emergency lighting function				
	for 1x28w TC -doel lamp.combined HF and EM SC circuit self				
	contained luminaire manual test13hrs	Nr	26		
H	96260489 MCE 32x36w T26 HF L840 sealed IP54 fluorescent				
	luminaire for designed such as vibrations oils or fumes 2x36w				
	T26 lamps with electronic dimable analogue circuit in industrial				
	premises for general task illumination of areas with harsh				
	environmental conditions	Nr	25		
	Pendant luminaire for 1x70w hit lamp with magnetic circuit				
J	housing in die-cast aluminium with satin grey finish class				
	electrical ingress protection IP20 complete with opal glass				
	reflector with quick and easy bayonet mount connection to				
	housing mounted vie adustable quick lock 25m single wire				
	suspension.	Nr	24		

K	96229335 Voyager Exel 1x8w T16 E3NM WHI MSR.Self contained ceiling recessed flourescent emergency bulkhead IP65 weather proof with polycarbonate body	Nr	30		
706	**LIGHT SWITCHES AND SWITCHED SOCKETS POINTS**				
	Supply and install the following flush				
	switches and switched socket pts. Tenby				
A	5A one way one gang switch	Nr	10		
B	5A two way one gang switch	Nr	14		
C	5A two way two gang switch	Nr	3		
D	13A 1 gang single pole white switched socket outlet	Nr	6		
E	13A 2 gang double pole white switched socket outlet	Nr	14		
F	20A 1 gang DP switch with neon marked air-conditioning white				
	range	Nr	3		
G	20A 1 gang DP switch with flex outlet knockout box for hand dryer white				
	range	Nr	3		
H	20A perimeter lighting control photocell switch	Nr	3		
707	**FANS**				
A	Supply and install 1400mm diameter				
	regulator Newclime type or approoved	Nr	6		
B	Supply and install GX12 xpelair wall mounted extractor fan	Nr	8		
708	**LIGHTING PROTECTION**				
	EARTHING				
A	3x25mm² bare copper conductivity copper tape	m	120		
B	Copper earth rod, 1.2m long with clamps				

	{earthing}	Nr	1		
C	600 × 600mm² by 3mm thick and 25mm				
	wide copper earth mat	Nr	2		
D	Earthing terminal consisting of 2.4m				
	earth rods made up of two section each				
	1.2m to be driven into the ground	Nr	2		
E	Multiple points copper terminal to be				
	mounted on and including elevation rod	Nr	1		
F	Accessories {clips, clamps etc}	item	sum		
709	**TELEPHONES, TV / SATELLITE POINTS**				
	Supply and make provision for telephone				
	cord pts. Using 25mm PVC conduit,and				
	draw wire.				
A	Telephone cord outlet	Nr	3		
B	Suply and install telephone terminal box				
	150 × 100 ×100mm} telephone terminal box	Nr	1		
C	Supply and install TV/Satelite co-axial 2				
	gang sockets	Nr	4		
D	Voive and data socket outlet	Nr	3		
D	Data outlet	Nr	3		
710	**FIRE ALARM SYSTEM**				
	Supply and install the following materials				
	for the fire alarm system . All to be				
	"GENT" type or equal				
A	Two zone fire alarm indicator panel, load per zone 3mA, 2nr				
	sounder .5A per circuit with 2x12v,2.1Ah, batery standny				
	72hrs plus 0.5hrs alarm load withralay contact 1N/0 and 1 N/C				
	pair, 1A at 24v, total weight 5.8kg, standard EN 54 parts 2 & 4				
	cable entry 13 top and 13 rear, cable type BS 6387, 2core,				

	min 1.5min pirrelle CSA, class charge facility via normal open				
	push button switch located not more than 100m from panel and				
	operating temperature indoor 0-40 degree	Nr	1		
B	Manual call point, nominal voltage 24v dc. Ingress protection				
	IP 43 (55 with cover), approximate weight 0.11kg, operating				
	temperature -20 degree +70degree, relevant standards EN 54-11				
	LPCB approved, alarm current 30mA maximum and colour				
	red(similar to RAL 3020)	Nr	13		
C	Smoke detector, nominal voltage 9-28v dc. Quienscent current				
	60up, ingress protection IP30.approximate weight 0.11kg				
	operating temperature -10degree to +50degree, relevant standard				
	EN 54-7, LPCB approval	Nr	13		
D	Heat detector, nominal voltage 28v dc. Quiescent current				
	30up, ingress protection IP30.approximate weight 0.07kg				
	operating temperature -10degree to +50degree, relevant standard				
	EN 54 part5 LPCB approval, temperature 58degree and				
	sensitivity grade 1	Nr	13		
E	Sounder and strobes, output 8" solenoid bell 12v 105dB (A)				
	at 1m with strobe 14.2mA without strobe 4.5mA, 24v 105.5dB				
	(A) at 1m with strobes 12mA(without strobes 4.5mA,strobe				
	output equivalent to a 3wxenon strobe, average current 6mA				
	at 24v, operating voltage range 10.8-28.8v, sound and				
	synchronization better than +30mS over 20				

	minutes with all				
	units powered from the same circuit, ingress protection IP55C				
	with the deep base IP31C with the shallow base, approximate				
	weight 0.3kg, 0perating temperature -10degree to +50degree				
	, relevant standard EN54-3, IR control operating distance 3m				
	complies with EN54 part 3	Nr	10		
F	Poland relay to switch 230v equipment	Nr	1		
G	25mm diameter PVC conduit	m	120		
H	Fire resistance cable 2x1.5mm2 standard pirelli cable	m	250		
711	COMMUNICATION				
A	Allow a provisonal sum for internet access wireless connection				
	to be executed complete as directed by the site Engineer	L.S.	1		
712	TESTING AND COMMISSIONING				
A	Testing and commissioning of the whole				
	installation	L.S.	1		
	SUB-TOTAL 700				
800	SANITARY INSTALLATIONS AND SEWAGE DISPOSAL				
	PLUMBING AND MECHANICAL SERVICES				
	Y25: General pipeline equipment				
	Equipment; supply, install and connect up pipeline equipment				
	as manufactured by Twyford or approved equal with				
	all necessary accessories for complete installation				
801	Sanitary appliances				
A	Water closet suit "Por S" trap complete with				
	9 litres ceramic cistern, plastic seat and cover				
	flush pipe, 13mmØ stop cock and relevant				
	accessories; TWYFORD or approved equal	Nr	2		
B	560×470mm wash hand basin complete with				

	bottle trap plus fixing brackets, TWYFORDS				
	or approved equal {without pedestal}	Nr	2		
C	Hard held bidet	Nr	2		
D	50mmØ floor drain	Nr	3		
E	Chrome-plated soap dispenser for fixing in the toilets with				
	concealed screws.	Nr	2		
F	Screw to wall Toilet Roll Holder in stainless steel with thief proof				
	holder. Complete with chrome plated fixing screws	Nr	2		
G	Plate plain glass type toilet mirror for placement and fixing on top of				
	the lavatory basins.	Nr	2		
H	Chrome-plated soap dish for fixing in the toilets with concealed				
	screws.	Nr	2		
J	Annal Spray with flexible connector and all necessary installtion				
	and operational accessaries.	Nr	2		
802	COLD WATER SUPPLY PVC PIPES&FITTINGS				
A	13mmØ uPVC pressure pipe	m	20		
B	19mmØ uPVC pressure pipe	m	15		
C	25mmØ uPVC pressure pipe	m	40		
D	32mmØ uPVC pressure pipe	m	30		
E	Raiser for cold water supply	Nr	1		
F	13mmØ Elbow	Nr	8		
G	19mmØ Elbow	Nr	4		
H	19/13mmØ reducing Tee	Nr	2		
J	25/19mm reducer	Nr	3		
K	13mmØ tee	Nr	6		
L	19mmØ tee	Nr	2		
M	19mmØ stand tap	Nr	1		
N	13mmØ taphead tap	Nr	3		
P	13mmØ union connector	Nr	6		
P	19mmØ union connector	Nr	1		
Q	13mmØ Nipple	Nr	5		

S	19mmØ Gate valve	Nr	1		
T	13mmØ gate valve	Nr	2		
U	25mmØ Elbow	Nr	4		
V	25mmØ union connector	Nr	4		
W	25mmØ Gate valve	Nr	1		
W	32mmØ Gate valve	Nr	1		
Z	32mmØ Non-return valve	Nr	1		
ZZ	32mmØ water meter	Nr	1		
803	**SEWAGE PVC PIPES/FITTINGS**				
A	50mmØ PVC pipe	m	60		
B	100mmØ PVC pipe	m	60		
C	supply and fix soil water stack	Nr	1		
D	50mmØ PVC bend × 90°	Nr	20		
E	100mmØ PVC bend × 90°	Nr	10		
F	50mmØ PVC bend × 45°	Nr	10		
G	100mmØ × 45° bend	Nr	10		
H	50mmØ tee × 90°	Nr	10		
J	50mmØ access plug	Nr	20		
K	50mmØ coupling	Nr	20		
L	50/40mmØ reducer	Nr	2		
M	Tangit Gum	Nr	1		
N	Construct manhole 600x600mm	Nr	5		
804	**FIRE FIGHTING**				
	Fire fighting equipment, accessories and angus or				
	approved equivalent				
A	50mm nominal size	Nr	100		
	VALVES				
B	50mm nominal size	Nr	5		
	TEES & ELBOWS				
C	50mm nominal size	Nr	5		
	non-return valve				
D	50mm nominal size	Nr	3		
E	Fire hosereel pumps 2nr electric FHR pump with				
	complete accessories duty pump, grundfos pump				
	HSY,NB 32/A with flow 9m per h, head 46m,				
	electrical motor rating 4kw and 8A current				
	8A current.	Nr	1		
F	Reel with spray nozzle	Nr	3		
G	Fire hydrant	Nr	3		
H	2-way piller type 100 drilled flange	Nr	3		
J	supply and fix soil water stack	Nr	1		
K	Geepee plastic water storage tank (SUPREME) tank				
	mounted vertically on 600mm high reinforced base				

	foundation to structural details, size 2100x2100x3200mm				
	high with capacity: 10,000litre	Nr	1		
	Portable Fire Extinguishers				
M	ABC Dry Chemical Powder fire extinguishers of 9kg capacity				
	filled with Mono-ammonium phosphate and Ammonium soleplate; with				
	a discharge time of 15 secs and range of 7m, complete with				
	indicator discharge hose and wall hook cylinder. Finish - BLUE;				
	Make - AMEREX or equal.	Nr	5		
N	Gas/carbon dioxide fire extinguisher of 5kg capacity for BC and				
	Electrical fires; with a discharge range of 7m, complete with				
	pressure indicator and discharge hose.	Nr	5		
P	Gas/carbon dioxide fire extinguisher of 45kg capacity for BC and				
	Electrical fires; on trolley with a discharge range of 30m,				
	complete with pressure indicator and discharge hose.	Nr	2		
805	AIR-CONDITONING & VENTILATION SYSTEM				
	Equipment; CARRIER or other approved equal wall mounted air conditioner complete with insulated interconnecting refridgerant line, condensation pipe and electrical connection.				
A	12000 Btu/hr Split Unit Airconditioners complete with indoor				
	blower unit and outdoor condesing unit, over and under voltage				
	protection, refridgerant, condesate pipe network, and all				
	necessary and required installation and operational accessories.				
	(LG or Panasonic)	Nr	3		
B	18000 Btu/hr Split Unit Airconditioners complete with indoor				
	blower unit and outdoor condesing unit, over and under voltage				

	protection, refridgerant, condesate pipe network, and all				
	necessary and required installation and operational accessories.				
	(LG or Panasonic)	Nr	1		
D	Allow for 25mm dia upvc drain pipes including elbows, sockets				
	and fittings	m	30		
E	Allow for 75mm dia upvc pipes for refrgderant pipes including				
	elbows, sockets and fittings	m	30		
F	Allow for testing and commissioning	Item	sum		
806	STORM WATER DRAINAGE				
A	100mmØPVC pipe	m	20		
807	WATER SUPPLY				
	BOREHOLE				
A	Allow for construction of Borehole complete with geophysical				
	survey, submersible,100mm diameter casing, 100mm uPVC				
	uPVC pressure pipe, reticulation, cement grouting, flushing,				
	testing and all necessary details	Nr	1		
B	ELEVATED WATER STORAGE TANKS AND PUMPS				
	Geepee plastic 0verhead water storage tank (SHAKT) tank				
	mounted vertically on 10m high steel stanchion to structural details,				
	size: 1300x1300x1900mm deep. Capacity 3000litre complete				
	with flow switches and overflow	Nr	1		
	GROUND TANK				
B	Geepee plastic water storage tank (SUPREME) tank				
	mounted vertically on 600mm high reinforced base foundation to				
	structural details, size 2100x2100x3200mm high with				
	capacity: 10,000litre complete	Nr	1		

C	BOOSTER PUMPS,				
	BOOSTER PUMPS 1.5hp Electric pump, @ head of 19.6m 1-duty 1 stand-by				
	GROUNDFOS pumps, flow 1.30litre per second,electrical motor	Nr			
	rating 0.75kw with current 1.4A		2		
808	Treatment unit (septic tank, soak away pit, inspection chamber)	U	1.00		
809	**TESTING**				
A	Testing and commissioning	item	sum		
	SUB-TOTAL 800				
900	**PAINTING AND DECORATION**				
901	Whitewash on walls	m2	940.00		
902	Two coats of Pantex 800 on ceiling	m2	282.20		
903	Two coats of Pantex 800 on internal walls	m2	236.00		
904	Two coats of Pantex 1300 on external walls	m2	234.00		
905	Oil paint doors, windows & skirting	m2	300.00		
	SUB-TOTAL 900				
1000	**EXTERNAL WORKS**				
1001	Gutters in concrete Pc 200kg/m3	ml	65.00		
1002	Concreting of external perimeter Pc 200kg/m3	m^2	54.72		
1003	Add for fencing and recreation facility and security gate	ml	160.00		
	SUB-TOTAL 1000				
1100	**OTHER WORKS/ACCESSORIES**				
1101	STUDIES AND CONSRUCTION OF A WELL , AN OVERHEAD TANK, A PUMP AND A SOLAR PANEL	U	1		
1102	Improvement of access, Drive way and parking in concrete Pc 300kg/m3 pavement well consolidated	m3	29.70		
	SUB-TOTAL 1100				
	TOTAL CONSTRUCTION COST				
1200	**EQUIPMENT SPECIFICATION AND CHARACTERISTICS**				
1201	Acquisition of fish mill, shipment, transportation and installation for operation as per specifications.	LS	1.00		
	SUB-TOTAL 1200				
	TOTAL FISH FEED MILL WITHOUT TAXES				
	GRAND TOTAL LOT 2 (2.1+2.2+2.3)				

MODEL OF UNIT PRICE BREAK DOWN

N° Price	Description of activities	Daily out put	Total Quantity:	Unit	Activities Duration:
A - PERSONNEL	Category	number	Daily Salary	Paid Man days	Amount
			Total A		
B - EQUIPMENT	Type	number	daily rate	Days billed	Amount
			Total B		
C - MATERIALS	Type	unit	Unit price	Quantity	Amount
			Total C		
D	TOTAL Direct cost		A + B + C		
E	General site expenses		D x YY%		
F	General head office expenses		D x ZZ%		
G	Cost price		D + E +F		
H	Risk and profit		G x PP%		
I	Total cost excluding taxes		G + H		
J	UNIT PRICE WITHOUT TAX		I/QTY		

Schedule of Payment Currencies

For [.....*insert name of Section of the Works*]

Separate tables may be required if the various sections of the Works (or of the Bill of Quantities) will have substantially different foreign and local currency requirements. The Employer should insert the names of each Section of the Works.

	A	B	C	D
Name of Payment Currency	Amount of Currency	Rate of Exchange to Local Currency	Local Currency Equivalent C = A x B	Percentage of Net Bid Price (NBP) 100xC / NBP
Local currency _____		1.00		
Foreign Currency #1 _____				
Foreign Currency #2 _____				
Foreign Currency #3 _____				
Net Bid Price				100.00
Provisional Sums Expressed in Local Currency		1.00		
BID PRICE				

Table(s) of Adjustment Data

Table A - Local Currency

Index Code	Index Description	Source of Index	Base Value and Date	Bidder's Local Currency Amount	Bidder's Proposed Weighting
	Nonadjustable	—	—	—	A: ____ B: ____ C: ____ D: ____ E: ____
			Total		**1.00**

Table B - Foreign Currency
Name of Currency: _____

If the Bidder wishes to quote in more than one foreign currency, this table should be repeated for each foreign currency.

Index Code	Index Description	Source of Index	Base Value and Date	Bidder's Currency in Type/Amount	Equivalent in FC1	Bidder's Proposed Weighting
	Nonadjustable	—	—	—		A: ____ B: ____ C: ____ D: ____ E: ____
				Total		**1.00**

Form of Bid Security (Bank Guarantee)

_____ [*Bank's Name, and Address of Issuing Branch or Office*]

Beneficiary: _____ [*Name and Address of Employer*]

Date: _____

BID GUARANTEE No.: _____

We have been informed that _____ [*Name of the Bidder*] (hereinafter called "the Bidder") has submitted to you its bid dated _____ (hereinafter called "the Bid") for the execution of _____ [*Name of Contract*] under Invitation for Bids No. _____ ("the IFB").

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

At the request of the Bidder, we _____ [*Name of Bank*] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of _____ [*amount in figures*] (_____) [*amount in words*] upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

(a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Form of Bid; or

(b) having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) fails or refuses to execute the Contract Form, if required, or (ii) fails or refuses to furnish the performance security, in accordance with the ITB.

This guarantee will expire: (a) if the Bidder is the successful Bidder, upon our receipt of copies of the contract signed by the Bidder and the performance security issued to you upon the instruction of the Bidder; and (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy your notification to the Bidder of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of the Bidder's bid.

Consequently, any demand for payment under this guarantee must be received by us at the office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.

_____

[signature(s)]

Form of Bid Security (Bid Bond)

BOND NO. _____

BY THIS BOND [*Name of Bidder*] as Principal (hereinafter called "the Principal"), and [*name, legal title, and address of surety*], **authorized to transact business in** [*Name of country of Employer*], as Surety (hereinafter called "the Surety"), are held and firmly bound unto [*name of Employer*] as Obligee (hereinafter called "the Employer") in the sum of [*amount of Bond*][9] [*amount in words*], for the payment of which sum, well and truly to be made, we, the said Principal and Surety, bind ourselves, our successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has submitted a written Bid to the Employer dated the ___ day of _____, 20__, for the construction of [*name of Contract*] (hereinafter called the "Bid").

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal:

(a) withdraws its Bid during the period of bid validity specified in the Form of Bid; or

(b) having been notified of the acceptance of its Bid by the Employer during the period of Bid validity; (i) fails or refuses to execute the Contract Form, if required; or (ii) fails or refuses to furnish the Performance Security in accordance with the Instructions to Bidders;

then the Surety undertakes to immediately pay to the Employer up to the above amount upon receipt of the Employer's first written demand, without the Employer having to substantiate its demand, provided that in its demand the Employer shall state that the demand arises from the occurrence of any of the above events, specifying which event(s) has occurred.

The Surety hereby agrees that its obligation will remain in full force and effect up to and including the date 28 days after the date of expiration of the Bid validity as stated in the Invitation to Bid or extended by the Employer at any time prior to this date, notice of which extension(s) to the Surety being hereby waived.

IN TESTIMONY WHEREOF, the Principal and the Surety have caused these presents to be executed in their respective names this ____ day of _____ 20__.

Principal: _____	Surety: _____
	Corporate Seal (where appropriate)
_____	_____
(Signature)	*(Signature)*
(Printed name and title)	*(Printed name and title)*

[9] *The amount of the Bond shall be denominated in the currency of the Employer's country or the equivalent amount in a freely convertible currency.*

Form of Bid-Securing Declaration

(Not Applicable)

Date: [*insert date (as day, month and year)*]
Bid No.: [*insert number of bidding process*]
Alternative No.: [*insert identification No if this is a Bid for an alternative*]

To: [*insert complete name of Employer*]

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration.

We accept that we will automatically be suspended from being eligible for bidding in any contract with the Beneficiary for the period of time of [*insert number of months or years*] starting on [*insert date*], if we are in breach of our obligation(s) under the bid conditions, because we:

(a) have withdrawn our Bid during the period of bid validity specified in the Letter of Bid; or

(b) having been notified of the acceptance of our Bid by the Employer during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the ITB.

We understand this Bid-Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid.

Signed: [*insert signature of person whose name and capacity are shown*]

In the capacity of [*insert legal capacity of person signing the Bid-Securing Declaration*]

Name: [*insert complete name of person signing the Bid-Securing Declaration*]

Duly authorized to sign the bid for and on behalf of: [*insert complete name of Bidder*]

Dated on _____ day of _____, _____ [*insert date of signing*]

Corporate Seal (where appropriate)

[**Note:** *In case of a Joint Venture, the Bid-Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid.*]

Technical Proposal

Technical Proposal Forms

Personnel

Equipment

Site Organization

Method Statement

Mobilization Schedule

Construction Schedule

Others

Forms for Personnel

Form PER – 1: Proposed Personnel

Bidders should provide the names of suitably qualified personnel to meet the specified requirements for each of the positions listed in Section III (Evaluation and Qualification Criteria). The data on their experience should be supplied using the Form below for each candidate.

1.	Title of position
	Name
2.	Title of position
	Name
3.	Title of position
	Name
4.	Title of position
	Name
5.	Title of position
	Name
6.	Title of position
	Name
etc.	Title of position
	Name

Form PER – 2: Resume of Proposed Personnel

The Bidder shall provide all the information requested below. Fields with asterix (*) shall be used for evaluation.

Position*		
Personnel information	**Name ***	**Date of birth**
	Professional qualifications	
Present employment	**Name of Employer**	
	Address of Employer	
	Telephone	**Contact (manager / personnel officer)**
	Fax	**E-mail**
	Job title	**Years with present Employer**

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

From*	To*	Company, Project , Position, and Relevant Technical and Management Experience*

Forms for Equipment

The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III (Evaluation and Qualification Criteria). A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder. The Bidder shall provide all the information requested below, to the extent possible. Fields with asterisk (*) shall be used for evaluation.

Type of Equipment*		
Equipment Information	**Name of manufacturer**	**Model and power rating**
	Capacity*	**Year of manufacture***
Current Status	**Current location**	
	Details of current commitments	
Source	**Indicate source of the equipment** ☐ **Owned** ☐ **Rented** ☐ **Leased** ☐ **Specially manufactured**	

The following information shall be provided only for equipment not owned by the Bidder.

Owner	**Name of owner**	
	Address of owner	
	Telephone	**Contact name and title**
	Fax	**Telex**
Agreements	**Details of rental / lease / manufacture agreements specific to the project**	

Bidder's Qualification

To establish its qualifications to perform the contract in accordance with Section III (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder

Form ELI 1.1

Bidder Information Sheet

Date: _____
Bidding No.: _____
Invitation for Bid No.: _____
Page _____ of _____ pages

1. Bidder's Legal Name
2. In case of JV, legal name of each party:
3. Bidder's actual or intended Country of Registration:
4. Bidder's Year of Registration:
5. Bidder's Legal Address in Country of Registration:
6. Bidder's Authorized Representative Information Name: Address: Telephone/Fax numbers: Email Address:
7. Attached are copies of original documents of: ☐ Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITB Sub-Clauses 4.1 and 4.2. ☐ In case of JV, letter of intent to form JV including a draft agreement, or JV agreement, in accordance with ITB Sub-Clauses 4.1 ☐ In case of government owned entity from the Employer's country, documents establishing legal and financial autonomy and compliance with the principles of commercial law, in accordance with ITB Sub-Clause 4.5.

Form ELI 1.2

Party to JV Information Sheet

Date: _____
Bidding No.: _____
Invitation for Bid No.: _____
Page _____ of _____ pages

1. Bidder's Legal Name:
2. JV's Party legal name:
3. JV's Party Country of Registration:
4. JV's Party Year of Registration:
5. JV's Party Legal Address in Country of Registration:
6. JV's Party Authorized Representative Information Name: Address: Telephone/Fax numbers: Email Address:
7. Attached are copies of original documents of: ☐☐☐ Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITB Sub-Clauses 4.1 and 4.2. ☐ In case of government owned entity from the Purchaser's country, documents establishing legal and financial autonomy and compliance with the principles of commercial law, in accordance with ITB Sub-Clause 4.5.

Form CON – 2

Historical Contract Non-Performance

Bidder's Legal Name: _____ Date: _____
JV Partner Legal Name: _____
Bidding No.: _____
Page _____ of _____ pages

Non-Performing Contracts in accordance with (Evaluation and Qualification Criteria)			
☐☐☐Contract non-performance did not occur during the stipulated period, in accordance with Sub-Factor 2.2.1 of Section III (Evaluation and Qualification Criteria) ☐☐☐Contract non-performance during the stipulated period, in accordance with Sub-Factor 2.2.1 of Section III(Evaluation and Qualification Criteria).			
Year	Outcome as Percent of Total Assets	Contract Identification	Total Contract Amount (current value, US$ equivalent)
_____	_____	Contract Identification: Name of Employer: Address of Employer: Matter in dispute:	_____
Pending Litigation, in accordance with Section III (Evaluation and Qualification Criteria)			
☐☐☐No pending litigation in accordance with Sub-Factor 2.2.2 of Section III(Evaluation and Qualification Criteria) ☐ Pending litigation in accordance with Sub-Factor 2.2.2 of Section III(Evaluation and Qualification Criteria), as indicated below			
Year	**Outcome as Percent of Total Assets**	**Contract Identification**	**Total Contract Amount (current value, US$ equivalent)**
_____	_____	Contract Identification: Name of Employer: Address of Employer: Matter in dispute:	_____
_____	_____	Contract Identification: Name of Employer: Address of Employer: Matter in dispute:	_____

Form CCC

Current Contract Commitments / Works in Progress

Bidders and each partner to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Name of contract	Employer, contact address/tel/fax	Value of outstanding work (current US$ equivalent)	Estimated completion date	Average monthly invoicing over last six months (US$/month)
1.				
2.				
3.				
4.				
5.				
etc.				

Financial Situation

Historical Financial Performance

Bidder's Legal Name: _____ Date: _____
JV Partner Legal Name: _____ Bidding No.: _____
Page _____ of _____ pages

To be completed by the Bidder and, if JV, by each partner

Financial information in US$ equivalent	Historic information for previous _____ (_) years (US$ equivalent in 000s)						
	Year 1	Year 2	Year 3	Year …	Year n	Avg.	Avg. Ratio
Information from Balance Sheet							
Total Assets (TA)							
Total Liabilities (TL)							
Net Worth (NW)							
Current Assets (CA)							
Current Liabilities (CL)							
Information from Income Statement							
Total Revenue (TR)							
Profits Before Taxes (PBT)							

☐ Attached are copies of financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following conditions:

- Must reflect the financial situation of the Bidder or partner to a JV, and not sister or parent companies
- Historic financial statements must be audited by a certified accountant
- Historic financial statements must be complete, including all notes to the financial statements
- Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted)

Form FIN – 3.2

Average Annual Turnover

Bidder's Legal Name: _____ Date: _____
JV Partner Legal Name: _____ Bidding *No.*: _____
Page _____ of _____ pages

Annual turnover data (construction only)		
Year	**Amount and Currency**	**US$ equivalent**
*Average Annual Construction Turnover		

*Average annual turnover calculated as total certified payments received for work in progress or completed over the number of years specified in Section III (Evaluation and Qualification Criteria), Sub-Factor 2.3.2, divided by that same number of years.

Form FIN3.3

Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as indicated in Section III (Evaluation and Qualification Criteria)

Source of financing	Amount (US$ equivalent)
1.	
2.	
3.	
4.	

Experience

General Experience

Bidder's Legal Name: _____ Date: _____
JV Partner Legal Name: _____ Bidding No.: _____
Page _____ of _____ pages

Starting Month / Year	Ending Month / Year	Years*	Contract Identification	Role of Bidder
			Contract name: Brief Description of the Works performed by the Bidder: Name of Employer: Address:	
			Contract name: Brief Description of the Works performed by the Bidder: Name of Employer: Address:	
			Contract name: Brief Description of the Works performed by the Bidder: Name of Employer: Address:	
			Contract name: Brief Description of the Works performed by the Bidder: Name of Employer: Address:	
			Contract name: Brief Description of the Works performed by the Bidder: Name of Employer: Address:	
			Contract name: Brief Description of the Works performed by the Bidder: Name of Employer: Address:	

*List calendar year for years with contracts with at least nine (9) months activity per year starting with the earliest year

Form EXP – 2.4.2(a)

Specific Experience

Bidder's Legal Name: _____ Date: _____
JV Partner Legal Name: _____ Bidding No.: _____

Page _____ of _____ pages

Similar Contract Number: ___ [*insert specific number*] **of** ___ [*insert total number of contracts*] **required**	**Information**		
Contract Identification			
Award date Completion date			
Role in Contract	☐ Contractor	☐ Management Contractor	☐ Subcontractor
Total contract amount			US$_____
If partner in a JV or subcontractor, specify participation of total contract amount	_____%	_____	US$_____
Employer's Name:			
Address: Telephone/fax number: E-mail:			

Form EXP – 2.4.2(a) (cont.)

Specific Experience (cont.)

Bidder's Legal Name: _____ Page _____ of _____ pages
JV Partner Legal Name: _____

Similar Contract No. __ [*insert specific number*] of __ [*insert total number of contracts*] required	**Information**
Description of the similarity in accordance with Sub-Factor 2.4.2a) of Section III (Evaluation and Qualification Criteria):	
Amount	
Physical size	
Complexity	
Methods/Technology	
Physical Production Rate	

Form EXP – 2.4.2(b)

Specific Experience in Key Activities

Bidder's Legal Name: _____ Date: _____
JV Partner Legal Name: _____ Bidding No.: _____
Subcontractor's Legal Name: _____ Page _____ of _____ pages

	Information		
Contract Identification			
Award date Completion date			
Role in Contract	☐ Contractor	☐ Management Contractor	☐ Subcontractor
Total contract amount			US$_____
If partner in a JV or subcontractor, specify participation of total contract amount	_____%	_____	US$_____
Employer's Name:			
Address: Telephone/fax number: E-mail:			

Section V - Eligible Countries

Eligibility for the Provision of Goods, Works and Services in Bank-Financed Procurement

1. In accordance with Para 1.7 of the Guidelines for Procurement of Goods and Works Under Islamic Development Bank Financing, May 2009, the Bank permits firms and individuals from all member countries to offer goods, works and services for Bank-financed projects. It is a fundamental policy of IDB that the bidding documents shall unequivocally stipulate that the providers of goods and works, and their associates and subcontractors, shall be in strict compliance with the Boycott Regulations of the Organization of the Islamic Conference, the League of Arab States and the African Union. The Beneficiary shall advise intending contractors and suppliers that bids will only be considered from contractors and suppliers who are not subject to said Boycott Regulations. Bidders, through an agent in the Member Countries concerned or through one of the Member Countries' Embassies in the country of origin of the bidder, may acquire a certificate which certifies that the bidder is not blacklisted.

For the boycott requirement, the eligibility of a supplier or contractor will be determined during the evaluation process. In cases where suppliers or contractors withhold information to evade disqualification on account of the boycott requirement, the Beneficiary will have the right to cancel the contract at any time and also to penalize such parties and claim compensation for losses incurred, as a consequence thereof, by the Beneficiary and IDB. IDB reserves the right not to honor any contract if the supplier or contractor involved is found to be subject to the boycott requirement.

For the purpose of eligibility, a Member Country contractor or supplier is defined as follows:

i. *it is registered or otherwise organized in a Member Country of the IsDB;*
ii. *its principal place of business is located in a Member Country of the IsDB;*
iii. *it is more than 50% beneficially owned by a firm or firms in one or more Member Countries (which firm or firms must also qualify as to nationality) and/or citizens of such Member Countries;*
iv. *not less than 80% of all persons who will perform services under the contract, whether employed directly or by a subcontractor, are nationals of IsDB Member Countries; and*
v. *the majority of managerial and professional staff are nationals of the Beneficiary Member Country or of other Member Countries.*

For the purpose of these Guidelines, a domestic firm of a Member Country is defined as follows:

i. *it is registered or incorporated in the Beneficiary Member Country;*
ii. *its principal place of business is located in the Beneficiary Member Country;*
iii. *it is more than 50% beneficially owned by a firm or firms in the Beneficiary Member Country (which firm or firms must also qualify as to nationality) and/or citizens of such Member Country;*
iv. *not less than 80% of the persons who will perform services under the contract in the Beneficiary Member Country, whether employed directly or by a subcontractor, are nationals of the Beneficiary Member Country; and*
v. *the majority of managerial and professional staff are nationals of the Beneficiary Member Country.*

2. As an exception, firms of a Country or goods manufactured in a Country may be excluded if:

(a) As a matter of law or official regulation, the Beneficiary's Country prohibits commercial relations with that Country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of the Goods or Works required, or

(b) By the Boycott Regulations of the Organization of the Islamic Cooperation, the League of Arab States and the African Union, the Beneficiary's Country prohibits any import of goods from that Country or any payments to persons or entities in that Country.

3. For the information of Beneficiary's and bidders, at the present time firms, goods and services from the following countries are excluded from this bidding:

(a) With reference to paragraph 2 (a) above:

[insert list of countries prohibited under official regulations of the country]

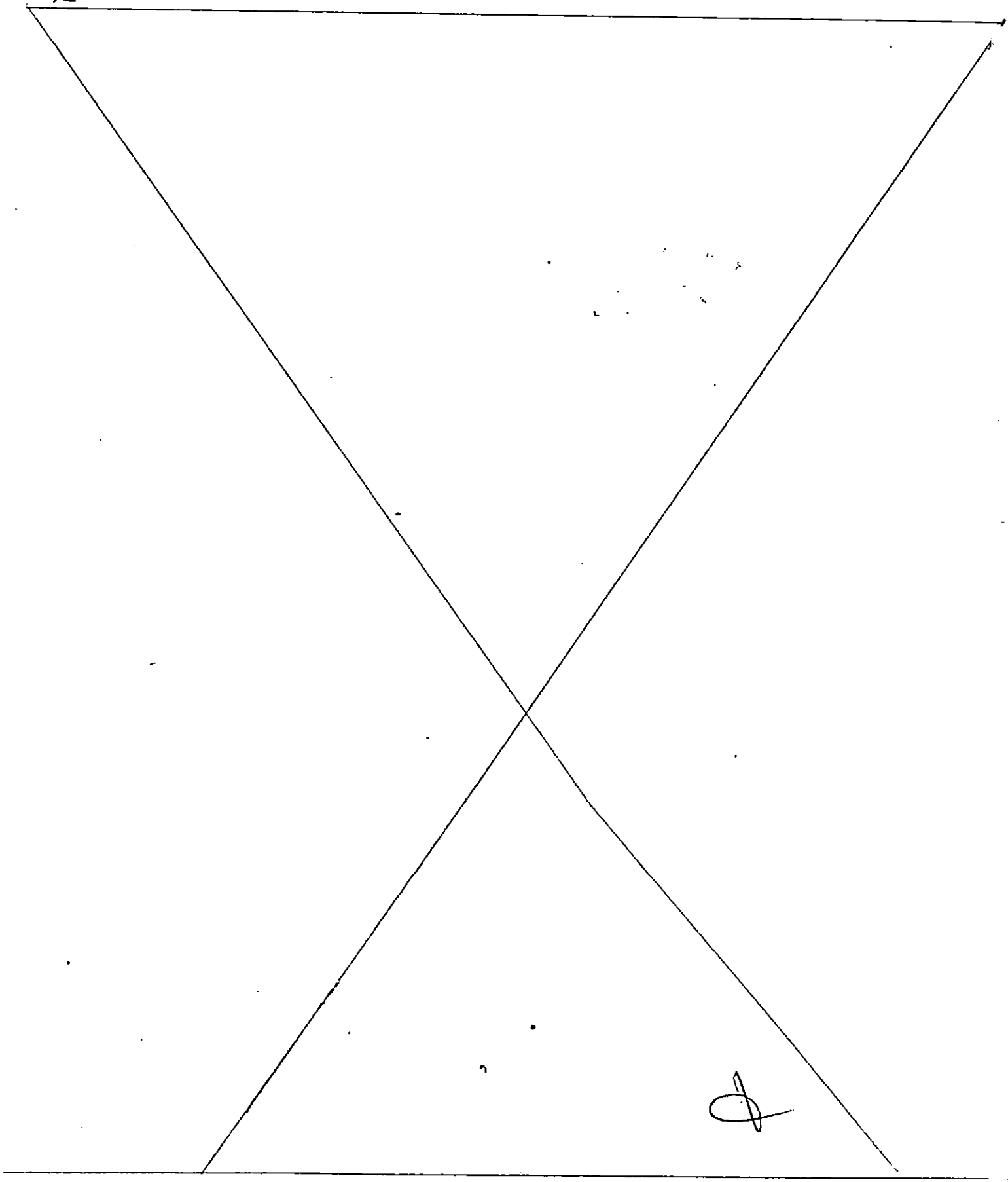
(b) With reference to paragraph 2 (b) above:

[insert list of countries which are barred under Boycott Regulations of the Organization of the Islamic Cooperation, the League of Arab States and the African Union]

PART 2

Employer's Requirements

2-2



Section VI - Employer's Requirements

Table of Contents

A: Specifications for works

SUMMARY

CHAPTER I - GENERAL INFORMATION

Article 1 - LOCATION OF WORKS AND VOLUME OF WORK

Works will involve the construction of buildings

The location is defined on the block/situation plan. The selected sites have been found favourable to the envisaged structure in terms of geo-techniques, cross-section, atmospheric conditions, topography, and sewage disposal, automobile and pedestrian accessibility.

Generally all the works are in the North West Region.

The various works to be executed are detailed in the bill of quantities and the execution drawings. These three documents (Specifications, the bill of quantities and the execution drawings) are therefore complementary.

Article 2 GENERAL INSTRUCTIONS

It should be taken into consideration that these specifications complete the plans and the plans complete the specifications. The Supervisor shall give modifications to plans provided or technical specifications in writing. For this purpose, a numbered page book shall be on site in which the instructions are written. Both the contractor and the Supervisor shall initial the book pages. Therefore, the site contractor must execute the works in conjunction with this document. The contractor shall take note of any omissions or discrepancies that may exist in the document and call the attention of the Supervisor who is at his disposal for necessary information and inquiries. Any works carried out in negation of these instructions or provisions shall be demolished at the expense of the contractor.

CHAPTER II - ORIGIN, QUALITY AND PREPARATION OF MATERIALS

Article 3 QUALITY AND SUPPLY OF MATERIALS

The contractor shall be responsible for the supply of sand, gravel, stones, cement, rods and timber for roofing, formworks and temporal supports. He will also be responsible for the excavation and backfilling works on site under the supervision of the engineer. In making his bids the contractor shall visit the sites at his own expense to ascertain delivery conditions and other fiscal features that can influence his bids.

Article 4 Sand

The nature and origin of sand remains subject to the Supervisor's approval. It shall be obtained from rivers or through crushing. The sand component should be more than 80% and the very fine constituents eliminated by settling should be less than 4%. The sand should be of high quality and must be free from dirt, clay, or any organic matter and if deemed necessary, it should be washed before being used.

Article 5 Gravel

They shall be obtained from deposits or quarries chosen by the Contractor, and approved by the Supervisor. They should be clean (constituents eliminated through settling should be less than 2%) and their grading suited to their use. If deemed necessary, it shall be washed before being used

Article 6 Stones

They shall be obtained from a quarry or deposit approved by the Supervisor and none should be smaller than 20 cm. Basalt stones commonly called black stone are recommended for the project or stones of other quality duly tested and approved by the supervising engineer.

Article 7 Cement

They should be of CPA 325 class and be obtained from an approved factory.

Article 8 (i) Concrete Works

Concrete Works shall be of 3 kinds:-

i. Lean concrete for foundation works where indicated shall be of PC 150 kg/m^3 and 5 cm thick.
ii. Mass concrete for foundations shall be PC 250kg/m^3 and thickness as shown on the plans
iii. Reinforced concrete for floor slabs, beams, columns and lintels shall be PC 350kg/m^3 and thickness as shown on the plans.

Article 8(ii) Any other materials

These shall meet required standards and from recognised and verifiable sources. Water to be used for mixes shall be potable from approved source(s)

CHAPTER III - METHOD OF EXECUTION

Article 9 General Information

9.1 Security

The Contractor shall be required to place at the entrance to the works site and in its vicinity, signboards indicating that work is underway and he shall be responsible for any accident that occurs on the works site and/or suffered by a third party, his staff and employees and officials of the Administration as a result of their presence on the works site. Organization of work and security on the works site shall be the responsibility of the Contractor.

9.2 Traffic

The Contractor shall be responsible for ensuring that traffic is not obstructed on the entire stretch of his works site throughout the period of work up till provisional acceptance. No obstruction of traffic shall be allowed for more than two hours. Maintenance of traffic flow shall be the responsibility and at the expense of the Contractor and in case of any breach of contract by the latter, the Supervisor may bring in a third party to correct any faults. All related expenses shall be borne by the Contractor.

Where interference with traffic is inevitable, the opinion of local administrative authorities shall be required for any obstruction for a given period.

Article 10 SITE WORK

10.1 SCOPE OF WORK

1. Setting out buildings, establishment of lines, grades and benchmarks,
2. All excavation work including all necessary shoring, bracing, and drainage of storm water from site-
3. All backfilling, filling and grading, removal of excess material on site.
4. Protection of property, work and structures, workmen, and other people from damage and injury.

10.2 LINES; GRADES AND BENCHMARKS

1. Setout accurately the line of the building and of the other structures included in the contract, and establish grade and thereafter secure approval from Architect before any excavation work is commenced.
2. Erect basic batter boards and basic reference marks, at such places where they will not be disturbed during the construction of the foundation.

10.2 EXCAVATION:

Structural excavations – excavations shall be to the depths indicated bearing values. Excavations for footings and foundations carried below required depths shall be filled with concrete. The bottom of such shall be level. All structural excavations shall extend a sufficient distance from the walls and footings to allow for proper erection and dismantling of forms, for installation of services and for inspection. All excavations shall be inspected and approved before laying underground for placing select fill materials pouring any concrete.

The contractor shall control the grading in the vicinity of all excavated areas to prevent surface drainage running into excavations. Water accumulated in excavated areas shall be removed by pumping before concrete is placed.

10.3 FILLING AND BACKFILLING

After forms have been removed from footing, piers, foundations, walls, etc and when concrete work is hard enough to resist pressure resulting from fill, backfilling may then be done. Materials excavated may be used for backfilling; all filling shall be placed in layers not exceeding 150mm in thickness, each layer being thoroughly compacted and rammed. Wetting, tamping, and rolling is recommended if soil moisture content is too low.

10.4 PLACING AND COMPACTING FILL

1. Common fill-shall be approved on site –select approved excavated material free from roots, stumps and other perishable or objectionable matter.
2. Selected fill – shall be placed where indicated and shall consist of crushed gravel, crushed rock, or a combination thereof. The material shall be free from adobe, vegetable matter and shall be thoroughly tamped after placing.
3. Before placing fill material, the surface upon which it will be placed shall be cleared of all brush roots, vegetable matter and debris, scarified and thoroughly wetted to insure good bonding between the grounds.

10.5 DISPOSAL OF SURPLUS MATERIALS

Any excess material remaining after completion of the earthworks shall be disposed by hauling and spreading in nearby spoil areas designated by the OWNER. Excavated material deposited in spoil areas shall be graded to a uniform surface.

Article 11: CONCRETE AND REINFORCED CONCRETE:

11.1 GENERAL

Unless otherwise specified herein, concrete work shall conform to the requirements of LABOGENIE. Full cooperation shall be given other trades to install embedded items. Provisions shall be made for certain items not placed in the forms. Before concrete is placed, embedded items shall have been inspected and testing for concrete aggregates and other materials shall have been done.

11.2 MATERIALS

1. Cement for the concrete shall conform to the requirements of specifications for the artificial Portland cement (CPJ35) of the CIMENCAM S.A
2. Water used in mixing concrete shall be clean and free from any other injurious amounts of oils, acids, alkaline, organic materials or other substances that may be deleterious to concrete or steel.
3. Fine aggregates shall consist of hard, tough, durable uncoated particles. The shape of the particles shall be generally rounded or cubicle and reasonably free from flat or elongated particles. The stipulated percentages of fines in the sand shall be obtained either by the processing of natural sand or by the production of a suitably graded manufactured sand.
4. Coarse aggregate shall consist of gravel, crushed gravel or rock, or a combination of gravel and rock, coarse aggregates shall consist of hard, tough, durable, lean and uncoated particles.
5. Reinforced Bars shall conform to the requirements of, "La societe' SOLADO" standard specifications for Billet Steel Bars for concrete

reinforcement and to specification for minimum requirements for the deformed steel bars for concrete reinforcement.

All secondary ties such as stirrups, spirals and insets may be plain bars. The main reinforcing bars shall be as follow:

NO 1.	ϕ	6mm	NO 4.	ϕ	12mm
NO 2.	ϕ	8mm	NO 5	ϕ	14mm
NO 3.	ϕ	10mm	NO 6	ϕ	16mm
NO 7	ϕ	20mm			

The reinforcement must be tied firm using a binding wire. Do not superpose more than 3 bars by putting 1 on top of the other. Bars having the largest section must always be provided with hooks at their extremes.

11.3 PROPORTIONING AND MIXING

1. Proportions of all materials entering into the concrete shall be as follows for $1m^3$

CLASS	CEMENT	SAND	GRAVEL	USES
'A' 450kg/$1m^3$	1	1	2	Retaining walls, concreting under water
'B' 350kg/$1m^3$	1	1	2 1/2	Footings, columns, beams & R.C. slabs
'C' 250kg/$1m^3$	1	3	4	Blinding concrete, Foundation slab

2. Class of concrete – concrete shall have 28-day cylinder strength of $2.5KN/m^3$, for all concrete work, except otherwise indicated on the plan.
3. Mixing - concrete shall be machine mixed. Mixing shall begin within 30minutes after the cement has been added to aggregates. In the absence of a concrete mixer, manual mixing is allowed on a clean slab.

11.4 FORMS

1. **GENERAL:** Forms shall be used wherever necessary to confine the concrete and shaped it to the required lines to avoid the concrete from contamination with materials curving from adjacent excavated surfaces. Forms shall be of sufficient strength to withstand the pressure resulting from placement and vibration of the concrete, and shall be maintained rigidly in correct position. Forms shall be sufficiently tight to prevent loss of mortar from the concrete. Forms with exposed surfaces against which backfill is not to be placed shall be lined with a form grade plywood.
2. Cleaning and oiling of forms – Before placing the concrete, the contact surfaces of the form shall be cleaned of encrustation of mortar, the grout or

other foreign materials, and shall be coated with commercial form oil that will effectively prevent sticking and will not stain the concrete surface.

3. Removal of forms – Forms shall be removed in a manner, which will prevent damage to the concrete. Forms shall not be removed without approval. Any repairs of surface imperfections shall be performed at once and airing shall be started as soon as the surface is sufficiently hard.

11.5 PLACING REINFORCEMENT

1. GENERAL – Steel reinforcement shall be provided as indicated, together with all necessary wire ties, chairs, spacers, supporters and other devices necessary to install and secure the reinforcement properly. All reinforcement, when placed shall be free form loose, flaky rust and scale, oil grease, clay and foreign substances that would reduce or destroy its bond with concrete. Reinforcement shall be placed accurately and secured in place by use of metal or concrete supports, spacers and ties. Such supports shall be of sufficient strength to maintain the operation. The supports shall be used in such manner that they will not be exposed or contribute in any way, to the deterioration of the concrete.

2. **PLACING** – Concrete shall be vibrated into the corners and angles of the forms and around all reinforcement and embedded items without permitting the material to segregate. Concrete shall be deposited as close as possible to its final position in the forms so that flow within the mass does not exceed two (2) meters and consequent segregation is reduced to a minimum near forms or embedded items, or elsewhere as directed, the discharge shall be so controlled that the concrete may be effectively compacted into horizontal layers not exceeding 30 centimeters in depth within the maximum, lateral movement specified .All floor concrete with minimal reinforcement shall be laid in bays of maximum twenty square meters (20m2) with joints to avoid cracks.
3. Time interval between mixing and placing concrete shall be before initial set has occurred and before it has contained its water content for more than 45 minutes.
4. Consolidation of Concrete - Concrete shall be consolidated with the aid of mechanical vibration equipment and supplemented by hand spading and tamping vibrators shall not be inserted into the lower course that have commenced the initial setting and Reinforcement embedded in concrete beginning to set or already set shall not be disturbed by vibrators. Consolidation around major embedded parts shall be by hand spading and tamping and vibrations shall not be used.
5. Placing concrete through reinforcement - in placing concrete through reinforcement, care shall be taken that no segregation of the coarse aggregate occurs. On the bottom of beams and slabs, where the congestion of steel near the forms makes placing difficult, a layer of mortar of the same cement sand ratios as used in concrete shall be first deposited to cover the surface.

remaining cement paste with soft brush, to leave pea gravel in its natural texture and appearance. Before applying pea gravel finish, submit samples for approval.

12.4 SCAFFOLDING

Provide all scaffolding required for masonry work, including cleaning down and on completion should be removed.

12.5 VITRIFIED FLOOR TILE INSTALLATION

1. Do not start floor tilling occurring in space requiring both floor and wall tile.
2. Before spreading setting bed, establish borderlines centre wires in both directions to permit laying pattern with minimum of cut tiles. Lay floors without borders from centre line outward. Make adjustment at walls.
3. Clean concrete sub floor and moisten it without soaking. Sprinkle dry cement over surface. Spread setting bed mortar on concrete and tamp to assure good bond over the entire area then screed to smooth, level bed. Set average setting bed thickness at 15 mm but never less than 12mm.

12.6 WALL TILE INSTALLATIONS:

1. All back ground surfaces shall be thoroughly cleaned before work commencement.
2. **Scratch coat for application, as foundation coat shall be at most 12mm while still plastic, deeply score scratch coat or scratch and cross scratch. Protect scratch coat and keep reasonably moist within seasoning period. Use mortar for scratch; float coats, within one hour after mixing. Tempering of partially hardened mortar is not permitted. Set scratch coat shall be cured for at least 2 days before staring tile setting.**
3. For last coat use one part Portland cement, one part hydrated lime.

Article 13 CARPENTRY AND JOINERY WORK

13.1 MATERIALS

1. QUALITY OF LUMBER: Lumber shall be the approved quality of the respective kinds for the various parts of the work, well seasoned, thoroughly dry, ad free from large, loose, or unsound knots, saps, shakes, and other imperfections impairing its strength durability or appearance. All finishing lumber to be used shall be completely dried and shall not contain more than 14% moisture. All flooring, tongue and grooved shall be kiln dried.
2. **TREATMENT OF THE LUMBER:**

    a. All concealed lumber shall be sprayed with anti- fungi.
    b. Surface in contact with masonry and concrete shall be coated with creosote or equivalent.

3. **DOOR SASHES:** All door sashes shall be well seasoned, flush type or semi hollow core or solid core, plywood veneers on both sides. Exterior doors shall be of kiln dried panel doors.
4. **KIND OF TIMBER:** All unexposed timber for framing shall be of mahogany, Iroko, or Sapele. All window and door jambs shall be of mahogany, Iroko or sapele. Balcony railings, flooring, girder and joints shall be mbete. All interior flooring shall be of kiln dried T and G Mahogany. Living room wood panels at the second floor shall be of plywood. Eaves shall be of kiln dried T and G white wood or Bac Alu. Exterior sidings shall be seasoned sun dried V-cut white wood or Bac Alu.

13.2 WORKMANSHIP:

1. Execute rough carpentry in best, substantial, workman like manner. Erect framing true to levels and dimensions, squared, aligned, plumbed, well sliced and nailed and adequately braced properly fitted using mortise and tenon joints.
2. Millwork – accurately mill to details, clean cut moldings profiles, lines, scrape, and smooth; mortise, tenon splice, join, clock, ail crew, bolt together, as approved. Do not install mill work and case until concrete and masonry work have been cured and will not release moisture harmful to wood work.
3. Secure work to ground, otherwise fasten in position to hold correct surfaces, lines and levels. Make finished work flat, plumb, true.

Article 14 ARCHITECTURAL FINISHES SCHEDULE:

14.1 FLOORING

1. All interior flooring shall be cemented
2. Toilet floors shall also be cemented/ tiled
3. *Terrace floors shall be cemented.*

14.2 WALLING:

1. All interior partitions shall be of 15cm thick block wall or as on the working drawings.
2. *Exterior walling shall be 15cm thick block work.*
3. Walls shall be plastered and given a good finish.

14.3 CEILINGS

1. All interior ceiling shall be neatly finished in 4mm plywood.
2. Outside ceiling eaves shall be of plain aluminum sheet, with air Vents covered with screen.

14.4 DOORS

All doors shall conform to standard production and finishing and with prior acceptance.

1. All wooden doors shall be hard core flushed door using hard wood.
2. All toilet doors shall have one side using waterproofed plywood facing inside. Bring float coat to flush with screed or temporary guide strips placed to true and even surface at proper distance from the tile finished face.
3. Setting wall tiles: soak wall tiles thoroughly in clean water before setting. Set wall tile by trowel ling neat Portland cement skim coat on the float coat or apply skim coat to back of each tile unit. Immediately float tile in place. Make joints straight, level and perpendicular. Maintain vertical joints plumb.
4. Grouting: Grout joints in wall tile with neat white cement immediately after suitable area of tile has been set. Tool joints slightly concave, cut excess mortar and wipe from tile face. Roughen interstices of depressions in mortar joints after grout has been cleaned from surface. Make joints between wall tile, plumbing and other built in fixtures with light colour caulking. Immediately after grout has had its initial set, give tile wall surfaces protective coat of non-corrosive soap.
5. All exterior doors shall be solid panel / metal doors sa per the bill of quantities.

14.5 WINDOWS

1. All windows shall be wood casement.
2. Other windows as indicated in the plan shall be glass jalousie.
3. Glass and glazing: all windows shall be glazed on the outside with steel casement putty, glass shall be puttied and face-puttied in a neat trim line manner, with steel glazing chips.
4. Provide louvers below the ceiling and wall partition of bedrooms without exterior window access.

14.6 FINISHING HARDWARE

1. ***Butt hinges:*** *unless otherwise approved, use brass, polished and finely finished, mortise ball bearing 5 knuckles, non rising loose pins, Use one and one-half airs (3) pieces of hinges per leaf of doors more than 1.80m high, loose pin butt for room doors, fixed pin butt for closet.*
2. **Keying and Keys:** Locks shall be keyed in sets and sub sets to provide maximum expansion. All sets shall be grand master keyed, and all entrance locks shall be great grand mastered keyed per unit.

14.7 RIM BOLTS:

Rim bolts and keeper shall be chrome finished

14.8 DOOR BUMPERS:
Where wooden doors shall strike an object during opening provide door bumper.

14.9 **Cabinet hinges** shall be "Washington" type or piano hinges heavily chrome or nickel-plated.
14.10 Cabinet and closet catches shall be plastic roller types.
14.11 Provide yale door closers for all swing exterior doors (pivoted).
14.12 Provide heavy-duty head and foot bolt for the main entrance doors.

Article 15 ROOFING

15.1 MATERIALS;
ROOF SHEATHING:
Shall be tole bac(6/10) or corrugated 6m zinc of the same gauge.

15.2 INSTALLATION WORKMANSHIP:
Sheathing – layout the sheets in a manner that the side over lap faces away from the prevailing wind. Provide adequate overlap on ends. Secure the roofingsheets to purlins by using the appropriate fixings.

Article 16 PLUMBING WORKS:

16.1 GENERAL:
All work shall be done under the direct supervision of a licensed plumber and in strict accordance with the specification and of the methods as prescribed by the local authorities.

16.2 MATERIALS:

Diameters of evacuation tube to be used in fitting.

Wash hand basin.....	32mm
Vitrified porcelain urinals.....	40mm
Pool baths.....	40mm
Taps.....	32mm
Showers.....	40mm
Toilet seats.....	100mm
Collection & canalization of rain water.....	100/125/200mm

16.3 ALTERNATE MATERIALS:
1. Alternate material allowed, provide such alternatives as approved by architect such as PVC pipes for sewer and drainage pipes.

2. Each length of pipe, fitting, fixture and device used in plumbing system shall have cast, stamped or indelibly marked on it, manufacturer's trademark.

16.4 INSTALLATION:

1. *Install plumbing fixtures as indicated on drawing, furnishings all bracket, cleats clip plates and anchors required to support fixtures rigidly in place.*
2. Install all fixtures and accessories in locations directed in accordance with the manufacturer's instructions, minimizing pipe fittings.
    a. Protect items with approval means to maintain perfect conditions. Remove work damaged or defective and replace with perfect work without extra cost to client.
3. ALL PVC soil and drainage pips shall have a minimum slope of 1%.
4. Vertical pipes shall be secured strongly by hooks to building framing. Provide suitable bracket or chairs at the floors from which they start. Where an end or circuit vent pipe from any fixtures or line of fixtures is connected to a vent line serving other fixtures, connection shall be at least 1.20m above floor on which fixtures are located, to prevent use of any vent line as a waste. Horizontal pipes shall be supported by well-secured straphangers.

16.5 ROUH-IN

1. Provide correctly located openings of proper sizes where required in walls and floors for passage of pipes.
2. All items to be embedded in concrete shall be thoroughly clean and free from all rust, scale and paint.
3. **All changes in pipe sizes on soil wash and drain lines shall be provided with reducing fittings or recess reducers.**
4. Plumber shall take high corrosive nature ground within site into recount. Protective features shall be installed to prevent corrosion of all water pipes installed underground.
5. Extend piping to all fixtures, outlets and equipment, from gate valves installed in the branch near the riser.
6. All pipes shall be cut accurately to measurements, and worked into place without springing or forcing.
7. Care shall be taken as not to weaken structural portions of the building.

Article 17 ELECTRICAL WORKS

17.1 SCOPE OF WORK:

1. The work consist of furnishing of all materials and labour, tolls and equipment and all necessary services to complete the electrical work ready for operation as shown in the drawings and specified as follows:
    a. Supply and installation of the main and sub-feeders from electrical panel boards up to service entrance.
    b. Supply and installation of electrical panel boards, gutters, pull box and accessories box as required.

c. Supply of wiring devices porcelain receptacles, outlets, switches etc. complete with suitable cover plates as per specifications.
d. Supply and installation for all branch feeders circuits from panel boards up to all outlets, switches, controls other loads; wiring as shown in plan.
e. Installation of all owners furnished material such as lighting fixtures and electrical control.
f. Grounding system as per EE Code requirements.
g. The contractor shall secure and pay for all electrical installation fees and permits, as well as the necessary deposit.

17.2 CODES AND REGULATIONS:

The electrical work shall be done in accordance with all the requirements from the latest issue Cameroon Electrical codes, with rules and regulations and ordinances of the local enforcing authorities and Requirements of the ENEO Company and as otherwise stated.

17.3 DRAWINGS AND SPECIFICATION:

1. All installation shall be done in a workmanlike manner and include all necessary works that may not be clearly indicated in the plans or schematic but necessary to attain the purpose or intent of the design scheme.
2. The plan indicating the general lay out of the system and the location of outlets are diagrammatic, and may be adjusted as required by the Architect before installation.
3. The contractor shall record all accomplishments as work progresses in a set of records plan. Three (3) sets of drawing duly signed and sealed by the supervisor-in-charge of construction shall be submitted for the owners and Architect's references and maintenance purposes

17.4 MATERIALS AND WORKMANSHIP:

All materials to be supplied shall be new and of high quality. Materials shall be standard products from reputable manufactures.

17.5 TECHNICAL SPECIFICATIONS:

1. Power service 220 volts, single phase, and 3 wire solid neutral 50 hertz.
2. **Wiring methods:** All powers and control wiring shall be in rigid mild steel conductor.
3. **Grounding:** .Panel boards, race ways, gutters, metallic conduits and other non-current carrying metal parts of equipment, heaters, motor frames, shall be provided with effective grounding connection to a grounded cold centre pipe.
4. **Main and branch feeders:**
   Conductors and complete conduit systems shall be provided as shown in drawings and no change, in sizes shall be made without approval by the Architect or his authorized representative.
5. **Panel Board:**

Furnish and installs the electrical panel-boards as shown in plan.

6. **Receptacles switches**: Outlets:
   a. Provide as indicated in drawing, the switches and receptacles with proper cover plates. Switches shall be of the quiet-matic type, or approved equal.
   b. Receptacles shall be duplex with proper cover plates rated 10amp. Min 220V.
   c. Lighting outlets at ceiling shall be provided with 100mm octagonal box. Connection from fixture to boxes be made by using TW wire CHB in flexible conduit.

7. **LIGHT FIXTURES:**
   a. All lighting fixtures shall be furnished and installed by the contractor. Detail of fixture design when not standard shall be shown in the Architectural Drawings.
   b. Fluorescent fixtures shall be complete set with lamps and ballast of high quality, Philips G.C.phallic or approved equal.
8. **WIRES AND CABLES:**
   a. No wires shall be drawn into a raceway until it is complete with all necessary fittings, boxes supports. Connections shall be securely fastened such as not to loosen under vibration and normal strain. All connections, spices shall be made with approved methods.

Article 18 PAINTING WORK:

18.1 SCOPE OF WORK.

1. Consists of furnishing all items, articles, materials, tools, equipment, labour scaffolding, ladders, methods and other incidentals necessary and required for the satisfactory complete painting and finishing of wood, plasters, concrete, metal or other surfaces exterior or interior of building.

18.2 GENERAL PAINTING and surface Finishing shall be interpreted to mean and include sealers, primers, fillers, intermediate and finish coats, emulsions, varnish, shellac, stain or enamels.

1. All paint and accessory materials incorporated in or forming a part there of shall be subject to the prior approval and selection for colour, tint, finish or shade by the Architect.
2. In connection with the Architect's determination of colour or tint of any particular surface, the depth of any colour or tint selected or required shall in no instance be a subject for an additional cost to the owner.
3. Painting of all surfaces, except as otherwise specified shall be a three (3) coat work, one primer one a finish coat.

18.3 MATERIALS:

1. All paint materials shall meet the requirements of paint materials under classification" A'' found in the market.
2. All paint shall be recommended by the manufacturer of the use intended and shall be delivered to the job site in original containers with seals unbroken and labels intact.
3. Painting materials such as linseed oil, turpentine, thinners, shellac, lacquer, etc. shall be pure and of the highest quality obtainable and shall bear the manufacturer's label on each container or package.
4. Except for ready mixed materials in original containers, all mixing shall be done in the job site. No materials are to be reduced, changed or mixed except as specified by manufacturer of said materials.

5. Storage and paint protection: The resident Architect shall designate a place for the storage of paint materials. Whenever it may be necessary to change this designated storage place, the contractor shall promptly move to the new location. The storage space shall be adequate and protected from damage and paint. Paint shall be covered at all times and safeguards taken to prevent fire.

18.4 PRECAUTIONS:

1. All surfaces to be painted shall be examined carefully before beginning any work to see that all work of other trades or subcontractors are installed in workmanlike condition to receive paint, stain or particular finish.
2. Before proceeding with any painting or finishing, thoroughly clean, sand, and seal if necessary by removing from all surfaces all dust, dirt, grease, or other foreign substances which would affect either the satisfactory execution or permanency of the work. Such cleaning shall be done after the general cleaning executed under the separate division of the work.
3. No work shall be done under conditions that are unsuitable for the production of good results, not at any time when plastering is in progress or is being cured, or not dry.
4. Only skilled painters shall be employed to work. All workmanship shall be executed in accordance with the best acceptable practices.
5. Finish hardware, lighting fixtures, plates and other similar items shall be removed by workmen skilled in these trades, or otherwise protected during painting operations and repositioned upon completion of each space.
6. Neither paint nor any other finish treatment shall be applied over wet or damp surfaces. Allow at least two (2) days for drying proceeding coat before applying succeeding coat.
7. Begin work only when resident Architect has inspected and approved prepared surface otherwise no credit for coat applied shall be given. The contractor shall assume responsibility to redcoat work in question. Notify Architect when particular coat applied is complete, ready for inspection and approval.

18.5 PREPARATION OF SURFACES:

1. Tint plaster priming coat to approximate shade of final coat. Touch up sanction spots in plaster or cement after first coat application, before applying second coat, to produce even result in finish coat. Secure colour schedules for rooms before priming walls.
2. In cases of presence of high alkali conditions, neutralize surfaces by washing with zinc sulphate solution, dry thoroughly, brush free of crystals before priming.
3. Prime with mixture of cement paint and 5344 improved Alkali proof seal or its equivalent as may be approved by the Architect.
4. Brush one or more finish coats of paint thinned if necessary with mineral spirits or turpentine.

18.6 WOODWORK TO BE PAINTED:

1. Touch up knots, pitch, streaks, sappy spots with shella.
2. Do necessary putting of nails holes, cracks etc. after first coat with putty of colour to match that of finish. Bring putty with adjoining surface neat, workmanlike manner.
3. Wipe paste wood fillers, applied in open grain wood, when "set", across wood grain, then with grain to secure clean surface.
4. Cover surface to be stained with uniform stain coat.
5. Thin undercoats of paint and enamel to same or approximate shade
6. Sand smooth woodwork to be finished with enamel or varnish; clean surface before proceeding with first coat application. Use fine sand paper between coats on enamel or varnish finish applied to wood to produce even smooth finish.

18.7 VARNISHING:

1. Sand wood surfaces with cloth fine grade sand paper.
2. Wipe dust off with clean cloth dampened with lacquer tinner.
3. Apply wood filler as per manufacturer's specifications.
4. Apply approved stain in uniform coats until desired shade is achieved.
5. Apply finish coat as per manufacturer's specifications.

Article 19 FIRE CODE REQUIREMENT

All interior wooden structures shall be applied with resist. A- Flame Fire Retardant solution applied as per manufacturer's specification. All other requirement as of the local fire code as far as they relate to this project shall likewise be complied with.

Article 20 FIRE RETARDATION TREATMENTS

20.1 SCOPE OF WORK.

1. The fire Retardant Applicator shall provide all materials, labour, tools, equipment and all facilities for the satisfactory and effective treatment with fire retardant solution or paint for the wooden components of the said project.

20.2 General conditions:

1. The fire retardation under this item refers to the treatment of all wood, plywood, woodwork, acoustical exterior with proven fire retardant chemical having class A or B Flame spread Rating such as the "Resist – A- Flame'' fire retardant or approved equal.
2. Studs, Trusses and other interior wooden component must be treated with fire Retardant chemical before panelling are installed.
3. When colourless fire retardant chemicals are applied, treatment must be done before painting on both sides of the plywood. Care in the application must be meticulously observed in such a way that saturation and maximum penetration shall be achieved.

20.3 APPLICATION:

1. **PREPARATION:**
   Remove all loss dirt, and other foreign matters from the surfaces to be *treated. Nail heads must be countersunk to clear the surface. Cooking within the area is prohibited; flammable materials be removed from the area; all workers be notified to avoid smoking and /or burning inside the building. Other precautions must be strictly observed in order to prevent destructive fire in the area. All workers in the area must realize that the fire retardant chemical is flammable especially when it is newly applied.*

2. **APPLICATION:**

   Fire Retardant chemicals must be applied by the Fire Retardant Applicator duly authorized by the fire retardant chemical manufacturer/blender and certified by the fire code implementing agencies. The applicator and/or his men must follow good painting practices using paint brush, spray or rollers. They must conform with the following rate of application.

   a. All wooden doors and stairs shall be treated with fire retardant at the rate of $3m^2$ per gallon for class A flame spread Rating or the three (3) coatings.
   b. All ceiling boards, paneling and all wooden structures of the building that are found along corridors, lobbies and kitchen shall be treated at the rate of $13.5m^2$ per gallon or two (2) coating.

c. All interior paneling, ceiling, floors, closets, cabinets and all other wooden components found in the interiors of a building shall be treated with fire retardant chemicals at the rate of 18.6m. I gallon or one coat.
d. All other exterior wooden based component of the building such as sidings, fascia boards, eaves, etc. shall be treated with fire retardant at the rate of 13.5m² per gallon or two (2) coatings.

20.4 GUARANTEE:

1. The APPLICATOR shall and hereby warrants that all fire retardation work executed under this section shall be free from defects of materials and workmanship for a period of five (5) years from the date of completion of application
2. The APPLICATOR further agrees that he will at his own expense repair and replace all such defective work and all other works damaged thereby which becomes defective during the term of this warranty

20.5 CERTIFICATIONS:

➢ The APPLICATOR issues a certification of contract executed by and between him and other owner/contractor of the building which certification attests to the existence of a program for the application of fire retardant on the building during construction.

20.6 WORKS EVALUATION

The unit prices quoted by the Contractor are defined underprice determination and works evaluation

PRICE DETERMINATION AND WORKS EVALUATION

The unit price shall be determined in the price schedule as submitted and accepted.

The Contractor shall be paid for work done on the basis of the price schedule corresponding to the quantity of work evaluated against the unit price schedule.

Where it is observed that there are additional works whose unit prices are not determined in the price schedule, the Project Manager shall reserve the right to apply his reference unit prices.

The contractor shall be bound to ensure a continuous flow of traffic on his works site and especially during the rainy season without claiming any specific remuneration until provisional acceptance of the works has been given. However the site records will be called up as need arises.

SPECIAL TECHNICAL CLAUSESES (CCTP)

MODERN SLAUGHTER HOUSE AND FEED MILLS,

Plants: premises, buildings, facilities, equipment and utensils

PREMISES.

(a) The premises shall be kept in a clean and orderly condition, and shall be free from strong or foul odors, smoke, or excessive air pollution. Construction and maintenance of driveways and adjacent plant traffic areas should be of cement, asphalt, or similar material to keep dust and mud to a minimum.

(b) Surroundings. The immediate surroundings shall be free from refuse, rubbish, overgrown vegetation, and waste materials to prevent harborage of rodents, insects and other vermin.

(c) Drainage. A suitable drainage system shall be provided which will allow rapid drainage of all water from plant buildings and driveways, including surface water around the plant and on the premises and all such water shall be disposed of in such a manner as to prevent an environmental or health hazard. This is for particular attention during external works.

BUILDINGS.

The building or buildings shall be of sound construction and shall be kept in good repair to prevent the entrance or harboring of rodents, birds, insects, vermin, dogs, and cats. All service pipe and openings on the external walls shall be effectively sealed around the opening or provided with tight metal collars.

(a) EXTERNAL DOORS, WINDOWS, OPENINGS, ETC.

All framing to openings shall be in non corrosive metal so prepared to receive glass screen. All openings to the outer air including doors, windows, skylights and transoms shall be effectively protected or screened against the entrance of flies and other insects, rodents, birds, dust and dirt. All outside doors opening into processing rooms shall be in good condition and fit properly. All hinged, outside screen doors shall open outward. All doors and windows should be kept clean and in good repair. Outside conveyor openings and other special-type outside openings shall be effectively protected to prevent the entrance of flies and rodents, by the use of doors, screens, flaps, fans or tunnels. Outside openings for sanitary pipelines shall be covered when not in use. On new construction window sills should be slanted downward at approximately a 45^0 angle.

(b) WALLS, CEILINGS, PARTITIONS AND POSTS.

The walls, ceilings, partitions, and posts of rooms in which milk, or dairy products are processed, manufactured, handled, packaged or stored (except dry storage of packaged finished products and supplies) or in which utensils are washed and stored, shall be smoothly finished with a suitable material of light color, which is substantially impervious to moisture and kept clean. They shall be refinished as often as necessary to maintain a neat, clean surface. For easier cleaning new construction should have rounded cove at the juncture of the wall and floor in all receiving, pasteurizing, manufacturing, packaging and storage rooms.

c. All interior paneling, ceiling, floors, closets, cabinets and all other wooden components found in the interiors of a building shall be treated with fire retardant chemicals at the rate of 18.6m. I gallon or one coat.
d. All other exterior wooden based component of the building such as sidings, fascia boards, eaves, etc. shall be treated with fire retardant at the rate of 13.5m² per gallon or two (2) coatings.

20.4 GUARANTEE:

1. The APPLICATOR shall and hereby warrants that all fire retardation work executed under this section shall be free from defects of materials and workmanship for a period of five (5) years from the date of completion of application
2. The APPLICATOR further agrees that he will at his own expense repair and replace all such defective work and all other works damaged thereby which becomes defective during the term of this warranty

20.5 CERTIFICATIONS:

➢ The APPLICATOR issues a certification of contract executed by and between him and other owner/contractor of the building which certification attests to the existence of a program for the application of fire retardant on the building during construction.

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(c) Drainage. A suitable drainage system shall be provided which will allow rapid drainage of all water from plant buildings and driveways, including surface water around the plant and on the premises and all such water shall be disposed of in such a manner as to prevent an environmental or health hazard. This is for particular attention during external works.

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(a) EXTERNAL DOORS, WINDOWS, OPENINGS, ETC.

All framing to openings shall be in non corrosive metal so prepared to receive glass screen. All openings to the outer air including doors, windows, skylights and transoms shall be effectively protected or screened against the entrance of flies and other insects, rodents, birds, dust and dirt. All outside doors opening into processing rooms shall be in good condition and fit properly. All hinged, outside screen doors shall open outward. All doors and windows should be kept clean and in good repair. Outside conveyor openings and other special-type outside openings shall be effectively protected to prevent the entrance of flies and rodents, by the use of doors, screens, flaps, fans or tunnels. Outside openings for sanitary pipelines shall be covered when not in use. On new construction window sills should be slanted downward at approximately a 45^0 angle.

(b) WALLS, CEILINGS, PARTITIONS AND POSTS.

The walls, ceilings, partitions, and posts of rooms in which milk, or dairy products are processed, manufactured, handled, packaged or stored (except dry storage of packaged finished products and supplies) or in which utensils are washed and stored, shall be smoothly finished with a suitable material of light color, which is substantially impervious to moisture and kept clean. They shall be refinished as often as necessary to maintain a neat, clean surface. For easier cleaning new construction should have rounded cove at the juncture of the wall and floor in all receiving, pasteurizing, manufacturing, packaging and storage rooms.

(c) **FLOORS.**

The floors of all rooms in which milk, or dairy products are processed, manufactured, packaged or stored or in which utensils are washed shall be constructed of tile properly laid with impervious joints (so much as to avoid cracks) material, concrete, or other equally impervious material. The floors shall be smooth, kept in good repair, graded so that there will be no pools of standing water or milk products after flushing, and all openings to the drains shall be equipped with traps properly constructed and kept in good repair. On new construction, bell and standpipe type traps shall not be used. The plumbing shall be so installed as to prevent the back-up of sewage into the drain lines and to the floor of the plant. Cold storage rooms used for storage of product and starter rooms need not be provided with floor drains if the floor is sloped to drain to an exit. Sound, smooth, wood floors which can be kept clean, may be used in rooms where new containers and supplies and certain packaged finished products are stored.

(d) **LIGHTING AND VENTILATION.**

(1) Light shall be ample, natural or artificial, or both, of good quality and well distributed. All rooms in which dairy products are manufactured or packaged or where utensils are washed shall have at least 30 foot-candles of light intensity on all working surfaces. Rooms where dairy products are graded or examined for condition and quality shall have at least 50 foot-candles of light intensity on the working surface.

Restrooms and locker rooms should have at least 30 foot-candles of light intensity. In all other rooms there shall be provided at least 5 foot-candles of light intensity when measured at a distance of 30 inches from the floor. Where contamination of product by broken glass is possible, light bulbs and fluorescent tubes shall be protected against breakage.

(2) There shall be adequate heating, ventilation or air conditioning for all rooms and compartments to permit maintenance of sanitary conditions. Exhaust or inlet fans, vents, hoods or temperature and humidity control equipment shall be provided where and when needed, to minimize or control room temperatures, eliminate objectionable odors, and aid in prevention of moisture condensation and mold. Inlet fans should be provided with an adequate air filtering device to eliminate dirt and dust from the incoming air. Ventilation systems shall be cleaned periodically as needed and maintained in good repair. Exhaust outlets shall be screened or provided with self-closing louvers to prevent the entrance of insects when not in use.

(e) **ROOMS AND COMPARTMENTS.**

Rooms and compartments in which any raw material, packaging, ingredient supplies or dairy products are handled, manufactured, packaged or stored shall be so designed, constructed and maintained as to assure desirable room temperatures and clean and orderly operating conditions free from objectionable odors and vapors. Enclosed bulk milk receiving rooms, when present, shall be separated from the processing rooms by a wall. Rooms for receiving can milk shall be separated from the processing rooms by

a partition or by suitable arrangement of equipment. Processing rooms shall be kept free from equipment and materials not regularly used.

(1) COOLERS AND FREEZERS.

Coolers and freezers where dairy products are stored shall be clean, reasonably dry and maintained at the proper uniform temperature and humidity to adequately protect the product, and minimize the growth of mold. Adequate circulation of air shall be maintained at all times. They shall be free from rodents, insects, and pests. Shelves shall be kept clean and dry. Refrigeration units shall have provisions for collecting and disposing of condensate.

(2) SUPPLY ROOM.

The supply rooms or areas used for the storing of packaging materials; containers, and miscellaneous ingredients shall be kept clean, dry, orderly, free from insects, rodents, and mold, and maintained in good repair. Such items stored therein shall be adequately protected from dust, dirt, or other extraneous material and so arranged on racks, shelves or pallets to permit access to the supplies and cleaning and inspection of the room. Insecticides, rodenticides, cleaning compounds and other nonfood products shall be properly labeled and segregated, and stored in a separate room or cabinet away from milk, dairy products, ingredients or packaging supplies.

(3) BOILER ROOMS, SHOP ROOMS AND SHOP AREAS.

The boiler, and shop rooms shall be equipped and powered as such and separated from other rooms processed, manufactured, Shop rooms or areas should be kept orderly and reasonably free from dust and dirt.

(4) TOILET AND DRESSING ROOMS.

Adequate toilet and dressing room facilities shall be conveniently located. (i) Toilet rooms shall not open directly into any room in which milk or dairy products are processed, manufactured, packaged or stored; doors shall be self-closing; ventilation shall be provided by mechanical means to the outer air; fixtures shall be kept clean and in good repair. (ii) All employees shall be furnished with a locker or other suitable facility and the lockers and dressing rooms shall be kept clean and orderly. Adequate hand washing facilities shall be provided. Legible signs shall be posted conspicuously in each toilet or dressing room directing employees to wash their hands before returning to work.

(5) LABORATORY.

Consistent with the size and type of plant and the volume of dairy products manufactured, an adequately equipped laboratory shall be maintained and properly staffed with qualified and trained personnel for quality control and analytical testing. The laboratory should be located reasonably close to the processing activity and be of sufficient size to perform tests necessary in evaluating the quality of raw and finished products.

(6) STARTER FACILITIES.
Adequate facilities shall be provided for the handling of starter cultures. The facilities shall not be located near areas where contamination is likely to occur.

(7) GRADING AND INSPECTION ROOM.
When grading or inspection of product is performed the plans shall so indicate such area specifically for this purpose. The room or area shall be suitably located, sufficient in size, well lighted, and ventilated. It shall be kept clean and dry, free from foreign odors and reasonably free from disturbing elements which would interfere with proper concentration by the grader or inspector. The grading or inspection room or area shall be equipped with a table or desk and convenient facilities for washing hands.
(8) Resident inspector's facilities. In resident plants, an office or space shall be provided for official purposes. The room or space should be conveniently located in or near the approved laboratory, adequate in size, and equipped with desk and a lockable storage supply cabinet, and clothes locker. It shall be well lighted, ventilated or air conditioned, and heated.
(9) Lunch rooms and eating areas. When these areas are provided, they (i) shall be kept clean and orderly, (ii) should not open directly into any room in which milk or dairy products are processed, manufactured or packaged, and (iii) signs shall be posted directing employees to wash their hands before returning to work.

FACILITIES.
(a) Water supply. There shall be an ample supply of both hot and cold water of safe and sanitary quality, with adequate facilities for its proper distribution throughout the plant, and protected against contamination. Water from other facilities, when officially approved, may be used for boiler feed water and condenser water provided that such water lines are completely separated from the water lines carrying the sanitary water supply, and the equipment is so constructed and controlled as to preclude contamination of product contact surfaces. There shall be no cross connection between potable water lines and non-potable water lines or between public and private water supplies. Bacteriological examinations shall be made of the plant's sanitary water supply taken at the plant at least twice a year, or as often as necessary to determine safety and suitability as related to product keeping quality for use in manufactured products shall be made by a State agency laboratory except for supplies that are regularly tested for purity and bacteriological quality, and approved by the local health officer. The results of all water tests shall be kept on file at the plant for which the test was performed.
The location, construction, and operation of any well shall comply with regulations of the appropriate agency.

(b) DRINKING-WATER FACILITIES.
Drinking-water facilities of a sanitary type shall be provided in the plant and should be conveniently located.

(C) HAND-WASHING FACILITIES.
Convenient hand-washing facilities shall be provided, including hot and cold running water, soap or other detergents, and sanitary single service towels or air driers. Such accommodations shall be located in or adjacent to toilet and dressing rooms and also at such other places in the plant as may be essential to the cleanliness of all personnel handling products. Vats for washing equipment or utensils shall not be used as hand-washing facilities. Containers shall be provided for used towels and other wastes. The containers may be metal or plastic, disposable or reusable and should have self-closing covers.

(d) STEAM.
Steam shall be supplied in sufficient volume and pressure for satisfactory operation of each applicable piece of equipment. Culinary steam used in direct contact with milk or dairy products shall be free from harmful substances or extraneous material and safe boiler water additives, or a secondary steam generator shall be used in which soft water is converted to steam and no boiler compounds are used. Steam traps, strainers and condensate traps shall be used wherever applicable to insure a satisfactory and safe steam supply.

(e) DISPOSAL OF WASTES.
Dairy wastes shall be properly disposed of from the plant and premises consistent with requirements imposed by the Ministry in charge of environmental protection. The sewer system shall have sufficient slope and capacity to readily remove all waste from the various processing operations. Where a public sewer is not available, all wastes shall be properly disposed of so as not to contaminate milk equipment or to create a nuisance or public health hazard. Containers used for the collection and holding of wastes shall be constructed of metal, plastic, or other equally impervious material and kept covered with tight fitting lids. Waste shall be stored in an area or room in a manner to protect it from flies and vermin. Solid wastes shall be disposed of regularly and the containers cleaned before reuse. Accumulation of dry waste paper and cardboard shall be kept to a minimum and disposed of in a manner that is environmentally acceptable.

SPECIAL TECHNICAL CLAUSES CONCRETE TANKS

TECHNICAL SPECIFICATIONS FOR THE CONSTRUCTION OF REINFORCE CONCRETE TANKS FOR THE FISH FARMING CENTER.

INTRODUCTION:

This specification aims to define the mode of execution of work to be done following the norms and approved standards, according to the documents of the Contract.

The choice of technological options for achieving the proposed work has the sole concern to ensure a better functionality of facilities in compliance with safety rules.

It has been established as a guide to clarify and supplement the guidance of the estimate and drawings notwithstanding the terms of the Contract.

The technical specifications presented herein below define the waterworks that shall be executed in the framework of LIFIDEP project in the North West Region and the manner in which these works shall be carried out. So the Contractor is expected to read these specifications critically and identify all the articles that are applicable to his job.

CHAPTER 1: GENERAL INFORMATION

Article 1: VOLUME OF WORK TO BE EXECUTED.

In each case, the volume of work to be executed is indicated by the bill of quantities, network maps and/or plans provided for each project. The various works to be executed shall conform to the relevant terms of the technical specifications given herein below.

Article 2: GENERAL INSTRUCTIONS

It should be understood that the provision of a bill of quantities for any project does not absolve the potential Contractor of the necessity to affect a well-planned site visit, at his own expense, to gain complete knowledge of the conditions prevailing on the terrain. This knowledge shall come in handy when preparing the List of Tasks and the Unit Price Schedule. Potential Contractors (or Bidders) shall provide a detailed and sequenced List of Tasks to be effected on each component of the project. Within fifteen (15) days from the date of notification to start work, the Contractor shall provide the Supervising Engineer with:

- A detailed plan of the work, showing the scheduling of the various works to be executed in time.
- Detailed technical drawing of the works to be realized.
- A manpower deployment plan.
- A schedule of the delivery of materials to the project site, showing possible delays.
- Failure to forward the foregoing documents shall engender the postponement of the reception of project materials, which could result in a punishable overall delay in the execution of the project.

No material shall be used that has not been checked for conformity with the technical specifications by the Supervising Engineer.

The Supervising Engineer reserves the right to modify the plans and Work schedule provided by the Contractor, which modification shall first be submitted to the Delegated Contracting Authority for approval. Under exceptional circumstances, the Supervising Engineer may suggest modifications to the technical specifications for any component of a project to the Delegated Contracting Authority, while making sure that the overall cost of the project stays within the limits of the financial bid of the Contractor.

Any modification must be done in writing, with sufficient justification. For this purpose, a numbered page book (the project log book) shall be kept on site in which the Supervising Engineer shall write his approved instructions. Both the Contractor, or his representative, and the Supervising Engineer shall initial every page of the project logbook.

It is therefore obligatory for the Contractor to execute the works in conformity with:

- The Bills of Quantities and Estimates,
- The Special Administrative Clauses
- The Special Technical Clauses stated herein,
- Any other special rules and regulations that may be applicable to his job,
- The work schedule,
- The detailed technical drawings,

Subject to any approved modifications indicated in the project log book by the Supervising Engineer.

The Contractor shall take note of any omission or discrepancies that may exist in the three documents mentioned in the preceding paragraph, which omission or discrepancies could fundamentally affect the technical or aesthetic quality of the works executed to his detriment, and call the attention of the Supervisory Engineer who shall remain at his disposal of the Contractor for necessary information and inquiries through the duration of the project.

In this regard, the Contractor shall not absolve himself of the responsibility for poor quality work by citing imprecision, omissions or discrepancies in the technical specifications or modifications thereof indicated in the project log book by the Supervising Engineer.

Any works effected without regard for the foregoing instructions or provisions shall be demolished at the expense of the Contractor

CHAPTER II: ORIGIN AND QUALITY OF GEOMATERIALS AND CEMENT

Article 3: QUALITY AND QUANTITY OF GEOMATERIALS

The Contractor shall supply all the sand, stones and gravel that may be required for the execution of any component of a project. He shall also be responsible for the excavation and backfilling of the pipeline under the supervision of the Engineer. In that regard, it is obligatory for the potential Contractor (or bidder) to visit the project site, at his own expense, before preparing his bids, in order to verify whether available geo-material are of good quality and of sufficient quantity. He shall make any reservations concerning geo-materials in his bid (Site Visit Report).

Article 4: ORIGIN AND QUALITY OF SAND

The nature and origin of sand remain subject to the approval of the Supervising Engineer. Sand shall be obtained either from rivers or through crushing of rocks. The sand shall be of high quality. It shall be crunchy, stable, and clean and shall be free of dust particles, schistose, gypsums or clayey debris and organic matter. It shall contain neither Sulphur compounds nor substances that can react with cement or metallic reinforcements. The sand component shall be more than 80% and the very fine constituents, with a dimension not exceeding eighty (80) microns that can be eliminated by settling, should be less than four percent (4%). No grain of sand should have a dimension greater than four (4) millimeters. If

deemed necessary by the Supervising Engineer, the sand shall be sieved and washed thoroughly before use.

Moreover, filter grade sand shall have a grain size ranging from 0.8mm to 1.2mm inclusive. Furthermore, it shall be fried in order to eliminate algae zygospores, bacteria and/or bacteria spores, fungi and/or fungal hyphae.

Article 5: ORIGIN AND QUALITY OF GRAVEL.

Gravel shall be obtained from deposits or quarries chosen by the contractor and approved by the Supervising Engineer. It shall be clean, without an excess of flat elongated pieces, dust or impurities. Constituents that can be eliminated through settling should be less than 2%.Its grading should be suited to its use. If deemed necessary by the Supervising Engineer, it shall be washed before use.

Article 6: ORIGIN AND QUALITY OF STONES

Stones shall be obtained from deposits or quarries chosen by the Contractor and approved by the Supervising Engineer. No stone shall have a dimension less than twenty (20) centimeters. Basalts stones, commonly called black stones, are highly recommended, or else stones of other quality, such as un-weathered granites, rhyolites, ignimbrites, etc. duly tested and approved by the Supervising Engineer may also be used.

Article 7: ORIGIN AND QUALITY OF CEMEMT

Cement shall be of the CPA 325 class and shall be obtained from an approved factory.

CHAPTER III: CONCRETE WORKS

Article 8: PREPARATION OF CONCRETE

Concrete works shall be of three (3) kinds:

i) Mass concrete for foundations works; it shall be a mixture of 250kg of cement per m^3 of sand and of appropriate thickness.

ii) Re-enforced concrete for floor, ground beams and chain beams for all demonstration tanks; it shall be a mixture of 350kg of cement per m^3 of sand and shall be of appropriate thickness.

iii) Mass concrete for catchment's works; it shall be a mixture of 400kg of cement per m^3 of sand.

CHAPTER IV: METHOD OF EXECUTION

Article 9: GENERAL INFORMATION

9.1: SECURITY AT THE WORK SITE

The Contractor shall place at the entrance to work site signboards in bold letters indicating that work is underway and prohibiting the public and unauthorized persons from entering the work site. He shall be responsible for any accident that may occur on the work site or may be suffered by a third party, his staff and employees or officials of the Administration as a result of their presence on the work site. Organization of work and security on the work site shall therefore be the sole responsibility of the Contractor. Furthermore, the Contractor shall be bound by the labor legislation in Cameroon Vis-a Vis his workers and the Administration. Moreover, his insurance policy shall cover any damages he could cause to any one during the execution of the job.

9.2: TRAFFIC

The Contractor shall be responsible for ensuring that traffic is not obstructed on the entire stretch of his work site throughout the period of work, right up till provisional reception. No obstruction of traffic shall be allowed for more than two hours. Maintenance of traffic flow shall be the responsibility of the Contractor. In case of any breach of contract in this matter , the Supervising Engineer may bring in a third party to correct any shortcomings that may be impeding the traffic flow, and related expenses shall be borne by the Contractor.

Where interference of the traffic flow for a given period is inevitable, the Supervising Engineer shall be informed of the situation at least 7 days in advance, so that he can seek the opinion of local Administrative authorities and get everything arranged beforehand.

In case a deviation has to be used, the contractor shall submit to the Supervising Engineer for approval after consultation with local administrative authorities, the deviation route and his plan for maintaining the deviation throughout the duration of the works that have necessitated the deviation.

Article 10: STONE MASONRY

Stone masonry shall be aesthetical and in accordance with structure type and civil engineering rules.

Binding mortar shall be a mixture of 400kg of cement per m^3 of sand, no grain of which shall have a dimension exceeding 4mm.

Mortar containing a mixture of 450kg of cement per m^3 of sand shall be used for the finishing of the external joints of non-visible walls of stone masonry

Mortar consisting of a mixture of 500kg of cement per m^3 of sand, to which shall be added a quantity of SILIKA N° 1 recommended by the manufacturer and approved by the Supervising Engineer, shall be used for waterproofing the interior surfaces of water-retaining structures (storage tanks, demonstration tanks, interruption chambers, sedimentation basin, filters, etc.).

Article 11: POINTING AND PLASTERING

11.1 POINTING

The joints of all external walls of stone masonry that are visible shall be carefully pointed to give them an aesthetic look. Mortar containing 600kg of cement per m^3 of sand shall be used for pointing with a cement paste (1:0) finish

11.2 PLASTERING

Plastering of surfaces in contact with water shall comprise pointing of the mortar joints followed by a 1cm thick layer of spatter dash 1:2 (M625). This shall then be followed by the application of a rendering coat of 2cm thick 1:4 (M300) mixtures and a setting coat 2cm thick 1:2 (M625).The walls shall then be finished with cement paste, PREFARABLY WITH 'ENDUIT ETANCHE'. Plastering of surfaces not in contact with water, such as chambers for air valves, control valves and washouts shall consist of 1 coat of plaster 1cm thick and a mixture of 1:3 (M400)

Article 12: PLUMBING WORKS

By plumbing works include:

i. Laying of pipes in the trenches
ii. Construction and installation of chambers for air valves, washouts and control valves
iii. Installation of branch lines right up to the last plastic before the standpipes

12.1 PIPE SPECIFICATIONS

Pipes should meet the physical characteristics presented in table1 below:

Table 1: Physical Characteristics of pipes

Internal Ø &External Ø (mm)	Thickness (mm)			Socket Length (mm)	Nominal service pressure (bars)	Length of pipe (m)
	Minimum	Nominal	Maximum			
21x25	1.9	2.0	2.3	28	10	6
28x32	1.9	2.0	2.3	32	6	6
26.8x32	2.4	2.6	2.9	32	10	6
35x40	2.3	2.5	2.8	40	6	6
33.6x40	3.0	3.2	3.5	40	10	6
43.6x50	3.0	3.2	3.5	50	6	6
42x50	3.7	4.0	4.3	50	10	6
56.6x63	3.0	3.2	3.5	63	6	6
53x63	4.7	5.0	5.4	63	10	6
68.6x75	3.0	3.2	3.5	75	6	6
66.6x75	3.8	4.2	4.5	75	10	6
63.2x75	5.5	5.9	6.3	75	10	6
80.6x90	4.3	4.7	5.0	90	6	6

TOLERANCES

OVALIZATION: ± 1mm

Length of pipe: ± 1% =>±6cm

Socket length: ± 0.6mm

12.1.1 CONTROL TESTS FOR PIPES

i) Length

The tolerance for pipe lengths shall be ± 1% (± 6cm). For every 100 pipes, if the number of pipes not respecting this tolerance is less than 3 i.e. 3%, then the whole lot shall be considered okay, otherwise the Supervising Engineer shall request that as many pipes as possible be tested in the lot.

ii) External Diameter

The tolerance shall be ± 0.3mm for pipes of external diameters between 25mm and 50mm, and ± 0.4mm for pipes between 63mm and 75mm in external diameter. Before reception, the Supervising Engineer shall verify the external diameters of 15 pipes for every 300 pipes. If 6 or more pipes fail to meet the tolerances prescribed above, he shall reserve the right to reject the whole lot. If 5 pipes fail to meet the tolerance stipulated above, 15 other pipes shall be selected at random from the same lot and verified. If the same results are obtained for 5 pipes, the whole lot shall be rejected.

iii) Thickness

Thickness verification should adhere to the specifications presented in table II below.

Table II: Thickness Verification

No. of pipes in the lot	No. of pipes randomly selected for verification	No of bad pipes X	
		Lot accepted if X max =	Lot rejected if Xmin=
100-199	10	2	3
200-299	15	3	4
300-499	20	3	4
500-899	25	5	6
899-1300	30	6	7
1300-3200	40	8	9

The Supervising Engineer shall carry out thickness verification in accordance with table II above

iv) Socket length

The socket length shall be verified according to agreed norms. The value obtained should have the theoretical value of the diameter of the tube plus 1.3mm. The tolerance shall be 0.6mm

v) Shrinkage cracks

Shrinkage cracks tests should be carried out according to agreed methods by the Supervising Engineer on a 15-30cm long sample. No shrinkage cracks should occur if the pipe is at 90° to its horizontal axis. If this occurs for 15 samples representing a lot of 100 pipes, the lot shall be rejected.

vi) Internal Pressure

Pipe samples shall be subjected to 1.5 times the service pressure for duration of one hour. If one out of every five samples ruptures, another set of five shall be selected for retest. If the second set respects the specified relation with the service pressure, the set shall be considered satisfactory. Otherwise, either necessary adjustments shall be carried out to meet the required specifications, or the lot shall be rejected.

vii) Impact Test

This test shall be carried out on three samples, one from each extremity and the third, from the center, all three, one meter long. Perpendicular masses shall be dropped from a height of one meter onto the samples as shown in table III.

Table III: Impact Test Schedule

Pipe diameter	Mass (kg)
25	1
32	1
40	1
50	3.5
63	5
75	7.5
90	7.5

The pipes shall be accepted if, and only if, the percentage of broken pipes in the tested samples does not exceed 40%

viii) Labels

The Contractor shall ensure that all pipes for this project are labeled <LIFIDEP>.The Supervising Engineer shall reject any pipe not labeled as such.

The Contractor shall furnish the Supervising Engineer with information (name, address, phone, etc) on the factory being used to procure pipes for any project.

The Contractor shall present to the Supervising Engineer a guarantee certificate from the factory of origin ascertaining that the pipes meet the required standards as described in the forgoing sections. The Contractor shall arrange for free access to the factory for the Supervising Engineer to enable him request, as required, for all factory tests described in the aforementioned sections to be carried out by the manufacturer.

The performance guarantee of works shall cover all defects in pipes, their handling and workmanship.

FITTINGS SPECIFICATIONS

The fittings required for these works, are presented in Table IV below. Contractors are required to strictly respect these specifications.

All fittings shall be approved by the Supervising Engineer before use. All fittings not conforming to those specified in Table V shall be rejected. The performance guarantee of work shall cover all defects in fittings, their handling and workmanship.

TABLE V: SPECIFICATIONS FOR FITTINGS

Description of Goods
ADAPTOR UNION 25-¾"
ADAPTOR UNION 32-1"
ADAPTOR UNION 40-1 ¼"
ADAPTOR UNION 50-1 -½"
ADAPTOR UNION 63-2"
ADAPTOR UNION 75-2½"
AIR VALVES
BALL VALVE 1 ½"
BALL VALVE 2"
DEC VALVE 0¾"
DEC VALVE 1 ¼"
DEC VALVE 1½"
DEC VALVE 2"
DEC VALVE 2½"
ELBOW 0¾"
ELBOW 1 ¼"
ELBOW 1 ½"
ELBOW 2"
ELBOW 2 ½"
FLOAT VALVE 63
G.I PIPE 0¾"
G.I PIPE 1"
G.I PIPE 1¼"
G.I PIPE 1½"
G.I PIPE 2"
G.I PIPE 2½"
G.I SOCKET 0¾"
G.I SOCKET 1¼"
G.I SOCKET 1½"
G.I SOCKET 2"
G.I TEE 1"
G.I TEE 1¼"
G.I TEE 1½"
G.I TEE 2"
G.I TEE 2½
NIPPLE 0¾"
NIPPLE 1"
NIPPLE 1¼"
NIPPLE 1½"

Description of Goods
NIPPLE 2"
NIPPLE 2½"
PVC ELBOW 63
PVC RED SOCKET 40-32
PVC RED SOCKET 50-40
PVC RED SOCKET 63-50
PVC RED SOCKET 75-50
PVC RED SOCKET 75-63
PVC TEE 32
PVC TEE 40
PVC TEE 50
PVC TEE 63
PVC TEE 75
PVC VALVE 32
PVC VALVE 40
PVC VALVE 50
PVC VALVE 63
PVC VALVE 75
REDUCER G.I.1"-¾"
PVC RED SOCKET 75-63
SADLE PIECE 32-1"
SADLE PIECE 40-1
SADLE PIECE 50
SADLE PIECE 50-1"
SADLE PIECE 63
SADLE PIECE 63-1"
SADLE PIECE 75-1"
TAP 0¾"
UNION 0¾"
UNION 1"
UNION 1 ¼"
UNION 1 ½"
UNION 2 "
UNION 2½"
NON RETURN VALVE 2"
GEBAJOINT
GLUE 1 kg
HERM (ROLL)
SAND PAPER (ml)

Article 13: `PIPING

13.1 DESCRIPTION

This item shall consist of the supply and lying of all pipes, including the installation of accessories like couplings, tees, reducers, etc. etc. to entirely complete this item as per these specifications and plans provided.

13.2 CARE/LAYING OF PIPES

The soil in the bottom of the trench shall be lightly scarified before laying the pipes or other hydraulic elements.During transport, storage, and assembling of piping element care shall be taken to avoid soil and other contamination from entering the system.

Lying of pipes, assembling of pipes and all other works directly related to piping works, shall only be executed during dry weather conditions.Pipe elements and connecting accessories shall be assembled in such a way that no tension can occur in the separate elements.Only skilled plumbers shall be employed on any plumbing work. Pipe joints, reducers, tees, etc. shall be connected in conformity with the manufacturer's prescriptions

13.3 METHOD OF DETERMINING QUANTITY OF G.I AND PVC PIPING LAID

The quantity of Polyvinyl Chloride (PVC) and Galvanize Iron (G.I) piping laid shall be measured per linear meter of laid pipe. Measurements shall be made for each class of pipe and each diameter of pipe separately.

13.4 PIPELINE INDICATORS

Concrete indicators shall be implanted along the pipeline at an interval of 50m so as to locate the passage of the pipeline buried underneath ground surface.

CHAPTER V: CONSTRUCTION METHODS

Article 14: SETTING OUT OF WORKS

The Contractor shall be responsible for the setting out of all pertinent lines, works, grades, reference points and levels that may be required for the proper and accurate positioning of all the structures on the work site. The works so set out shall be received by the Supervising Engineer before construction work actually begins

Article 15: EXCAVATION OF TRENCHES

Pipe trenches shall be excavated to a depth of at least 60cm and at most 100cm and width of 40cm.The bottom of each trench shall be free of any stones or other materials which could damage the pipes.

Article 16: BACKFILL

The Contractor shall be responsible for all backfill operations. However, such operations shall only be carried out after the pipe specifications and dimensions of the trenches have been approved by the Supervising Engineer. After the pipes have been laid in the trenches by qualified plumbers, and the successful hydraulic tests conducted, they shall be carefully covered with soil and rammed in, in soil layers of 20cm thick.

The backfilling of pipes crossing motor-able roads shall be done in conformity with laid down norms. The compaction requirement for backfill shall be at least 90% of the dry modified optimum proctor density.

Article17: MAINTENANCE OF EXCAVATIONS

The Contractor shall bear the risk associated with the collapse of any surface exposed as a result of excavation effected anywhere on the work site, whether or not he takes any precautions against such accidents. The nature of the precautions he may take shall be entirely at his discretion. No water shall be allowed to accumulate in any part of an excavation. For that reason, every excavation shall be protected against flooding, seepage, run-off, etc. should water accidentally enter any excavation; it shall be immediately removed by pumping or bailing at the expense of the Contractor.

Article 18: CONTROL OF THE WORKS.

The supervision and control of the works shall be done by JV ORICAA/TWGA a Consulting Firm under the coordination of the Livestock and Fisheries Development Project (LIFIDEP)

18.1 Worksite logbook.

In order to carry out an effective follow-up of the execution of the project, the Contractor shall make available in the worksite a logbook on which shall be recorded everything

concerning work progression? This log book will help the Controllers, on arrival in the worksite, to exactly know the state of evolution of the project. The book will be held by the "Recorder", an employee of the Enterprise, and that will be his sole task in the worksite. The Recorder shall always put in writing all the daily activities in this book, as operations evolve. The book shall be signed by JV ORICAA/TWGA a Consulting Firm (as project supervisor) and the Contractor, and shall serve as the basis for the establishment of vouchers.

Remarks and reserves made by the JV ORICAA/TWGA a Consulting Firm (as project supervisor) and responses to such by the Contractor shall be recorded in this book.

CONCRETE CONSTRUCTION SPECIFICATIONS

(Quality of materials for concrete)

i. Sand:

Nature and quality

The sand for the concrete will have the following characteristics:

Properties		Specifications
Nature		Silt river sand containing 75% of silts
Property (SE with piston on fraction 0/5)		SE > 80
Concrete Type	C 150 / C 250	Proportion of retained elements on sieve of 5mm < 15% (modulus 38)
	Q 350 / Q 450	Tolerance grain size envelope proposed by the contractor after composition studies. Friability coefficient < 20
Fines Modulus		2.8 to 3.2

Sand containing more than twenty five percent (25%) of calcium carbonate will be totally excluded.

Storage

No aggregate should be directly taken to the construction point. The aggregate brought to the site must be stocked in a stock pile. These different stocks will avoid total rupture of the stock and also allows the preparation of the aggregates especially sand before usage.

ii. Big and medium size aggregates for concrete

Nature and quality

Properties	Specifications
Angularity	The big and medium aggregates for concrete mixtures must be of machine crushed type and in various sizes as specified.
Cleanliness	Element of 2mm < 1.5% (Modulus 34).

		Matters <1.15% to be eliminated
Grain size	All concrete	Minimum : 4mm Maximum : 25mm Tolerance grain size envelope proposed by the contractor after composition studies.
Hardness		LA < 35

In each of the granular class, d/D, the percentage passing through d and that retained from D must be in weight greater or equal to 10% for the Q 350 or Q 400 concrete.

The retained grains of 1.56 D must not be zero and the percentage passing 0.63 d should be less that 3%.

The dimensions are expressed in a series of normalized sieves

Storage:

The specified prescription for sand must be applied for big and medium aggregates.

iii. Cement for concrete

Nature and quality

The cement to be used must be Portland cement (CPJ35) or of a category and an equivalent class of the country of origin.

Source and mode of supply.

The cement must come from a factory confirmed by the Engineer and in all the cases cement with the same specification must be provided from the same factory. It will be supplied in bags of 50kg or in mass storage and if possible, at a temperature less than 70°C.

The contractor will assure that all the transportation operation and storage of cement is followed in order to avoid all the risk on compromising the quality of the binder, notably by pollution or by mixing cement of different classes.

Storage:

The contractor will make available at the site a dry container nailed and covered capable of storing the quantity of cement necessary for a consumption of one month.

The bags of cement affected by humidity will be rejected and removed from the site immediately

iv. Water for the mixing of concrete

Water for mixing will be supplied by the contractor. It must respect the physical and chemical qualities acceptable for such construction.

Water for mixing should not contain more than two (2) grams per litter of suspended matters or two (2) grams per litter of dissolved salt. It will notably not contain sulfates, chlorine like and organic matters.

The source of the water will be defined by the contractor and confirmed by the Engineer. Usage of portable water coming from public network distribution is recommended.

v. Sand cement mortar

All mortar shall be of the type M450 mixed at 450 kg of cement for one cubic meter of dry sand. When the thickness of mortar to be used is greater than 20 mm, a micro concrete mixed at 400 kg of cement should be applied.

vi. High Adherence Reinforcement steel for Reinforced Concrete

Nature of Steel:

The high adherence reinforcements will be in steel having the conventional limit of elasticity greater than or equal to $42kg/mm^2$.

Purchasing:

The reinforcement will be provided in lengths not less than 11m. In general the contractor must provide to the Engineer all the authentic certificates of origin and the class of the steel provided.

vii. Wood for Formwork and Propping

The necessary wood for formwork will be chosen by the contractor who will eventually justify the qualities of resistance required for the formwork under loads. In the case of using plywood to obtain a smooth finished surface, the minimum thickness of this sheet will be fifteen (15) millimeters.

Control of the materials quality

All the materials proposed by the contractor are subjected to agreed preliminary tests.

Preliminary Test:

These tests are to be done by contractor. The result must be confirmed by the engineer. They must be presented to the Engineer two weeks before the usage date of the material.

Compositions and Destination of Concrete

The quality, the class of concrete, the cement, its category and class, its dosage, the destinations and the resistances to compression and traction manifested by the different concrete are indicated in the table below.

It is the responsibility of the contractor to propose to the Engineer for each class and destination of concrete, the exact formula that he will be using and in particular, the nature and class of cement employed and its dosage. This will be less than or equal to minimum dosage indicated on the table in such a way as to obtain the required minimum resistances.

Characteristics of concrete

Class	Cement weight per m^3	Destination	Minimum strength	
			Compression	Traction
C 150	CPJ 45 at 150 kg / m^3	Lean concrete	None required	
C 250	CPJ 45 at 250 kg / m^3 CPA 325 at 250 kg / m^3	Filling concrete Mass concrete	None required	
Q 350	CPA 45 at 350 kg / m^3 CPA 325 at 350 kg / m^3	Abutment, box culvert, foundation slab. Drainage structures	σ28=28 Mpa	Fc28 =25Mpa
Q 400	CPA 45 at 400 kg / m^3	Bridge deck, foundation, Storage Tanks, slab, immersed concrete, Dams	σ28=30 Mpa	Fc28 =28Mpa

Specimens and Control

For control or test carried out at the site, the number of sample specimens is defined below.
Fabricated elements on site; 3 specimens per cubic (m^3) of concrete
The value of slump from the Abram's cone of fresh concrete will be between 6 and 10 centimeters and to be controlled at each concrete fabrication:

Conditions of Concreting

Generally, disposition should be taken for concrete protection considering the usual climatic conditions, the contractor should apply curing products or humidifiers on the surfaces of exposed concrete.
The contractor must cover systematically any quantity of concrete put in place for up to 48 hours for proper curing. Concrete pours should not be made from heights greater than 2 m.
The concrete C 150 and C250 should be properly compacted after superficial vibration.
All concrete pours should be finished with sufficient vibration either externally or internally in a vertical push and pull.

Concreting in hot weather

Generally, the contractor must propose to the Engineer the dispositions taken to limit the temperature of fresh concrete and its desiccation. He will provide the necessary equipment for the measuring and registering of temperature and the hydrometer.

- The temperature of fresh concrete should not be more than +40°degree Celsius measured immediately before putting in place in the formwork. The formwork and the reinforcement must be maintained wet at the level of the ambient temperature by watering at the start of concreting.
- Obligatory curing with curing products and permanent humidification. The curing of concrete by humidification will be maintained during five (5) days minimum.

Formwork and concrete surfaces

Formworks shall be made of metallic elements, wood or any other equivalent material which shall be approved by the supervising engineer. All formwork for slabs, foundation footing, base slabs and all visible parts shall be smooth and regular. These types shall be called treated formwork.

The formwork must be solid to resist any form of deformation after concrete casting and it should be water tight. The deformation of the formwork under the weight of fresh concrete should not be more than 4 mm on a length of 2m and not more than 20 mm at any other point. Before concreting, the formwork shall be carefully cleaned and the interior wetted completely or covered with formwork oil depending on the type of formwork whether treated or untreated. The formworks shall be constructed such that they can be removed partly without touching the supports which would be in place for longer periods.

The exterior points of formworks shall have babble of minimum 2 cm or as prescribed by the supervising engineer.All wooden formwork shall be constituted of identical panels, made of the same wood or if not should be covered with plastic surface or oil paint.

The thickness of plywood shall be minimum 20 mm.All metallic formwork shall be made of sheets with minimum thickness 5 mm.All buried concrete surfaces shall be covered with bitumen coating or similar water proofing product.After removal of formwork all rough or non-conforming concrete surfaces shall be cleaned and repaired with the approval of the supervising engineer.

CONCRETE BATCHING FORMULA					
	Designation Nomenclature	**Cement (Litre)**	**Sand (Litre)**	**Gravel (Litre)**	**Water (Litre)**
In Litres	Lean PC 150kg/m^3	150	540	720	90
	Found PC 300 kg/m^3	300	400	800	180
	Slab PC 350 kg/m^3	350	420	840	200
In Wheel Barrows	PC 150 kg/m^3	50kg bag	3	5	
	PC 300 kg/m^3	50kg bag	1	3	
	PC 350 kg/m^3	50kg bag	1	2	
By Proportion	PC 150 kg/m^3	1	4	7	
	PC 200 kg/m^3	1	3	5	
	PC 250 kg/m^3	1	2.5	4	
	PC 300 kg/m^3	1	2	3	
	Concrete Compressive Strength by PC PC 150 kg/m^3→55kg/cm^2 PC 200 kg/m^3→ 90kg/cm^2 PC 250 kg/m^3→130kg/cm^2 PC 300 kg/m^3→175kg/cm^2 PC 350 kg/m^3→225kg/cm^2				

PLASTERING WATER BEARING STRUCTURES AGAINST LEAKAGE

External:

- Spatter dash 1:2, slurry 1-4mm
- Rendering coat 1:3, plastic 1.5-2cm or pointing with 1:2 between joints

Internal:

- Spatter dash 1:1.5 slurry
- Floating coat 1:3, 2cm screed
- Setting coat 1:2, sieved sand, 2cm
- Pure cement paste
- Do not forget benching the corners from "V" into "U" form

ALTERNATIVE METHOD TO ABOVE:

- Use "Enduitetanche" cement paste after step ll

B: SPECIFICATIONS FOR EQUIPMENT FOR

B1: 3-LINE MODERN SLAUGHTER HOUSE,

B2: POULTRY FEED MILLS

B3: FISH FEED MILL

B1: 3- LINE MODERN SLAUGHTER HOUSE

B1.1 Equipments for cattle slaugthering line

No	NAME	DESCRIPTION	COMPOSITION	SIZE	UNIT	QUANTITY
1	Ritual Killing Box	Suitable for muslim Halal (90° turn) slaughtering stainless steel and engineering plastic weight: 1800kg, capacity: 15 heads per hour	1 stainless steel collecting grid, 1 power box, 1 control box	2600x2100x2400mm,	Pc	1
2	Bleeding Elevator	Use for raising cattle to bleeding rail hot-dip galvanized electric hoist Lifting height: 6m , Lifting capacity: 1600kg , Lifting speed:8m/min, Power: 380V 50HZ 3kw	1 hoist, 1 hanging device, 1supporting frame, 1 rail fixation device		Pc	1
3	Dressing Line	Hot galvanized □60 x 4.5mm tube rail, hanging below double U sections by hangers double U sections are connected by screw blots and plates tube rails are connected with steel beams by hangers	30m tubular rail , 1 manual stopper		Pc	1
4	Fixed platform for prehiding backside	Stainless Steel	Square tube pillars, 1 Punching pallet ladder, 1 set of engineering	1200x800x1200mm	Pc	1

			plastic mesh countertop, 1 set of guardrail			
5	Fixed platform for prehiding frontside		Square tube pillars, 1 Punching pallet ladder, 1 set of engineering plastic mesh countertop, 1 set of guardrail	1200x800 x1000mm, 1200x800 x600mm	Pc	1
6	Dehiding Machine	Stainless Steel roller dimension: 100mm, drum speed: 23RPM, cylinder stroke: 1250mm, Capacity: 15/h	2 stainless platform, 1 set of skin rolling unit, 1 hydraulic station, 1 set of chain, 1 frontleg fixationdevice, 2 frontleg fixation chain	1220x600 x2800mm	Pc	1
7	Reciprocating Brisket Saw	Imported equipment, used for cattle carcass brisket bone cut suitable for cattle and other livestock brisket bone cut protecting round on the blade top, to prevent from damaging offals. Damping balance block inserts, reducing vibration smoth surface, the motor is completely sealed, convinient for cleaning, handle trigger is sealed to prevent the entry of moisture and dirt. length: 711mm, saw blade length: 241mm, weight: 24kg, power: 1.4kw	1 balancer, 1 pcs of spare saw blade, 1 sterilizing device		Pc	1

8	Pneumatic Spreader	Use for cattle leg spreading for splitting or eviscerating operation convenience. Hot-dip galvanized pneumatic drive cylinder bore: 700mm max. spreading distance: 1450mm			Pc	2
9	Fixed Platform for take out white offals	stainless Steel	Square tube pillars, 1 Punching pallet ladder, 1 set of engineering plastic mesh countertop, 1 set of guardrail	2000x1000x750mm	Pc	1
10	Banksaw Splitting	Imported equipment, used for cattle carcass half splitting suitable for cattle half splitting advanced guidance system makes the blade a longer life blade thickness is moderate, in order to reduce the loss of meat the seal of the gear mechanism provides a good operation and longer life smooth surface, the motor is completely sealed convenient for cleaning handle trigger is sealed to prevent the entry of moisture and dirt. length: 1295mm, blade length: 2845mm, weight: 56kg, power: 2.3kw	1 balancer, 1 pcs of blade, 1 sterilizing device		Pc	1

11	Pneumatic lift for splitting half	Stainless Steel, single cylinder. Cylinder bore: 100mm, lifting height:1200mm, lifting weight: 100kg	2 square tube column, 1 set of engineering plastic mesh countertop, 1 set of guardrail, 1 knife sterilizer		pc	1
12	Reciprocating quatering saw	Imported equipment, used to split half carcass to quarter carcas. Suitable for different animals, electrical surface is smooth, completely sealed, no heat sink that makes it cleaning easy, handle trigger switch is sealed, to prevent entry of moisture and dirt. lenght: 813mm, saw blade depth: 406mm, weight: 4.5kg, power: 0.8kw.	2 pcs of square saw blade		pc	1
13	Elevators for quatering carcass	Use for carcass quatering, hot dip galvanized decending height: 600mm, conveyor speed: 10m/min single hinged chain nylon roller, ball bearing connection, vertical running smoothly □60 x 4.5mm tube rail, hanging below double U sections by hangers, conveyors are connected with steel beams by HALFEN			pc	1
14	Tubular rail scale	Use for carcass weighing, in order to calculate dressing percentage. Hot galvanized; weight length:600mm, maximum weighing: 500kg, weighing resolving ability: 0-150kg: 50g:	1 set of sensor, 1 tubular rail and frame, 1 digital display with a communication interface, 1 thermal printer		pc	1

		150-300kg: 100g: 300-500kg: 200g				
15	Manual Rail	Hot galvanized □60 x 4.5mm tube rail, hanging below double U sections by hangers double U sections are connected by screw blots and plates tube rails are connected with steel beams by hangers	1 set of hangers and rail beams, 1 set of switches 1 LG, 1 set of switches 1RG, 1 set of switches 2LG, 1 set of elbows.		m	25
16	Rolling hook for Cattle	Aluminum alloy frame stainless steel hook □20mm, loading capacity: 1250kg, weight: 2.3kg, wheel duplex bearings, corrosion resistance; with two seals			Pc	200
17	Meat Vehicle	Stainless steel flat-style standard cart, capacity: 200L, including2 fixed wheels and 2 activity wheels		700x690x 680mm	Pc	4
18	Manual Sprayer	food-grade plastic material, 3m food-grade hose			Pc	10
19	Hand washing basin with knife sterilizer	Stainless steel, square tube as supportequiped with splash plate, drain trap and lap top valve knife sterilizer is equiped with manual valve, flow regulator,overflow and shelf, which can hold 2 knives and 1 grinder			Pc	4
20	Apron washing machine with knife sterilizer	Stainless Steel; apron washer is equiped with oriented nozzle, splash plate, drain pan, foot valve and disinfectant box knife sterilizer is equiped with manual valve, flow regulator,overflow and shelf, which can hold 2 knives and 1 grinder			Pc	2

1.2: Equipment for sheep & goat slaughtering line of minimum capacity of 15 heads per hour

No	Name	Description	Composition	Size	Unit	Qty
2.1	Sticking Work Table	Stainless Steel		1000 x600mm	Pc	1
2.2	Bleeding Elevator	Use for raising shep to bleeding rail, hot-dip galvanized electric hoist lifting height:3m, lifting capacity: 500kg, lifting speed: 6m/min, power: 380V 50HZ 1.5kw	1 hoist; 1 hanging device, 1 supporting frame, 1 rail fixation device		Pc	1
2.3	Dehiding machine	Use for raising shep to bleeding rail, hot-dip galvanized electric hoist lifting height:3m, lifting capacity: 500kg, lifting speed: 6m/min, power: 380V 50HZ 1.5kw	1 hydraulic station, 1 rolling station, 1 handheld control panel		Pc	1
2.4	Manual rail	Hot galvanized, 60□ x 4.5mm tube rail,hanging below double U sections by hangers, double U sections are connected by screw blots and plates tube rails are connected with steel beams by hangers.	1 set of hangers and rail beams, 1 set of switches 1LG, 1 set of switches 1 RG, 1 set of switches 2LG, 1 set of switches 2RG, 1 set of elbows		m	18
	Electric Control					
3.1	Electric control system	GGD standard cabinets, sealed, waterproof Schneida, Siemens or Mitsubishi electrical components Chinese national standard wire and cable	1 set of main switches and control buttons, 1 set of socket boxes, 1 set of cables and bridges		pc	1
	Carrying and Suspension Construction					
4.1	Carrying Construction	Hot galvanized Chinese national standard steel	Section steel main beams supporting column		ton	10

4.2	Suspension Construction	Hot galvanized	Secondary Steel beams hanger; screw belts, nuts platen fasteners		ton	1.5
	Transportation and Installation					
5.1	Packing and Transportation					
5.2	Supervisor Guide Installation	Customers are required to provide technicians and installation tools, customers are responsible for dispatched engineers traffic fees, customers are required to make proper arrangements for the accommodation of dispatched engineers.	1 mechanical engineer, 1 electrical engineer, 1 translator, or provided by the customer		pc	1

B1.3 Equipment for poultry slaughter line

EQUIPMENT FOR CHICKEN SLAUHTER LINE WITH MINIMUM CAPACITY OF 300 BIRDS PER HOUR						
No	NAME	DESCRIPTION	MODEL	SIZE	UNIT	QUANTITY
1	Working bench for blooding	Table-board made of stainless steel, thickness 2mm stainless steel construction, adjustable feet just for chicken blooding in subuliform bucker, made of stainless steel Thickness 1.2mm under the workbench with a tub for collecting chicken blood, and with a bleed valve		2240x920x700	Pc	2
2	Electric heating Scalder	Electric Heating, The heating system power: 30kw Automatic water level control system, the temperature of water is controlled automatically. Mechanical Stiring machine, power of motor for driviing deducer. Mixing time pool body is made up of 2 mm stainless steel plate. Casing is made of 1.5 mm stainless steel plate		1200X800X800	Pc	1
3	Rotating drum plucker	Rotating drum and cover made by stainless steel, Thickness 2mm. Motor power : 3 kw		1100x1100x800	Pc	1
4	Working bench for receiving carcass	Made by stainless plate, thickness 1.5 mm		1880x880x1000	Pc	1

5	Working Bench for Sorting	Made by Stainless Steel plate, table top made by halfton, thickness 1.5 mm		1880x880x1001	Pc	2
6	Machine for removing Chicken gizzard oil	Made by stainless steel Diameter □800, Motor power: 3kw spray pipe cover made by stainless steel		900x900x1000	Pc	1
7	Machine for removing Chicken gizzard skin	Made by stainless steel plate, High strength resistant roller for removing gizzard motor power: 0.75 kw		600x600x8000	Pc	1
8	Steeping pools for carcass	Made by stainless steel plate Thickness 2mm Depth of pool: 500mm with draw off valve		1800x800x700	Pc	1
9	Steeping pool for viseera	Made by stainless steel plate Thinkness 2mm Depth of pool: 500mm with draw off valve		900x800x700	Pc	2
10	Working bench for Packing	Made by stainless steel plate, thinkness 2mm		1880x880x800	Pc	5
11	Slabbing Saw	Frames and foundation made by stainless steel high strength cutting blade motor power: 1.5 kw cover made by stainless steel		500x420x480	Pc	2
12	Utility Card	Made by stainless steel plate		850x600x900	Pc	4

B2: EQUIPMENT FOR POULTRY FEED MILL

SPECIFICATIONS EQUIPMENTS FOR POULTRY FEED PRODUCTION LINE CAPACITY: 3-5 TONS PER HOUR

EQUIPMENTS FOR POULTRY FEED PRODUCTION LINE CAPACITY: 3 - 5 TONS PER HOUR								
No	Name	MODEL	QUANTITY	UNIT	POWER (kw)		PRICE (FCFA)	
					Unit	Total	Unit	Total
I. Receiving and Precleaning Process								
101	Intake Channel		2		0			
102	Fan(national standard product)		1		2.2	2.2		
123	Pulse filter		1					
104	Airlock		1		0.75	0.75		
105	Bucket Elevetor (with elevator foot including: belt pulley, inlet, belt, bucket shafts, elevator head)		1		2.2	2.2		
106	Drum Pre Cleaner (to remove the sundries from raw material to protect the equipment)		1		0.55	0.55		
107	Tubular magnet (made of full stainless steel)		1		0	0		

II. Grinding Process								
201	Prebin for grinding		1					
202	Screw Feeder (Frequency control, uniform Feeding)		1		1.1	1.1		
203	Ham-mer mill (Water-drop Type, with more efficiency output)		1		37	37		
204	Fan		1		3	3		
205	Pulse Filter		1					
206	Air Channel		1					
207	Screw Conveyor (to transport the powder material into bucket elevator		1		2.2	2.2		
208	Bucket Elevetot (with elevator foot including belt, pulley, inlet, belt, bucket, shafts, elevator head		1		2.2	2.2		
III. Mixing Process								
301	Prebins for pelletMixer		1					
302	Manual Valve		1					
303	Manual Adding bin		1					
304	Double-shaft mixer (500kg/PATCH, CV≤7%)		1		11	11		
305	Hopper		1					
306	Scraper Conveyer (To transport the raw materials into bucket elevator)		1		2.2	2.2		
307	Bucket Elevator (with elevator foot including belt, pulley, inlet, belt, bucket shafts, elevator head)		1		3	3		
308	Tubular magnet (made of full stainless steel)		1					
309	Pneumatic 2 ways (to distribute the materials into different storage bin)		1					

IV. Pelleting and Cooling Process								
401	Prebin for pellet mill		1					
402	Manual valve		1					
403	Hopper		1					
404	Pellet Machine (Gear driving, high efficiency, high output. Same with CPM.Capacity: 3T/H (Live stock and poultry feed); size: 5-6mm)		1		37	37		
405	Air-Lock feeder		1		0.75	0.75		
406	Counter Flow cooler (to cool the pellet after pellet mill)		1		1.1	1.1		
407	Fan (national standard producct		1		11	11		
408	Cyclone (with windows)		1					
409	Airlock		1		75	75		
410	Crumble machine (low noise with high efficiency		1		4.5	4.5		
411	Bucket Elevator (with elevator foot including belt, pulley, inlet, belt, bucket shafts, elevator head)		1		2.2	2.2		
412	Rotary Screenet (NSK bearing		1		1.5	1.5		
413	Pneumatic 2 ways (to distribute the materials into different storage bin)		2					

V. Packing Process								
501	Finished product Bin		1					
502	Pneumatic 2 ways (to distribute the materials into different storage bin)		1					
503	Hopper (supplied by client		1					
504	Packing scale		1		1.1	1.1		
505	Sewing machine and conveyor		1		1.1	1.1		

VI. Auxiliary Process								
601	Fan (national standard producct		1		0.75	0.75		
602	Pulse Filter		1					
603	Airlock		1		0.55	0.55		
604	Air Compressed System		1		11	11		

II. Electrical Control System							
1	CCP control center (including imported PVC analogue panel, buttons imported from Japan, imported PLC control system)						
2	Armoured KVV cable, wire, trunking, standard bridge suppoprt and other auxiliary materials						

III. On-Site materials								
1	Air network system for air absorbing, dedusting, cooling, etc							
2	Non-standard parts such as slide pipes, machine frame, platform, noise-reducing pipes, pipeline materials, etc							
3	Auxiliary materials such as standard parts, seals, soldering parts, etc							
4	Pneumatic components and air compressing accessories, etc							
IV. Others								
Feed analyzer			1					
Laptop installed with feed formulation software			1					
	The motor of above equipment are adapted to 3 poles, 380v, 50HZ.							

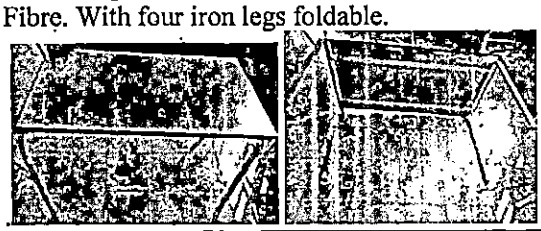
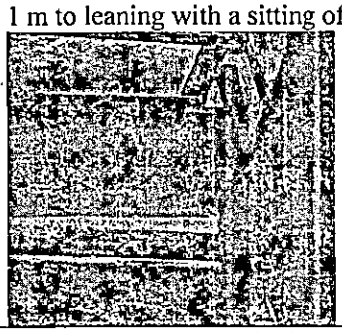
B3: EQUIPMENT FOR FISH FEED MILL

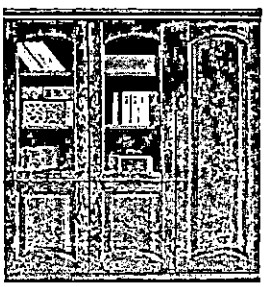
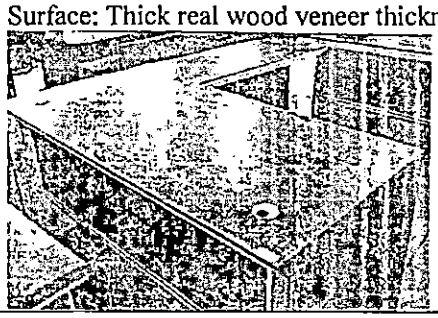
SPECIFICATIONS EQUIPMENT FISH FEED MILL MINIMUM CAPACITY OF 2 TONS/HOUR

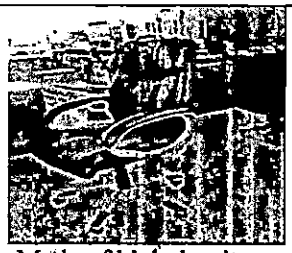
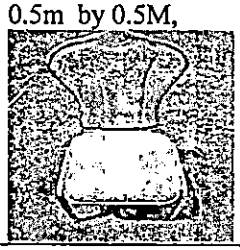
EQUIPEMENTS FISH FEED PRODUCTION LINE					
No	NAME	MODEL	QUANTITY	UNIT	POWER KW
1	Screw Elevator		1		1.5
2	Storage Bin (Material: carbon steel)		1		
3	Feed Crusher (including : Feed screw, Conveyor: 0.75kw; Crushing main motor:30kw; Classifier: 1.1kw; Capacity: 0.1-0.3t/h)		1		31.85
4	Screw Elevator		1		1.5
5	Cyclone (with windows)		1		
	Bag Filter (including: pulse Filter: 8.6kw; Airlock: 0.75kw; Fan: 7.5kw;		1		16.85
6	Airlock Valve		1		0.75
7	Feed Mixer (250kg/PATCH, CV≤5%, Material: Carbon steel)		1		7.5
8	Screw Elevator		1		1.5
9	Fish Feed Extruder (including: Feed screw Conveyor: 0.7kw; Conditioning and Riping Machine: 2.2kw; Extruder Unit: 30kw; Cutter Mechanism:1.1kw)		1		34.05
10	Fan		1		5.5
	Cyclone (with windows)		1		
	Airlock Valve		1		0.75
11	Mesh Belt Dryer (including: Dryer:0.75kw; Airlock:1.1kw; Leveling mechanism: 0.75kw; Desiccant blower: 5.5kw; Circulation fan: 5.5kw; Heat exchanger plate)		1		13.6
12	Fan		1		5.5
	Cyclone (with windows)		1		

	Airlock Valve		1		0.75
13	Oil Spraying Machine		1		
14	Fan		1		
	Cyclone		1		5.5
	Airlock Valve		1		
15	Feed Pellet Cooler (to cool the Pellet after Pellet mill)		1		0.75
16	Fan		1		0.75
	Cyclone		1		3
	Airlock Valve		1		
16	Fan		1		0.75
	Cyclone (with windows)		1		5.5
	Airlock Valve		1		
17	Finish Product Bin (material: Carbon steel)		1		0.75
	Packing Scale (25-50kg/bag. 4-6bags/minute		1		3.5
18	Sewing Machine and Conveyor (High quality Sewing Machine)		1		1.1
	Sub Total				
	1, Electrical Control System				
1	CCP control center (including imported PVC analogue panel, buttons imported from Japan, imported PLC control system); Apply Schneider componets on less than 15kw switches and contactor, CHINT will be optinal; buttons on simulated screen imported from Japan; Progrmmable Controller from Mitsubishi.				
2	Armoured KVV cable, wire, trunking, standard bridge support and other auxiliary materials				

C: SPECIFICATIONS FOR EQUIPMENT FOR DEMO CENTRES.

No	Item	Units	Quantity /Centre	Specification/characteristics
	Equipment For Class rooms			
1201	Class room tables for trainees	u	50	1.8 m long, 0,8m high, 0.8m wide medium Density Fibre. With four iron legs foldable. 
1202	Class room tables for trainers	u	2	Dimensions in mm : 1000*1800 ▪ Made of Medium Density Fiber (MDF) board, with 2 drawers
1203	Sitting chairs in classrooms	u	52	Four legs plank chair hard wood 0.6m high on sitting, 1 m to leaning with a sitting of 0.5m by 0.5M, 
1204	Overhead projectors	u	1	100-240volts, 50Ams bulb, LV 300 with 2 USB ports, 2 outputs and a provision for video.
1205	Projector screens	u	1	2mX2m , 3 meters high
1206	Flipchart board	u	1	Two meters high and one meter wide with 3stands
1207	Ink boards	u	1	3 meters by 1, 5 meters. (write and whip in boards)
B	**Office equipment**	u		
1208	Photocopier	u	1	▪ 35 copies Per Minute ▪ Auto Duplex (2-Sided Copying) ▪ Auto Document Feeder (RADF) ▪ Electronic Sorting ▪ (2) 550 Sheet Paper Drawers ▪ Paper Sizes: 5-1/2 x 8-1/2 to 11 x 17 ▪ Network Print/Scan ▪ Universal Send ▪ Stapler Finisher
1209	laptops	u	2	500GB hard drive, 4GB RAM 2GHz processor. Minimum windows 10
1210	Computer desktop	u	2	500GB Hard drive, 4GB RAM Minimum windows 10

1211	Automatic voltage regulator	u	2	AVR 1500 VA
1212	Printers	u	1	Laser, Up to 42 ppm, Hi-Speed USB 2.0; 1 HP Jet direct 10/100/1000T Ethernet embedded print server; 1 EIO; 1 Host USB 2.0 (front-panel); 2 internal Accessory (for connecting HP or partner solutions)
1213	Computer table	u	2	0.6m wide x1m long x 1 m wide,
1214	Stapling machines(giant)	u	2	Strong Iron type
1215	Binding machine	u	2	Strong Iron A4
1216	Paper perforators	u	2	Strong Iron
1217	Calculators	u	2	Scientific calculators
1218	Digital Cameras	u	2	54 X image zoom 9.2 Mega Pixels minimum
1219	Book office cupboards	u	2	 Office glazed cupboard with high quality locks Dimensions in mm : 1500W*400D*1950H ▪ Made of High density fiber (HDF) board ▪ Surface: real wood veneer thick 0.6mm minimum Quality joint fitting and locks.
1220	Office tables	u	2	Dimensions in mm : 1600*1800 ▪ Made of Medium Density Fiber (MDF) board, 3 drawers ▪ Main and side table+ caisson Surface: Thick real wood veneer thickness 0.6mm 

1221	Office chairs	u	2	 ▪ Made of high density sponge foam ▪ covered with real leather ▪ height adjustable ▪ sway back and forth ergonomic heavy armrest and metallic legs covered with nylon base with double wheel castors for easy movement.
1222	Office visitors chairs	u	2	Four legs foam chair 0.6m high on sitting, 1 m to leaning with a sitting of 0.5m by 0.5M, 
1223	Window curtains	u	2	3 by 3 meters cotton.
1224	Coffee makers	u	1	2liters with clear glass, with a connected electric cable.
C	**Stationery**			
1225	Pens (packets)	packets	10	Packets of 50 assorted ball points stylo
1226	Block notes(packets)	packets	10	Packets of 5 , A4 160 pages, 60gm
1227	Flip chart papers	Rolls	10	Rolls of white flipchart papers.
1228	Bold markers(packets)	packets	10	Packets of 10 permanent markers
1229	Chalk	packets	10	Boxes of 100 pieces white.
1230	Papers (packets)	packets	20	Packets of 5 realms of 500 sheets, 80gms, A4 white
1231	Laser printer Ink	u	10	Black cartridge
1232	Binding spirals	packets	20	Packets of 50 in various sizes
1233	Transparent papers	packets	10	Packets of 100 in varying colours (A4)
1234	Hard cover papers	packets	10	Packets of 100 in varying colours (A4)
1235	Staples	packets	30	Big packets of 10boxes of 100PCS 24/6,
1236	Paper clips	packets	30	Big packets of 10 boxes of 1000PCS, 24/6

Drawings

LIST OF DRAWINGS/PLANS

LOT 1;

1. CONSTRUCTION OF 7 DEMONSTRATION CENTERS (CLASSROOM & OFFICE UNITS)

1100A	Sites and situation plan Dumbu Misaje Pasture Demonstration Center
1100B	Sites and situation plan Pasture Demonstration Center Santa
1100C	Sites and situation plan Pasture Demonstration Center Fundong
1100D	Sites and situation plan Pasture Demonstration Center Wum - Wada
1100E	Sites and situation plan Pasture Demonstration Center Mbengwi
1100F	Sites and situation plan Pasture Demonstration Center Babungo
1100G	Sites and situation plan Pasture Demonstration Center Tadu
1101	Foundation Plan
1102	Ground Plan
1103	Roof Plan
1104	Section A-A
1105	Front and Back Elevation
1106	Left and Right Elevation
1107	Shed attached to Pasture Demonstration Center
1108	Electrical Key
1109	Electrical Plan
1110	Reinforcement Schedule 1
1111	Reinforcement Schedule 2

2. CONSTRUCTION OF 7 DIVISIONAL CLINICS (RENOVATION) + EQUIPMENT TO CLINICS (LABORATORIES)

900A	Site and situation plan for Rehabilitation of Veterinary Clinic Bamunka
900B	Site and situation plan for Nkambe Veterinary Clinic
900C	Site and situation plan for Veterinary Clinic Bamenda II Mezam
900D	Site and situation plan for Divisional Veterinary Clinic Kumbo
900E	Site and situation plan for Divisional Veterinary Clinic Wum
900F	Site and situation plan for Divisional Veterinary Clinic Mbengwi
900G	Site and situation plan for Divisional Veterinary Clinic Fundong
901	Foundation Plan
902	Ground Plan
903	Roof Plan
904	Section A-A
905	Front and Back View
906	Left and Right View
907	Electrical Key
908	Electrical Plan

909	Reinforcement Schedule 1
910	Reinforcement Schedule 1

3. CONSTRUCTION OF 20 SUB DIVISIONAL VETERINARY CENTERS

700A	Sites and situation plan for the Zoo Technical Veterinary Bafangji
700B	Sites and situation plan for Misaje – Kigenshu Zoo Technical Veterinary
700C	Sites and situation plan for Ako Zoo Technical Veterinary
700D	Sites and situation plan for Nkambe Zoo Technical Veterinary
700E	Sites and situation plan for Ndu Zoo Technical Veterinary
700F	Sites and situation plan for Upkwa Zoo Technical Veterinary
700G	Sites and situation plan for Banakuma Zoo Technical Veterinary
700H	Sites and situation plan for Andek Zoo Technical Veterinary
700I	Sites and situation plan for Batibo Zoo Technical Veterinary
700J	Sites and situation plan for Jakiri Zoo Technical Veterinary
700K	Sites and situation plan for Elak Zoo Technical Veterinary
700L	Sites and situation plan for Nkor Zoo Technical Veterinary
700M	Sites and situation plan for Zhoa Zoo Technical Veterinary
700N	Sites and situation plan for Bambalang Zoo Technical Veterinary
700O	Sites and situation plan for Babessi Zoo Technical Veterinary
700P	Sites and situation plan for Pinyin Zoo Technical Veterinary
700Q	Sites and situation plan for Mundum Zoo Technical Veterinary
700R	Sites and situation plan for Fundong Zoo Technical Veterinary
700S	Sites and situation plan for Belo Zoo Technical Veterinary
700T	Sites and situation plan for Bambui Zoo Technical Veterinary
701	Foundation Plan
702	Ground Plan
703	Roof Plan
704	Section A-A
705	Front and Back View
706	Right and Left View
707	Quarantine attached to Zoo Technical Veterinary (Ground and Foundation Plan)
708	Quarantine attached to Zoo Technical Veterinary (Roof Plan
709	Quarantine attached to Zoo Technical Veterinary
710	Electrical Plan
711	Electrical Key
712	Reinforcement Schedule 1
713	Reinforcement Schedule 2
714	Zoo Technical and Veterinary Center with Residence attached (Ground Plan)
715	Zoo Technical and Veterinary Center with Residence attached (Roof Plan)

4. CONSTRUCTION OF 5 VETERINARY CONTROL POSTS

800A	Sites and situation plan for Border Veterinary Control Post Abonshie
800B	Sites and situation plan for Border Veterinary Control Post Sabon Gari
800C	Sites and situation plan for Border Veterinary Control Post Bawuru
800D	Sites and situation plan for Border Veterinary Control Post Esu
800E	Sites and situation plan for Border Veterinary Control Post Matazem
801	Foundation Plan
802	Ground Plan
803	Roof Plan
804	Section A-A
805	Front and Back View
806	Left and Right View
807	Electrical Key
808	Electrical Plan
809	Reinforcement Schedule 1
810	Reinforcement Schedule 1

5. CONSTRUCTION OF 50 MEAT SALES SLABS

1500A	Sites and situation plan for Meat sales Slab Babessi
1500B	Sites and situation plan for Meat sales Slab Balikumbat
1500C	Sites and situation plan for Meat sales Slab Bamunka
1500D	Sites and situation plan for Bamessing Meat sales Slab
1500E	Sites and situation plan for Nkambe Old Market Meat sales Slab
1500F	Site and situation plan for Binka Market Meat sales Slab
1500G	Site and situation plan for Dumbu Meat sales Slab
1500H	Site and situation plan for Sabon Gari Meat sales Slab
1500I	Site and situation plan for Ntumbaw Meat sales Slab
1500J	Site and situation plan for Misaje Meat sales Slab
1500K	Site and situation plan for Ndu Meat sales Slab
1500L	Site and situation plan for Ako Meat sales Slab
1500M	Site and situation plan for Tolon Oku Meat sales Slab
1500N	Site and situation plan for Tatum Meat sales Slab
1500O	Site and situation plan for Nkor Meat sales Slab
1500P	Site and situation plan for Mbiame Meat sales Slab
1500Q	Site and situation plan for Lasin Meat sales Slab
1500R	Site and situation plan for Kumbo Meat sales Slab
1500S	Site and situation plan for Jakiri Meat sales Slab
1400T	Site and situation plan for Kevu Meat sales Slab
1500U	Site and situation plan for Ibal Meat sales Slab
1500V	Site and situation plan for Babungo Meat sales Slab
1400W	Site and situation plan for Baba Meat sales Slab
1500X	Site and situation plan for Belo Meat sales Slab
1500Y	Site and situation plan for Mbessa Meat sales Slab
1400Z	Site and situation plan for Bua Bua Meat sales Slab

1500A'	Site and situation plan for Fundong meat sales Slab
1500B'	Site and situation plan for Njinikom Meat sales Slab
1500C'	Site and situation plan for Andek Market Meat sales Slab
1500D'	Site and situation plan for Guzang Meat sales Slab
1500E'	Site and situation plan for Oshie Meat sales Slab
1500F'	Site and situation plan for Acha Tugi Meat sales Slab
1500G'	Site and situation plan for Widikum Meat sales Slab
1500H'	Site and situation plan for Medankwe Meat sales Slab
1500I'	Site and situation plan for Mile 08 Meat sales Slab
1500J'	Site and situation plan for Cow boy Junction Meat sales Slab
1500K'	Site and situation plan for Nkwen Meat sales Slab
1500L'	Site and situation plan for Bafut Market Meat sales Slab
1500M'	Site and situation plan for Bali (Njenka) Meat sales Slab
1500N'	Site and situation plan for Santa Meat sales Slab
1500O'	Site and situation plan for Pinyin Meat sales Slab
1500P'	Site and situation plan for Akum Meat sales Slab
1500Q'	Site and situation plan for Bambui Market Meat sales Slab
1500R'	Site and situation plan for Sabga Meat sales Slab
1500S'	Site and situation plan for Big Babanki Meat sales Slab
1500T'	Site and situation plan for Wum Meat sales Slab
1500U'	Site and situation plan for Benakuma Meat sales Slab
1500V'	Site and situation plan for Furu Awa Meat sales Slab
1500W'	Sites and situation plan for Weh Meat sales Slab
1500X'	Site and situation plan for Befang Meat sales Slab
1501	Foundation Plan
1502	Ground Plan
1503	Roof Plan
1504	Section B-B & Section A-A
1505	Left/Right and Front/Back Views
1506	Reinforcement Schedule 1
1507	Reinforcement Schedule 2

6. CONSTRUCTION OF 1 FISH CENTER WITH 10 BROODING PONDS, 15 GROWING PONDS, 10 CONCRETE TANKS, 1 HATCHERY, LAB AND OFFICE FACILITY

1200	Site and block plan for fish farming center
1201	Foundation Plan
1202	Ground Plan
1203	Roof Plan
1204	Section A-A
1205	Front and Back Views
1206	Left and Right Views
1207	Electrical Legend
1208	Electrical Plan
1209/1210	Fish Pond Distribution Plan/Section B-B
1211	Water Yank Detail for Fish Farming Center

1212/1213	Reinforcement Schedule 1/Reinforcement Schedule 2
1214:	Distribution and foundation Plan concrete tanks farming centre
1215:	Zoom view and tranversal secion concrete tanks fish farming centre

7. CONSTRUCTION OF 15 SLAUGHTER HOUSES

1400A	Site and Situation Plan for Babungo Slaughter Slab
1400B	Site and Situation Plan for Bamunka Slaughter Slab
1400C	Site and Situation Plan for Nkambe Slaughter Slab
1400D	Site and Situation Plan for Misaje Slaughter Slab
1400E	Site and Situation Plan for Fundong Slaughter Slab
1400F	Site and Situation Plan for Nkun Slaughter Slab
1400G	Site and Situation Plan for Acha Tugi Slaughter Slab
1400H	Site and Situation Plan for Njenka (Nchie Matua) Slaughter Slab
1400I	Site and Situation Plan for Mile 12 Njong Slaughter Slab
1400J	Site and Situation Plan for Bambili Slaughter Slab
1400K	Site and Situation Plan for Benakuma Slaughter Slab
1400L	Site and Situation Plan for Bafmeng Slaughter Slab
1400M	Site and Situation Plan for Elak Slaughter Slab
1400N	Site and Situation Plan for Jakiri Slaughter Slab
1401	Foundation Plan
1402	Ground Plan
1403	Roof Plan
1404	Section A-A & Section B-B
1405	Front and Back Views
1406	Left and Right Views
1407	Reinforcement Schedule 1
1408	Reinforcement Schedule 2

LOT 2: construction and equipment of poultry feed mill, fish feed mill and 3 line modern slaughter house (abattoir)

1. Construction of poultry feed mill

1700A	Site and block Plan poultry feed mill Nkwen Bamenda
1700B	Site and block Plan poultry feed mill Kumbo
1700A	Site and block Plan poultry feed mill Nsongwa
1701	Foundation Plan poultry feed mill
1702	Ground Plan poultry feed mill
1703	Roof Plan poultry feed mill
1704	Cross section poultry feed mill
1705	Front and back views poultry feed mill
1706	Right and left views poultry feed mill
1707	Electrical Legend poultry feed mill
1708	Floor Plan lighting points poultry feed mill
1709	Floor Plan power points poultry feed mill

1710	Complete Earthing Plan poultry feed mill
1711	Floor Distribution board "A" layout, poultry feed mill
1712	General Mechanical Legend, poultry feed mill
1713	Floor Plan Water Supply layout poultry feed mill
1714	Floor Plan Water Supply layout poultry feed mill cont'd
1715	Floor Plan drainage layout
1716	Floor Plan drainage layout cont'd
1717	Ground Plan air conditioning layout poultry feed mill
1718	Water meter and inspection chamber details poultry feed mill
1719	Septic tank and soakaway details poultry feed mill
1720	Fencing details poultry feed mill
1721	Footing 1poultry feed mill
1722	Ground beam 1: Span 1 poultry feed mill
1723	Ground beam 1: Span 2 poultry feed mill
1724	Ground beam 1: Span 3 poultry feed mill
1725	Column P1 poultry feed mill
1726	Column P2 poultry feed mill
1727	Lintel poultry feed mill
1728	Tie Beam 1: Span 1 poultry feed mill
1729	Tie Beam 1: Span 2 poultry feed mill
1730'	Tie Beam 1: Span 3 poultry feed mill

2. Construction of Fish Feed Mill + Packaging Store

1800	Site and block plans for the Fish and Poultry Feed Mills
1801	Foundation Plan
1802	Foundation Sections
1803	Ground Floor Plan
1804	First Floor Plan
1805	Roof Plan
1806	Section A-A
1807	Front and Back View
1808	Left and Right View
1809	Fish Feed Production Line
1810	Electrical Legend
1811	Electrical Legend
1812	Floor Plan Lighting Points
1813	Floor Plan Lighting Points
1814	Floor Plan Power Points
1815	Floor Plan Power Points
1816	Floor Plan Power Points
1817	Electrical Panel Detailed for sub -L4 panel
1818	Complete Earthing
1819	Floor Plan Distribution Board 'A' layout
1820	Service Consumer Unit 'B'
1821	Schematic diagram of gent conventional fire alarm system (F.A.S)

1822	Proposed electrical schematic layout for loads to be connected to grid network and generator
1823	General notes on electrical installations
1824	Technical Specification
1825	General Mechanical Legend
1826	Floor Plan Water Supply Layout
1827	Floor Plan Water Supply/Air Conditioning Layout
1828	Floor Plan Drainage Layout
1829	Drainage Layout
1830	Floor Plan Drainage/ Air Conditioning Layout
1831	Floor Plan Air Conditioning Layout
1832	Water Meter and Inspection Chamber Details
1833	Septic Tank and Soak Away Pit Details
1834	Reinforcement of Foundation Footing B1
1835	Reinforcement of Foundation Footing B2
1836	Reinforcement of Column C1
1837	Reinforcement of Ground Beam
1838	Reinforcement of Ground Beam
1839	Reinforcement of Lintel
1840	Reinforcement of Tie Beam
1841	Reinforcement of Tie Beam

3: Construction + Equipment of one (01) Modern Slaughter House

1300	Site and Situation Plans for the Modern Slaughter House
1301	Foundation Plan
1302	Ground Plan
1303	Roof Plan
1304	Section A-A
1305	Section B-B
1306	Front and Rear View
1307	Left and Right View
1308	Roof Plan
1309	Left, Right, Front and Back Views
1310	Electrical Legend
1311	Floor Plan Lighting Points
1312	Floor Plan Power Points
1313	Complete Earthing
1314	Floor Plan Distribution Board 'A' Layout
1315	Floor Plan Distribution Board 'B' Layout
1316	Proposed electrical schematic layout for loads
1317	General Mechanical Legend
1318	Floor Plan Water Supply Layout
1319	Floor Plan Water Supply Layout
1320	Floor Plan Drainage Layout
1321	Floor Plan Drainage Layout

1322	Floor Plan Air Conditioning Layout
1323	Water Meter and Inspection Chamber Details
1324	Septic Tank and Soak Away Pit Details
1325	Fencing for the Modern Slaughter House
1326	Reinforcement of Foundation Footing S1
1327	Reinforcement of Foundation Footing S2
1328	Reinforcement of Ground Beam
1329	Reinforcement of Ground Beam
1330	Reinforcement of Ground Beam
1331	Reinforcement of Ground Beam
1332	Reinforcement of Ground Beam
1333	Reinforcement of Ground Beam
1334	Reinforcement of Ground Beam
1335	Reinforcement of Ground Beam
1336	Reinforcement of Column P1
1337	Reinforcement of Column P2
1338	Reinforcement of Lintel
1339	Reinforcement of Tie Beams
1340	Reinforcement of Tie Beams
1341	Reinforcement of Tie Beams
1342	Reinforcement of Tie Beams
1343	Reinforcement of Tie Beams
1344	Reinforcement of Tie Beams
1345	Reinforcement of Tie Beams
1346	Reinforcement of Tie Beams
1347	Reinforcement of Tie Beams

Supplementary Information

A. INDICATIVE LOCATION OF WORKS

Lot 1a: The construction of 7 pasture demonstration centers

	DIVISION	SUBDIVISION	LOCATION
1	Boyo	Fundong	Fundong
2	Bui	Kumbo	Tadu
3	Donga Mantung	Misaje	Between Misaje and Dumbu
4	Mezam	Santa	Santa Coffee Estate
5	Menchum	Wum	WADA
6	Momo	Batibo	Gwofon
7	Ngoketunjia	Babessi	Babungo
	T0tal		7

Lot 1b: The construction of 20 Zoo-technical and veterinary centres

BOYO DIVISION		BUI DIVISION		DONGA MANTUNG DIVISION		MEZAM DIVISION		MENCHUM DIVISION		MOMO DIVISION		NGOKETUNJIA DIVISION	
Sub division	Location	Sub division	Location	Sub division	Location	Sub division	Location	Sub division	Location	Sub division	Location	Sub division	Location
FUNDONG	Fundong	KUMBO		NKAMBE	Nkambe	BDA 1		WUM	Wum	MBENGWI		NDOP	Bambalang
BELO	Belo	JAKIRI	Jakiri	NDU	Ndu	BDA 2		MENCHUM VALLEY	Benakuma	BATIBO	Batibo	BALIKUMBAT	Bafanji
NJINIKOM		MBVEN		MISAJE	Misaje	BDA 3		FUNGOM	Zhoa	WIDIKUM		BABESSI	Babessi
BUM		OKU	Elak	AKO	Ako	BAFUT	Mundum	FURU-AWA		NGIE	Andek		
		NKUM		NWA		BALI				NJIKWA			
		NONI	Nkor			SANTA	Pinyin						
						TUBAH	Bambui						
TOTAL	2	TOTAL	3	TOTAL	4	TOTAL	8	TOTAL	3	TOTAL	2	TOTAL	3
							20						

Lot 1c: Veterinary Control posts

	DIVISION	SUBDIVISION	LOCATION
1	Donga Mantung	Ako	Abonshie
2	Donga Mantung	Nwa	Sabon Gari
3	Mezam	Santa	Matazem
4	Menchum	Menchum valley	Bawuru
5	Menchum	Fungom	Esu
	Total		5

Lot 1d: construction of 50 meat sale slabs

BOYO DIVISION		BUI DIVISION		DONGA MANTUNG DIVISION		MEZAM DIVISION		MENCHUM DIVISION		MOMO DIVISION		NGOKETUNJIA DIVISION	
FUNDONG	Fundong	KUMBO	Kumbo	NKAMBE	Nkambe old market Binka market	BDA 1	Mendankwe	WUM	Wum	MBENGWI	Acha Tugi	NDOP	Bamuka Bamessing
BELO	Belo Mbessa	JAKIRI	Jakiri	NDU	Ndu Nkumbuw	BDA 2	Mile 08 Cow boy junction ngomgham	MENCHUM VALLEY	Befang Benakuma	BATIBO	Guzang	BALI KUMBAT	Bali kumbat
NJINIKOM	Njinikom	MBVEN	Mbiame	MISAJE	Misaje Dumbu	BDA 3	Nkwen	FUNGOM	Weh	WIDIKUM	Widikum	BABESSI	Babungo Babessi Baba I
BUM	Bun-Bua	OKU	Tolon Ibal kevu	AKO	Ako	BAFUT	Bafut market	FURU-AWA	Furu-awa	NGIE	Andek		
		NKUM	Tatum	NWA	Sabon Gari	BALI	Bali (Njenka)			NJIKWA	Oshie		
		NONI	Nkor Lasin			SANTA	Santa Pinyin Akum						
						TUBAH	Bambui Market, Sabga Big Babanki						
TOTAL	5	TOTAL	9	TOTAL	8	TOTAL	12	TOTAL	5	TOTAL	5	TOTAL	6
50													

Lot 1e: The construction of 15 small slaughter houses

BOYO DIVISION		BUI DIVISION		DONGA MANTUNG DIVISION		MEZAM DIVISION		MENCHUM DIVISION		MOMO DIVISION		NGOKETUNJIA DIVISION	
FUNDONG	Fundong	KUMBO		NKAMBE	Nkambe	BDA 1		WUM		MBENGWI	Acha Tugi	NDOP	Bamunka
BELO		JAKIRI	Jakari	NDU		BDA 2		MENCHUM VALLEY	Benakuma	BATIBO		BALI KUMBAT	
NJINIKOM		MBVEN		MISAJE	Misaje	BDA 3		FUNGOM	Bafmeng	WIDIKUM		BABESSI	Babungo
BUM	Fonfuka	OKU	Elak	AKO		BAFUT		FURU-AWA		NGIE			
		NKUM		NWA		BALI	Nchie Matua			NJIKWA	Nkun		
		NONI				SANTA	Mile 12 Njong						
						TUBAH	Bambili						
TOTAL	2	TOTAL	2	TOTAL	2	TOTAL	3	TOTAL	2	TOTAL	2	TOTAL	2
15													

Lot 1f: The rehabilitation of Bui divisional veterinary clinic in Kumbo
Lot 1g : The rehabilitation of Donga-Mantung divisional veterinary clinic in Nkambe
Lot 1 h: The rehabilitation of regional/Mezam Divisional veterinary clinic in Bamenda
Lot 1(I): Construction of 4 divisional veterinary clinics in Fundong, Mbengwi, Wum and Ndop
As follow:

	DIVISION	SUBDIVISION	LOCATION
1	Boyo	Fundong	Fundong-construction
2	Bui	Kumbo	Kumbo-rehabilitation
3	Donga Mantung	Nkambe	Nkambe-Rehabilitation
4	Mezam	Bamenda ii	Veterinary junction-rehabilitation
5	Menchum	Wum	Wum-construction
6	Momo	Mbengwi	Mbengwi-construction
7	Ngoketunjia	Ndop	Bamunka –construction
	Total		7

Lot 1J : The construction of a fish farming centre

	DIVISION	SUBDIVISION	LOCATION
1	Mezam	Tubah	Baforkum
	Total		1

LOT 2: CONSTRUCTION AND EQUIPMENT OF A 3-LINE MODERN SLAUGHTER HOUSE, THE CONSTRUCTION OF 3 POULTRY FEED MILLS AND THE CONSTRUCTION OF A FISH FEED MILL

Lot 2A : The construction and equipment of a 3-line modern slaughter house

	DIVISION	SUBDIVISION	LOCATION
1	Mezam	Bamenda 1	Mendankwe
	T0tal		1

Lot 2B : The construction and equipment of 3 poultry feed mills

	DIVISION	SUBDIVISION	LOCATION
1	Bui	Kumbo	Kumbo
1	Mezam	Bamenda 2	Nsongwa
1	Mezam	Bamenda 3	Menda(mile 3)
	Total		3

Lot 2C : The construction and equipment of a fish feed mill

	DIVISION	SUBDIVISION	LOCATION
1	Mezam	Bamenda 3	Menda(mile 3)
	T0tal		1

Note: during Works execution some site locations may change due to government exigencies and priorities.

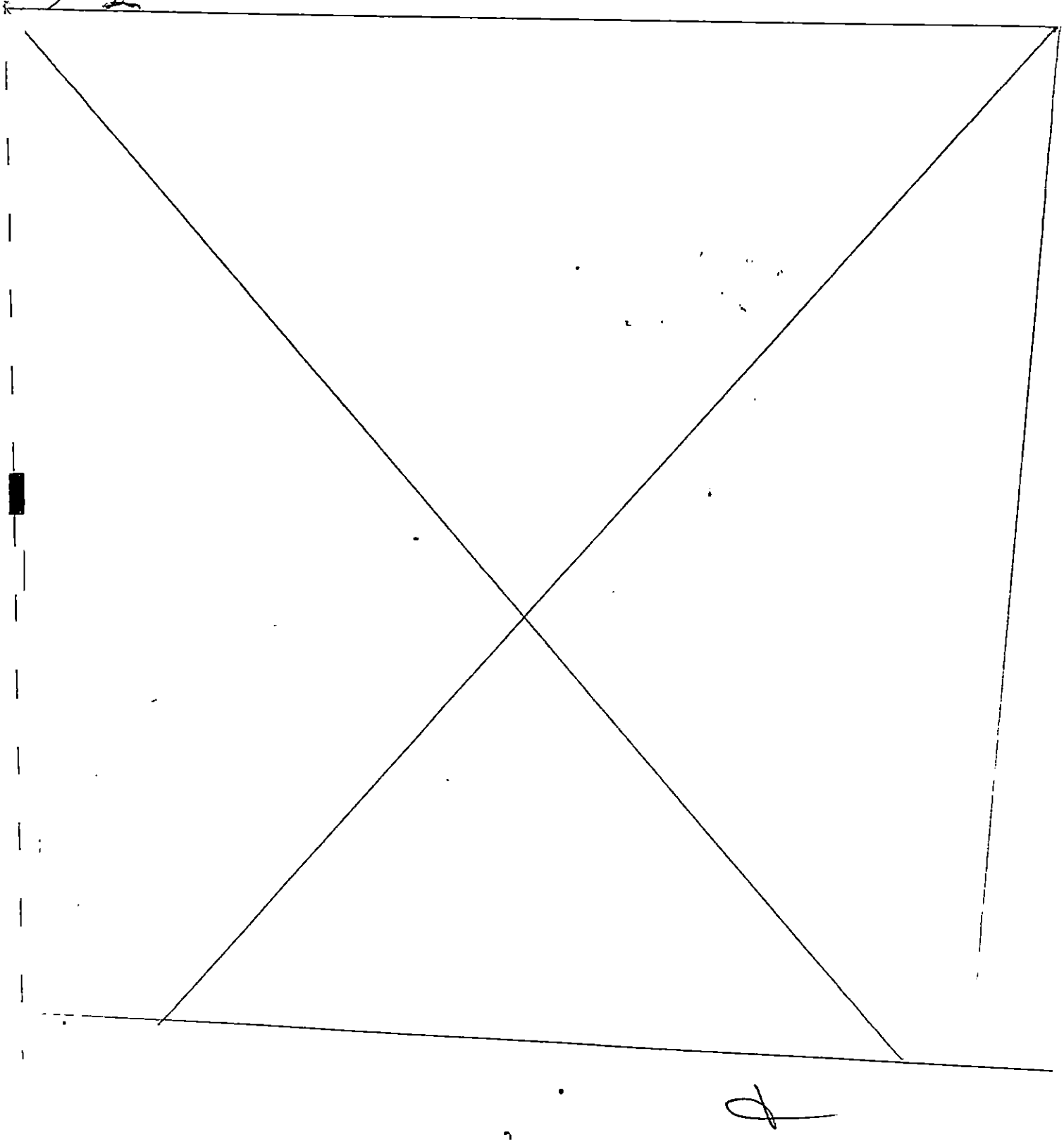
A. Environmental concerns

The contractor will be required to prepare an Environmental impact Notice for pasture demonstration centres and slaughter slabs

The contractor will equally be required to carry out an Environmental Impact assessment for modern slaughter house, poultry feed mills and fish feed mill.

PART 3

Conditions of Contract and Contract Forms



Section VII. General Conditions of Contract

These General Conditions of Contract (GCC), read in conjunction with the Particular Conditions of Contract (PCC) and other documents listed therein, should be a complete document expressing fairly the rights and obligations of both parties.

These General Conditions of Contract have been developed on the basis of considerable international experience in the drafting and management of contracts, bearing in mind a trend in the construction industry towards simpler, more straightforward language. The GCC can be used for both smaller admeasurement contracts and lump sum contracts.

Table of Clauses

General Conditions of Contract

A. General

1. Definitions 1.1 Boldface type is used to identify defined terms.

(a) The 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.

(b) The Activity Schedule is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.

(c) The Adjudicator is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 23.

(d) Bank means the financing institution **named in the PCC**.

(e) Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.

(f) Compensation Events are those defined in GCC Clause 41 hereunder.

(g) The Completion Date is the date of completion of the Works as certified by the Project Manager, in accordance with GCC Sub-Clause 52.1.

(h) The Contract is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.

(i) The Contractor is the party whose Bid to carry out the Works has been accepted by the Employer.

(j) The Contractor's Bid is the completed bidding document submitted by the Contractor to the Employer.

(k) The Contract Price is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.

(l) Days are calendar days; months are calendar months.

(m) Dayworks are varied work inputs subject to payment on a

time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.

(n) A Defect is any part of the Works not completed in accordance with the Contract.

(o) The Defects Liability Certificate is the certificate issued by Project Manager upon correction of defects by the Contractor.

(p) The Defects Liability Period is the period **named in the PCC** pursuant to Sub-Clause 33.1 and calculated from the Completion Date.

(q) Adjudicator means the single person appointed under Clause 23.

(r) 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, include calculations and other information provided or approved by the Project Manager for the execution of the Contract.

(s) The Employer is the party who employs the Contractor to carry out the Works, **as specified in the PCC.**

(t) Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

(u) "In writing" or "written" means hand-written, type-written, printed or electronically made, and resulting in a permanent record;

(v) The Initial Contract Price is the Contract Price listed in the Employer's Letter of Acceptance.

(w) The Intended Completion Date is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is **specified in the PCC.** The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.

(x) Materials are all supplies, including consumables, used by the Contractor for incorporation in the Works.

(y) Plant is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.

(z) The Project Manager is the person **named in the PCC**

(or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.

(aa) PCC means Particular Conditions of Contract

(bb) The Site is the area **defined as such in the PCC.**

(cc) Site Investigation Reports are those that were included in the bidding documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.

(dd) Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.

(ee) The Start Date is **given in the PCC.** It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

(ff) A Subcontractor is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.

(gg) Temporary Works are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.

(hh) A Variation is an instruction given by the Project Manager which varies the Works.

(ii) The Works are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as **defined in the PCC.**

2. Interpretation

2.1 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.

2.2 If sectional completion is **specified in the PCC,** references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion

Date for the whole of the Works).

2.3 The documents forming the Contract shall be interpreted in the following order of priority:

(a) Agreement,

(b) Letter of Acceptance,

(c) Contractor's Bid,

(d) Particular Conditions of Contract,

(e) General Conditions of Contract,

(f) Specifications,

(g) Drawings,

(h) Bill of Quantities,[10] and

(i) any other document **listed in the PCC** as forming part of the Contract.

3. Language and Law

3.1 The language of the Contract and the law governing the Contract are **stated in the PCC.**

4. Project Manager's Decisions

4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.

5. Delegation

5.1 Otherwise specified in the PCC, the Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may revoke any delegation after notifying the Contractor.

6. Communications

6.1 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 delivered.

7. Subcontracting

7.1 The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations.

8. Other Contractors

8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as **referred to in the PCC.** The Contractor shall also provide

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[10] *In lump sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule."*

facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.

9. Personnel and Equipment

9.1 The Contractor shall employ the key personnel and use the equipment identified in its Bid, to carry out the Works or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.

9.2 If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

10. Employer's and Contractor's Risks

10.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Employer's Risks

11.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:

(a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to

(i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or

(ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.

(b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage

due to

(a) a Defect which existed on the Completion Date,

(b) an event occurring before the Completion Date, which was not itself an Employer's risk, or

(c) the activities of the Contractor on the Site after the Completion Date.

12. Contractor's Risks

12.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risks.

13. Insurance

13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles **stated in the PCC** for the following events which are due to the Contractor's risks:

(a) loss of or damage to the Works, Plant, and Materials;

(b) loss of or damage to Equipment;

(c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and

(d) personal injury or death.

13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

13.4 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.

13.5 Both parties shall comply with any conditions of the insurance

policies.

14. Site Data

14.1 The Contractor shall be deemed to have examined any Site Data **referred to in the PCC,** supplemented by any information available to the Contractor.

15. Contractor to Construct the Works

15.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.

16. The Works to Be Completed by the Intended Completion Date

16.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.

17. Approval by the Project Manager

17.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, for his approval.

17.2 The Contractor shall be responsible for design of Temporary Works.

17.3 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

17.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.

17.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.

18. Safety

18.1 The Contractor shall be responsible for the safety of all activities on the Site.

19. Discoveries

19.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.

20. Possession of the Site

20.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date **stated in the PCC,** the Employer shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.

21. Access to the

21.1 The Contractor shall allow the Project Manager and any person

Site

authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

22. Instructions, Inspections and Audits

22.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.

22.2 The Contractor shall permit, and shall cause its Subcontractors and sub-consultants to permit, the Bank and/or persons appointed by the Bank to inspect the Site and/or the accounts and records of the Contractor and its sub-contractors relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Contractor's and its Subcontractors' and sub-consultants' attention is drawn to Sub-Clause 57.1 which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under Sub-Clause 22.2 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).

23. Appointment of the Adjudicator

23.1 The Adjudicator shall be appointed jointly by the Employer and the Contractor, at the time of the Employer's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority **designated in the PCC**, to appoint the Adjudicator within 14 days of receipt of such request.

23.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority **designated in the PCC** at the request of either party, within 14 days of receipt of such request.

24. Procedure for Disputes

24.1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within 14 days of the notification of the Project Manager's decision.

24.2 The Adjudicator shall give a decision in writing within 28 days

of receipt of a notification of a dispute.

24.3 The Adjudicator shall be paid by the hour at the **rate specified in the PCC**, together with reimbursable expenses of the types **specified in the PCC**, and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision shall be final and binding.

24.4 The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place specified **in the PCC.**

B. Time Control

25. Program

25.1 Within the time **stated in the PCC**, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.

25.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.

25.3 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period **stated in the PCC.** If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount **stated in the PCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of a lump sum contract, the Contractor shall provide an updated Activity Schedule within 14 days of being instructed to by the Project Manager.

25.4 The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.

26. Extension of

26.1 The Project Manager shall extend the Intended Completion Date

the Intended Completion Date

if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.

26.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

27. Acceleration

27.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Contractor.

27.2 If the Contractor's priced proposals for an acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.

28. Delays Ordered by the Project Manager

28.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

29. Management Meetings

29.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

29.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

30. Early Warning

30.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project

Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

30.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

C. Quality Control

31. Identifying Defects

31.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.

32. Tests

32.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification 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.

33. Correction of Defects

33.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the PCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

33.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

34. Uncorrected Defects

34.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.

D. Cost Control

35. Contract Price

35.1 In the case of an admeasurement contract, the Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for

each item.

35.2 In the case of a lump sum contract, the Activity Schedule shall contain the priced activities for the Works to be performed by the Contractor. The Activity Schedule is used to monitor and control the performance of activities on which basis the Contractor will be paid. If payment for Materials on Site shall be made separately, the Contractor shall show delivery of Materials to the Site separately on the Activity Schedule.

36. Changes in the Contract Price

36.1 In the case of an admeasurement contract:

(a) If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change.

(b) The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Employer.

(c) If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

36.2 In the case of a lump sum contract, the Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.

37. Variations

37.1 All Variations shall be included in updated Programs, and, in the case of a lump sum contract, also in the Activity Schedule, produced by the Contractor.

37.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.

37.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.

37.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

37.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.

37.6 In the case of an admeasurement contract, if the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in Sub-Clause 38.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.

38. Cash Flow Forecasts

38.1 When the Program, or, in the case of a lump sum contract, the Activity Schedule, is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

39. Payment Certificates

39.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.

39.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.

39.3 The value of work executed shall be determined by the Project Manager.

39.4 The value of work executed shall comprise:

(a) In the case of an admeasurement contract, the value of the quantities of work in the Bill of Quantities that have been completed; or

(b) In the case of a lump sum contract, the value of work executed shall comprise the value of completed activities in the Activity Schedule.

39.5 The value of work executed shall include the valuation of

Variations and Compensation Events.

39.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

40. Payments

40.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within 28 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid penalty on the late payment in the next payment. Penalty 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 penalty for each of the currencies in which payments are made.

40.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid penalty upon the delayed payment as set out in this clause. Penalty shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.

40.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.

40.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

41. Compensation Events

41.1 The following shall be Compensation Events:

(a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1.

(b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.

(c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.

(d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.

(e) The Project Manager unreasonably does not approve a subcontract to be let.

(f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.

(g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.

(h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.

(i) The advance payment is delayed.

(j) The effects on the Contractor of any of the Employer's Risks.

(k) The Project Manager unreasonably delays issuing a Certificate of Completion.

41.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

41.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.

41.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning or not having

cooperated with the Project Manager.

42. Tax

42.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 28 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC Clause 44.

43. Currencies

43.1 Where payments are made in currencies other than the currency of the Employer's country **specified in the PCC,** the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor's Bid.

44. Price Adjustment

44.1 Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the PCC.** If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type indicated below applies to each Contract currency:

$$P_c = A_c + B_c \ Imc/Ioc$$

where:

P_c is the adjustment factor for the portion of the Contract Price payable in a specific currency "c."

A_c and B_c are coefficients[11] **specified in the PCC,** representing the nonadjustable and adjustable portions, respectively, of the Contract Price payable in that specific currency "c;" and

Imc is the index prevailing at the end of the month being invoiced and Ioc is the index prevailing 28 days before Bid opening for inputs payable; both in the specific currency "c."

44.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations

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[11] *The sum of the two coefficients A_c and B_c should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulae for all currencies, since coefficient A, for the nonadjustable portion of the payments, is a very approximate figure (usually 0.15) to take account of fixed cost elements or other nonadjustable components. The sum of the adjustments for each currency are added to the Contract Price.*

in costs.

45. Retention

45.1 The Employer shall retain from each payment due to the Contractor the proportion **stated in the PCC** until Completion of the whole of the Works.

45.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC 51.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected. The Contractor may substitute retention money with an "on demand" Bank guarantee.

46. Liquidated Damages

46.1 The Contractor shall pay liquidated damages to the Employer at the rate per day **stated in the PCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount **defined in the PCC.** The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

46.2 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 Sub-Clause 40.1.

47. Bonus

47.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day **stated in the PCC** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.

48. Advance Payment

48.1 The Employer shall make advance payment to the Contractor of the amounts **stated in the PCC** by the date **stated in the PCC,** 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 shall not be charged on the advance payment.

48.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.

48.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.

49. Securities

49.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount **specified in the PCC**, by a bank or surety acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee, and until one year from the date of issue of the Completion Certificate in the case of a Performance Bond. The termination of contract due to fundamental breach of contract by Contractor shall constitute sufficient grounds for the forfeiture of the Performance security.

50. Dayworks

50.1 If applicable, the Dayworks rates in the Contractor's Bid shall be used only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.

50.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.

50.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

51. Cost of Repairs

51.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

52. Completion

52.1 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the whole of the Works is completed.

53. Taking Over

53.1 The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.

54. Final Account

54.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.

55. Operating and Maintenance Manuals

55.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates **stated in the PCC.**

55.2 If the Contractor does not supply the Drawings and/or manuals by the dates **stated in the PCC** pursuant to GCC Sub-Clause 55.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount **stated in the PCC** from payments due to the Contractor.

56. Termination

56.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

56.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:

(a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;

(b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 28 days;

(c) the Employer or the Contractor is made bankrupt or goes

into liquidation other than for a reconstruction or amalgamation;

(d) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 84 days of the date of the Project Manager's certificate;

(e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;

(f) the Contractor does not maintain a Security, which is required;

(g) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as **defined in the PCC**; or

(h) if the Contractor, in the judgment of the Employer, has engaged in corrupt or fraudulent practices in competing for or in executing the Contract, pursuant to GCC Clause 57.1.

56.3 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 56.2 above, the Project Manager shall decide whether the breach is fundamental or not.

56.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

56.5 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

57. Fraud and Corruption

57.1 If the Employer determines that the Contractor and/or any of its personnel, or its agents, or its Subcontractors, sub-consultants, services providers, suppliers and/or their employees has engaged in corrupt, fraudulent, collusive, coercive or obstructive 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 Clause 56 shall apply as if such expulsion had been made under Sub-Clause 56.5 [Termination by Employer].

57.2 Should any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the execution of the Works, then that employee

shall be removed in accordance with Clause 9.

57.3 For the purposes of this Sub-Clause:

(i) "corrupt practice" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party[12];

(ii) "fraudulent practice" is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation[13];

(iii) "collusive practice" is an arrangement between two or more parties[14] designed to achieve an improper purpose, including to influence improperly the actions of another party;

(iv) "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party[15];

(v) "obstructive practice" is

(aa) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

(bb) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under Sub-Clause 22.2.

58. Payment upon Termination

58.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered

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12 *"Another party" refers to a public official acting in relation to the procurement process or contract execution]. In this context, "public official" includes Islamic Development Bank staff and employees of other organizations taking or reviewing procurement decisions.*

13 *"Party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.*

14 *"Parties" refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.*

15 *"Party" refers to a participant in the procurement process or contract execution.*

less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as **indicated in the PCC.** Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

58.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

59. Property

59.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default.

60. Release from Performance

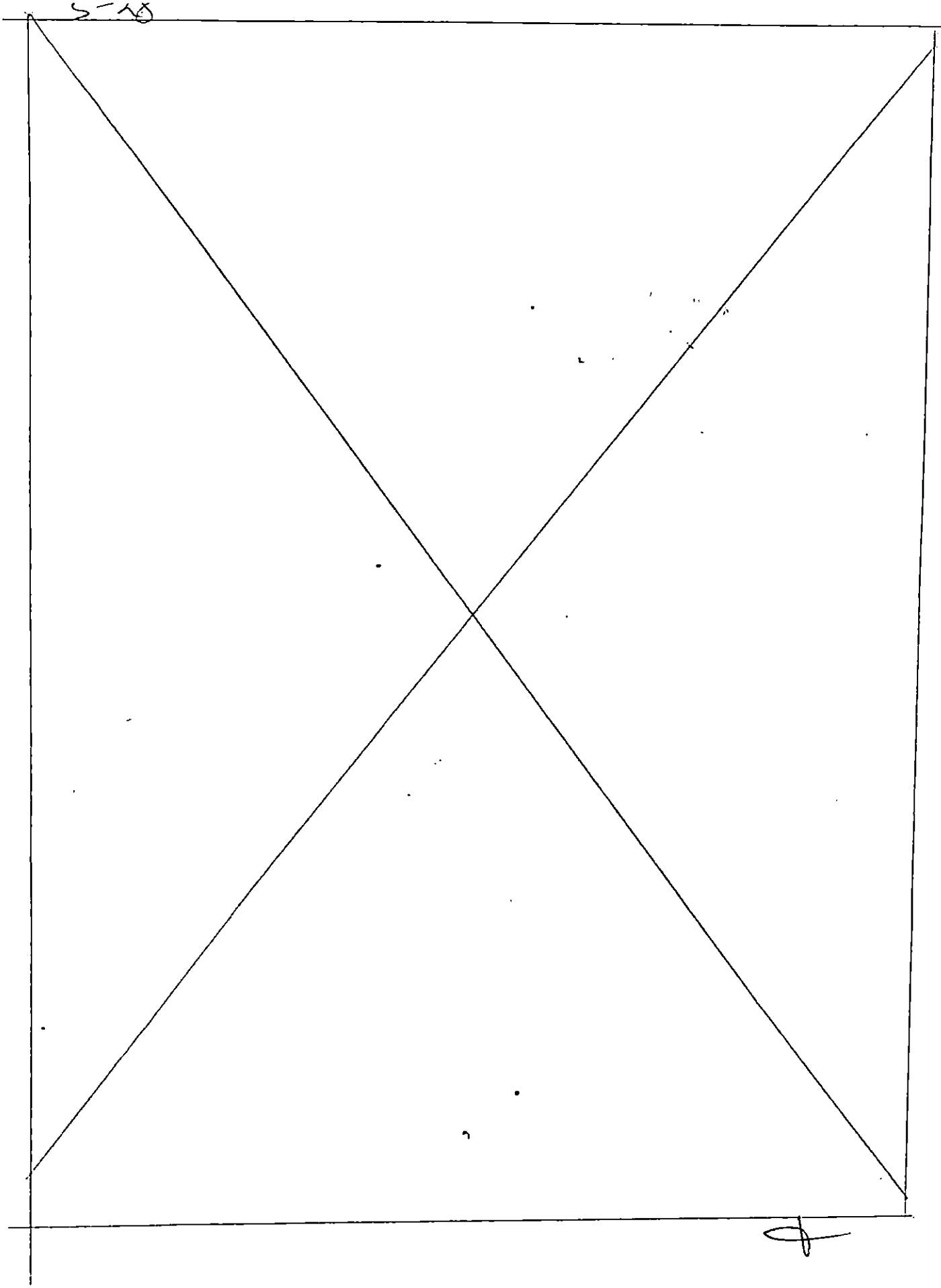
60.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

61. Suspension of Bank Financing / Loan or Credit

61.1 In the event that the Bank suspends the Financing, Loan or Credit to the Employer, from which part of the payments to the Contractor are being made:

(a) The Employer is obligated to notify the Contractor of such suspension within 7 days of having received the Bank's suspension notice.

(b) If the Contractor has not received sums due it within the 28 days for payment provided for in Sub-Clause 40.1, the Contractor may immediately issue a 14-day termination notice.



Section VIII. Particular Conditions of Contract

Except where otherwise indicated, all PCC *should be filled in by the* Employer *prior to issuance of the Bidding Documents. Schedules and reports to be provided by the* Employer *should be annexed.*

A. General	
GCC 1.1 (d)	The financing institution is: Islamic Development Bank (IDB)
GCC 1.1 (s)	The Employer is: **The Minister Delegate at the Presidency in Charge of Public Contracts (MINMAP) on behalf of :** **The Livestock and Fisheries Development Project (LIFIDEP)** P.O Box 142 Ayaba Street, Bamenda. Telephone (+237) 691 046 397 e-mail: lifidepnwr@gmail.com
GCC 1.1 (v)	The Intended Completion Date for the whole of the Works shall be: **lot 1: twelve (12) months** **lot 2: twelve (12) months**
GCC 1.1 (y)	The Project Engineer is: **Joint Venture ORICAA/Teamwork Global Associates. P. O Box 961 Bamenda.** The State Engineer is: **North West Regional Delegate of Public Works** The Project Manager is: **The Project Coordinator of LIFIDEP.**
GCC 1.1 (aa)	The Site is located at : Lot 1: **a) The construction of 7 demonstration and multiplication centers (class room and office units)** in Fundong, Tadu, Misaje/Dumbu, Santa (Coffee Estate), Wum(WADA) Gwofon and Babungo b) **Construction/renovation of 7 divisional veterinary clinics** in Fundong, Kumbo, Nkambe, Bamenda II, Wum, Mbengwi and Bamunka **c) Construction of 20 sub divisional veterinary centers** in Fundong, Belo, Jakiri, Elak, Nkor, Nkambe, Ndu, Misaje, Ako, Mundum, Pinyin, Bambui, Wum, Benakuma, Zhoa, Batibo, Andek, Bambalang, Bafanji and Babessi. **d) Construction of 5 veterinary control posts in Abonshie,** Sabon Gari, Matazem, Bawuru and Esu

	e) Construction of 50 meat sale slabs in as follows: Fundong, Belo, Mbessa, Njinikom, Bua-Bua, Kumbo, Jakiri, Mbiame, Tolon, Ibal, Kevu, Tatum, Nkor, Lasin, Nkambe old market, Binka market, Ndu, Ntumbaw, Misaje, Dumbu, Ako, Sabon Gari, Mendankwe, Mile 8, Ngomgham, Nkwen, Bafut market, Bali(Njenka), Santa, Pinyin, Akum, Bambui Market, Sabga, Big Babanki, Wum, Befang, Benakuma, Weh, Fura-awa, Acha-Tugi, Guzang, Widikum, Andek, Oshie, Bamuka, Bamessing, Balikumbat, Babungo, Babessi and Baba. **f) Construction of a fish farming center in** Baforkum (Bambui) **g) Construction of 15 small slaughter houses in:** Fundong, Fonfuka, Jakiri, Elak, Nkambe, Misaje, Bali, Njong, Bambili, Benakuma, Bafmeng, Acha-Tugi, Nkun, Bamunka and Babungo. <u>Lot 2:</u> **d) The construction and equipment of 3 poultry feed mills in:** Kumbo, Nsongwa and Nkwen. **e) Construction of a fish feed mill with fish in:** Nkwen **f) Construction of modern slaughter house in :** Mendangkwe
GCC 1.1 (dd)	The Start Date shall be **the date of notification by the employer to start work.**
GCC 1.1 (hh)	**The Works consist of :** **Lot 1: The construction of 7 demonstration and multiplication centers (class room and office units), construction/renovation of 7 divisional veterinary clinics, construction of 20 sub divisional veterinary centers, construction of 5 veterinary control posts, construction of 50 meat sale slabs, construction of a fish farming center, construction of 15 small slaughter houses.** **Lot 2: The construction and equipment of 3 poultry feed mills, construction of a fish feed mill with fish Pelleting with extruder, construction of modern slaughter house.**
GCC 2.2	Sectional Completions shall be applicable
GCC 2.3(i)	The following documents also form part of the Contract: (a) Agreement, (b) Letter of Acceptance, (c) Contractor's Bid, (d) Particular Conditions of Contract,

	(e) General Conditions of Contract, (f) Specifications, (g) Drawings, (h) Bill of Quantities,[16] and any other document **listed in the PCC** as forming part of the Contract.
GCC 3.1	The language of the contract is **English or French** The law that applies to the Contract is the law of **Cameroon**
GCC 5.1	The Project manager **may** delegate any of his duties and responsibilities.
GCC 8.1	Schedule of other contractors: [*insert Schedule of Other Contractors, if appropriate*]
GCC 13.1	The minimum insurance amounts and deductibles shall be: (a) for loss or damage to the Works, Plant and Materials: [*insert amounts*]. (b) For loss or damage to Equipment: [*insert amounts*]. (c) for loss or damage to property (except the Works, Plant, Materials, and Equipment) in connection with Contract [*insert amounts*]. (d) for personal injury or death: (i) of the Contractor's employees: [*amount*]. (ii) of other people: [*amount*].
GCC 14.1	Site Data are: [*list Site Data*]
GCC 20.1	The Site Possession Date(s) shall be: [*insert location(s) and date(s)*]
GCC 23.1 & GCC 23.2	Appointing Authority for the Adjudicator: **North West Regional Delegate of Public Works**
GCC 24.3	Hourly rate and types of reimbursable expenses to be paid to the Adjudicator: **10 000 Franc CFA per hour: Reimbursable Transport Expenses.**
GCC 24.4	Institution whose arbitration procedures shall be used: ***"United Nations Commission on International Trade Law (UNCITRAL) Arbitration Rules:*** Any dispute, controversy, or claim arising out of or relating to this

[16] *In lump sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule."*

	Contract, or breach, termination, or invalidity thereof, shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules as at present in force." The place of arbitration shall be: [*BAMENDA CAMEROON*]
B. Time Control	
GCC 25.1	The Contractor shall submit for approval a Program for the Works within **30** days from the date of the Letter of Acceptance.
GCC 25.3	The period between Program updates is **monthly.** The amount to be withheld for late submission of an updated Program is: **Twenty five thousand (25 000) FCFA per day delayed.**
C. Quality Control	
GCC 33.1	The Defects Liability Period is: **12 months.**
GCC 35.2	The total lumpsum contract Price is: .....Exclusive of taxes
D. Cost Control	
GCC 42.1	The IDB financing **does not** cover the payment of taxes, duties, fees and any imposition of similar nature.
GCC 43.1	The currency of the Employer's country is: **Francs CFA**
GCC 44.1	The Contract **is not** subject to price adjustment in accordance with GCC Clause 44, and the following information regarding coefficients **does not** apply.
GCC 45.1	The proportion of payments retained is: **Ten percent (10 %).** **This amount can be replaced by a bank guarantee for the equivalent amount**
GCC 46.1	The liquidated damages for the whole of the Works are: **1/2000 of the initial amount of the contract per calendar day for the first thirty (30) days of late delivery and 1/1000 beyond 30 days lateness in delivery.** The maximum amount of liquidated damages for the whole of the Works is **10%** of the final Contract Price.
GCC 47.1	The Bonus for the whole of the Works is **Not applicable**
GCC 48.1	The Advance Payments shall be: **20%** of the contract price and shall be paid to the Contractor no later than 60 days against a submission of an advance

	payment guarantee of an equivalent amount.
GCC 49.1	The Performance Security amount is: 5 % of the contract price in the form of : (a) Bank Guarantee: **5% of contract price**
E. Finishing the Contract	
GCC 52	On completion of each site, the contractor will request in writing through the the Project Engineer for Provisional acceptance of the works. This will be done by a committee composed of: 1. The Project Coordinator LIFIDEP or his Representative: **Chairperson** 2. The Project Engineer: **Secretary** 3. A Representative of MIDENO: **Member** 4. The State Engineer: **Member** 5. The Project Procurement Expert of LIFIDEP: **Member** 6. 2 Representatives of the Ministry of Public Contracts: **Members** 7. Contractor or his Representative: **Member/Observer** After the defects liability period the final acceptance will be carried out by this same committee
GCC 55.1	The date by which operating and maintenance manuals are required is [LATEST: DATE OF REQUEST FOR PROVISIONAL ACCEPTANCE]. The date by which "as built" drawings are required is: **at presentation of last bill after Provisional acceptance.**
GCC 55.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required in GCC 58.1 shall be **200 000 FCFA**
GCC 56.2 (g)	The maximum number of days is: **days equivalent to 10% of contract amount as penalty for delays in execution.**
GCC 58.1	The percentage to apply to the value of the work not completed, representing the Employer's additional cost for completing the Works, is: **Ten percent (10%).**

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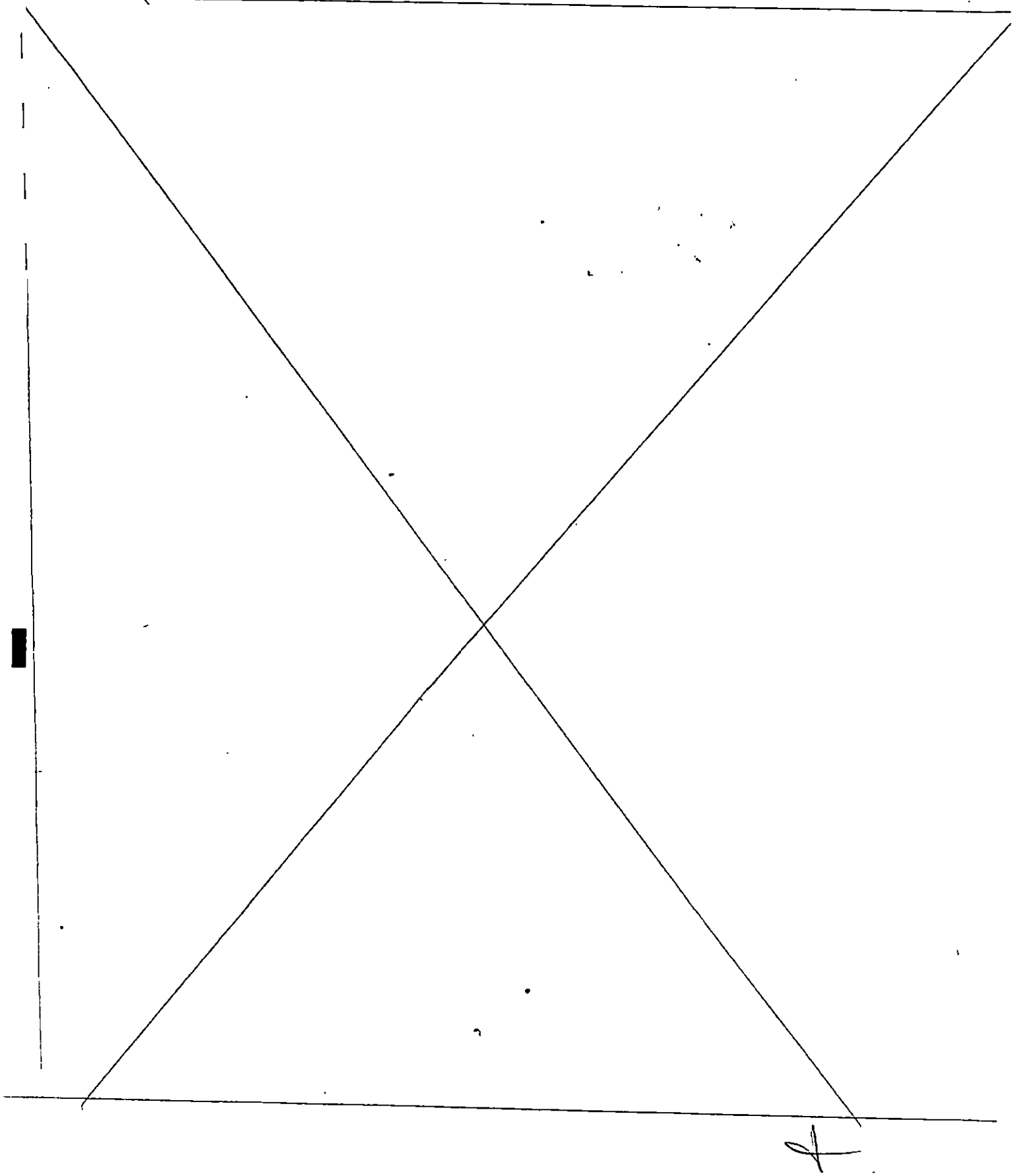

Section IX - Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

Table of Forms

Letter of Acceptance

[*On letterhead paper of the Employer*]

..... [*date*].....

To: ..... [*Name and address of the Contractor*] .....

Subject: ..... [*Notification of Award Contract No*]. .....

This is to notify you that your Bid dated .... [*insert date*] .... for execution of the ... .[*insert name of the contract and identification number, as given in the Appendix to Bid*] ..... for the Accepted Contract Amount of the equivalent of ..... .[*insert amount in numbers and words and name of currency*], as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose the of the Performance Security Form included in Section IX (Contract Forms) of the Bidding Document.

[*Choose one of the following statements:*]

We accept that _____[*insert the name of Adjudicator proposed by the Bidder*] be appointed as the Adjudicator.

[*or*]

We do not accept that _____[*insert the name of the Adjudicator proposed by the Bidder*] be appointed as the Adjudicator, and by sending a copy of this Letter of Acceptance to _____[*insert name of the Appointing Authority*], the Appointing Authority, we are hereby requesting such Authority to appoint the Adjudicator in accordance with ITB 42.1 and GCC 23.1.

Authorized Signature: .....

Name and Title of Signatory: .....

Name of Agency: .....

Attachment: Contract Agreement

Contract Agreement

THIS AGREEMENT made the . . . . . day of . . . . . ., ..., between . . . . [*Name and address of the Employer*]. . . . . (hereinafter "the Employer"), of the one part, and . . . . . [*Name and address of the Contractor*]. . . . .(hereinafter "the Contractor"), of the other part:

WHEREAS the Employer desires that the Works known as . . . . . [*Name of the Contract*]. . . . .should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.

(a) the Letter of Acceptance

(b) the Bid

(c) the Addenda Nos . . . . . [*insert addenda numbers if any*]. . . . .

(d) the Particular Conditions

(e) the General Conditions;

(f) the Specification

(g) the Drawings; and

(h) the completed Schedules,

3. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of . . . . . [*Name of the Beneficiary country*]. . . . .on the day, month and year indicated above.

Signed by: _____
for and on behalf of the Employer

in the
presence of: _____
Witness, Name, Signature, Address, Date

Signed by: _____
for and on behalf the Contractor

in the
presence of: _____
Witness, Name, Signature, Address, Date

Performance Security

[*Bank's Name, and Address of Issuing Branch or Office*]

Beneficiary: ..... [*Name and Address of Employer*] .....

Date: .....

Performance Guarantee No.: .....

We have been informed that . . . . . [*Name of the Contractor*]. . . . . (hereinafter called "the Contractor") has entered into Contract No. . . . . [*Reference number of the Contract*]. . . . . dated . . . . . .with you, for the execution of . . . . . [*Name of contract and brief description of Works*]. . . . . (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Contractor, we . . . . . [*Name of the Bank*]. . . . . hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of . . . . . [*Name of the currency and amount in figures*] [1]. . . . . (. . . . . [*amount in words*]. . . . .) such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the . . . . . Day of . . . . . , ... [2], and any demand for payment under it must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

. . . . . .

[*Seal of Bank and Signature(s)*]

Note –

All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.

[1] *The Guarantor shall insert an amount representing the percentage of the Contract Price specified in the Contract and denominated either in the currency(ies) of the Contract or a freely convertible currency acceptable to the Employer.*

[2] *Insert the date twenty-eight days after the expected completion date. The Employer should note that in the event of an extension of the time for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."*

Advance Payment Security

[*Bank's Name, and Address of Issuing Branch or Office*]

Beneficiary: ..... [*Name and Address of Employer*] .....
Date: .....
Advance Payment Guarantee No.: .....

We have been informed that . . . . . [*Name of the Contractor*]. . . . . (hereinafter called "the Contractor") has entered into Contract No. . . . . [*Reference number of the Contract*]. . . . . dated . . . . . .with you, for the execution of . . . . . [*Name of contract and brief description of Works*]. . . . . (hereinafter called "the Contract").

Furthermore, we understand that, according to the Conditions of the Contract, an advance payment in the sum . . . . . [*Name of the currency and amount in figures*] [1]. . . . . (. . . . . [*amount in words*]. . . . .) is to be made against an advance payment guarantee.

At the request of the Contractor, we . . . . . [*Name of the Bank*]. . . . . hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of . . . . . [*Name of the currency and amount in figures*]*. . . . . (. . . . . [*amount in words*]. . . . .) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor used the advance payment for purposes other than the costs of mobilization in respect of the Works.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to above must have been received by the Contractor on its account number . . . . . [*Contractor's account number*]. . . . . at . . . . . [*Name and address of the Bank*]. . . . . .

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as indicated in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that eighty (80) percent of the Contract Price has been certified for payment, or on the . . . day of . . . . . , ... [2], whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

. . . . . [*Seal of Bank and Signature(s)*]. . . . . .

Note -

All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.

1 The Guarantor shall insert an amount representing the amount of the advance payment denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Employer.

2 Insert the expected expiration date of the Time for Completion. The Employer should note that in the event of an extension of the time for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

Model Retention Fund

Bank.....
Reference of the guarantee: No.....

Addressed to [Indicate the Employer]
[Address of Employer]

Hereinafter referred to as the "the Employer"

Whereas..... [name and address of Supplier] hereinafter referred to "the Supplier' pledged, in execution of the contract, to carry out the supplies of [indicate the subject of the supplies]

Whereas it is stipulated in the contract that the retention fund fixed at 10% of the amount of the contract may be replaced by a joint guarantee,

Whereas we have agreed to provide the Supplier with this guarantee,
We,.....[*name and address of bank*]
Represented by.....[*names of signatories*] and hereinafter referred to as "the bank",

Hence, we hereby affirm that on behalf of the Supplier, we guarantee and are responsible to the Employer for a maximum amount of.....[*in figures and words*] corresponding to *10%* of the contract price

And we pledge to pay to the Employer within a maximum deadline of eight (8) weeks upon his simple written request declaring that the Supplier has not fulfilled his contractual obligations during the warranty period or is indebted to the Employer within the meaning of the contract amended where need be by its additional clauses, without being able to defer the payment nor raise any contest for whatever reason, any sum(s) within the limits of the amount equal to 10% of the total amount of the supplies featuring in the final statement, without the Employer having to prove or give the reasons nor the reason for the amount of the sum indicated above.

We hereby agree that no change or addendum or any other amendment shall release us of any obligation incumbent on us by virtue of this guarantee and we hereby incline to any amendment, addendum or change.

This guarantee shall enter into force upon signature. It shall be released with thirty (30) days from the date of the final acceptance of the supplies and upon release by the Employer.

Any request for payment formulated by the Employer by virtue of this guarantee should be done by registered mail with acknowledgement of receipt to reach the bank during the period of validity of this commitment.

This guarantee shall, for purposes of its interpretation and execution, be subject to Cameroon law. Cameron courts shall be the only jurisdictions competent to rule on this commitment and its consequences.

Signed and authenticated by the bank

At....., on.....

List of Banks and Financial Organizations authorized to issue bank cautions in public contracts.

BANKS

1. Afriland First Bank (FIRST BANK), B.P 11 834 Yaoundé
2. Banque Atlantique du Cameroun (BACM) B.P 2 933 DOUALA
3. Banque Gabonaise pour le Financement International(BGFIBANK) B.P 600 DOUALA
4. Banque Internationale du Cameroun pour l'Epargne et le Credit (BICEC); B.P 1925 DOUALA
5. Citibank Cameroun(CITIGROUP) B.P 4 571 DOUALA
6. Commercial Bank-Cameroon (CBC) B.P 4 004 DOUALA
7. Ecobank Cameroon (ECOBANK) B.P 582 DOUALA
8. National Financial Credit Bank (NFC Bank) B.P 6 578 Yaoundé
9. Société Commerciale de Banques-Cameroun (SCB-Cameroun) B.P 300 DOUALA
10. Société Générale Cameroun (SGC) B.P 4 042, DOUALA
11. Standard Chartered Bank Cameroon (SCBC) B.P 1 784, DOUALA
12. Union Bank of Cameroon PLC (UBC) B.P 15 569, DOUALA
13. United Bank of Africa (UBA) B.P 2 088, DOUALA
14. Banque Camerounaise des Petites et Moyennes Entreprises (BC-PME) B.P 12 962 Yaoundé

INSURANCE COMPANIES

1. Chanas Assurances S.A. B.P: 109/Douala;
2. Activa Assurances S.A B.P:12970/Douala;
3. Zenithe Insurance S.A B.P:1540/ Douala
4. AREA Assurance
5. PROASSUR