



INVITATION TO BID

SLE/ITB/2017/001 – Construction of Various water facilities in selected locations in Sierra Leone as detailed in the Bid Data Sheet of this ITB.

**United Nations Development Programme
Sierra Leone**

March 2017

March 6, 2017

ITB No. SLE/ITB/2017/001: Construction of various water facilities in selected locations in S/L.

Section 1. Letter of Invitation

UNDP Sierra Leone
6 March, 2017

ITB No. SLE/ITB/2017/001

Construction of various water facilities in selected locations in Sierra Leone as detailed in the Bid Data Sheet of this ITB.

Dear Madam/ Sir,

The United Nations Development Programme (UNDP) in Freetown, Sierra Leone hereby invites you to submit a Bid to this Invitation to Bid (ITB) in respect of the above mentioned procurement.

This ITB includes the following documents:

- Section 1 – This Letter of Invitation
- Section 2 – Instructions to Bidders
- Section 3 – Bid Data Sheet
- Section 4 – General Terms and Conditions
- Section 5 – Special Conditions
- Section 6 – Technical Specifications
- Section 7 – Bid Submission Form

United Nations Development Programme
55 Wilkinson Road
P.O.Box 1011, Freetown, Sierra Leone
Attention: Procurement Specialist
Email Address: Yonah.samo@undp.org

The letter should be received by UNDP no later than **20th March 2017, at 12. 00 Hours, Local Time.** The same letter should advise whether your company intends to submit a Bid. If that is not the case, UNDP would appreciate your indicating the reason, for our records.

If you have received this ITB through a direct invitation by UNDP, transferring this invitation to another firm requires notifying UNDP accordingly.

Should you require any clarification, kindly communicate with the contact person identified in the attached Data Sheet (Annex as the focal point for queries on this ITB).

UNDP looks forward to receiving your Bid and thanks you in advance for your interest in UNDP procurement opportunities.

Yours sincerely,


Carine Yengayenge
Deputy Country Director (O)

March 6, 2017

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Section 2: INSTRUCTIONS TO BIDDERS

A. Introduction

1. **General:** The Purchaser invites Sealed Bids for the supply of goods to the UN system
2. **Eligible Bidders:** Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design specifications, and other documents to be used for the procurement of goods to be purchased under this Invitation to Bids.
3. **Cost of Bid:** The Bidder shall bear all costs associated with the preparation and submission of the Bid, and the procuring UN entity will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the solicitation.

B. Solicitation Documents

4. **Examination of Solicitation Documents:** The Bidder is expected to examine all corresponding instructions, forms, terms and specifications contained in the Solicitation Documents. Failure to comply with these documents will be at the Bidder's risk and may affect the evaluation of the Bid.
5. **Clarification of Solicitation Documents:** A prospective Bidder requiring any clarification of the Solicitation Documents may notify the procuring entity in writing. The response will be made in writing to any request for clarification of the Solicitation Documents that it receives earlier than one week prior to the Deadline for the Submission of Bids. Written copies of the response (including an explanation of the query but without identifying the source of inquiry) will be sent to all prospective Bidders that received the Solicitation Documents.
6. **Amendments of Solicitation Documents:** No later than one week prior to the Deadline for Submission of Bids, the procuring entity may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, amend the Solicitation Documents. All prospective Bidders that have received the Solicitation Documents will be notified in writing of any amendments. In order to afford prospective Bidders reasonable time in which to take the amendments into account in preparing their offers, the procuring entity may, at its discretion, extend the Deadline for the Submission of Bids.

C. Preparation of Bids

7. **Language of the Bid:** The Bid prepared by the Bidder and all correspondence and documents relating to the Bid exchanged by the Bidder and the procuring entity shall be written in the language indicated on the Bid Data Sheet - the English language.

8. Documents Comprising the Bid:

The Bid must comprise the following documents:

- a. Bid Submission form (Section 9);
- b. A signed Bill of Quantities, completed in accordance with Section 5 and clause 11 of Instructions to Bidders, with each item quoted for and each page of the BOQ completed with signature and Company's/Business Stamp.
- c. Valid and Up-to-date National Social Security and Insurance Trust Clearance (NaSSIT)
- d. Valid and Up-to-date National Revenue Authority – (NRA) Tax Clearance Certificate
- e. Certificate of Business Registration
- f. Certificate of Incorporation/Business Name Registration
- g. Ministry of Works Contractors Certificate of Registration (Financial Class 1 Or 2)
- h. List of Equipment owned to be hired from SLRA – MSU
- i. CVs and Copies of Certificates of Technical Personnel (Engineers, Clerk of Works, etc.)
- j. Audited Statement of Account of the company for the last two years
- k. Current Annual Practicing Certificates of a least two Civil Engineers from SLIE/PERC, in accordance with The Professional Engineers' Act No. 3 of 1990
- l. Programme of work for the entire project not exceeding Four months
- m. Documentary evidence established in accordance with clause 9 of Instructions to Bidders and Annex VI that the Bidder is eligible to and is qualified to perform the contract if its Bid is accepted, and including at least the following:
 - i. Two letters of reference from different, verifiable, satisfied clients for whom similar work has been done in the past two years must be submitted.
- n. Documentary evidence established in accordance with clause 10 of Instructions to Bidders that the goods and ancillary services to be supplied by the Bidder are eligible goods and services and conform to the Bidding Documents, particularly the bill of quantities.

9. Documents Establishing Bidder's Eligibility and Qualifications:

The Bidder shall furnish evidence of its status as qualified Supplier. The documentary evidence of the Bidder's qualifications to perform the contract if its Bid is accepted shall be established to the Purchaser's satisfaction:

- (a) that, in the case of a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods' manufacturer or producer to supply the goods in the country of final destination.
- (b) That the Bidder has the financial, technical, and production capability necessary to perform the contract.

10. Documents Establishing Goods' Conformity to Bidding Documents:

The Bidder shall also furnish as part of its Bid, documents establishing the conformity to the Bidding Documents of all goods and related services which the Bidder proposes to supply under the contract. The documentary evidence of conformity to the Bidding Documents may be in the form of literature, drawings, and data, and shall consist of:

- (a) A detailed description of the essential technical and performance characteristics of the goods and services;

11. Bid Currencies/Bid Prices:

- a) All prices shall be quoted in Sierra Leone Leones (SLL). The Bidder shall indicate on the Bill of Quantities the unit prices (where applicable) and total Bid Price of the goods/services it proposes to supply under the contract.
- b) All prices/rates quoted must be exclusive of all taxes, since the United Nations, including its subsidiary organs, is exempt from taxes.

12. **Period of Validity of Bids:** Bids shall remain valid for 90 days after the date of Bid Submission prescribed by the procuring UN entity pursuant to clause 16 of Instructions to Bidders. A Bid valid for a shorter period may be rejected as non-responsive pursuant to clause 20 of Instructions to Bidders. In exceptional circumstances, the procuring UN entity may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. Bidders granting the request will not be required nor permitted to modify their Bids.

13. **Bid Security:** not applicable.

D. Submission of Bids

14. **Format and Signing of Bid:** The Bidder shall prepare four copies of the Bid, clearly marking each "One Original Bid" and "Three Copies of Bid" as appropriate. In the event of any discrepancy between them, the original shall govern. The three copies of the Bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the contract. A Bid shall contain no interlineations, erasures, or overwriting except, as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

15. Sealing and Marking of Bids:

15.1 The Bidder shall seal the original and each copy of the Bid in separate envelopes, duly marking the envelopes as "ORIGINAL" and "COPY". The envelopes shall then be sealed in an outer envelope.

15.2 The inner and outer envelopes shall:

- (a) be addressed to the Purchaser at the address given in section I of these Solicitation Documents; and
- (b) Make reference to the "subject" indicated in section I of these Solicitation Documents **(SLE/ITB/2017/001/Boreholes/Lot No.)**, and a statement: "DO NOT OPEN BEFORE 12:00 PM on 20 March 2017".

15.3 The inner and outer envelopes shall also indicate the name and address of the Bidder to enable the Bid to be returned unopened in case it is declared "late".

15.4 If the outer envelope is not sealed and marked as required by clause 15.2 of Instructions to Bidders, the Purchaser will assume no responsibility for the Bid's misplacement or premature opening.

16. Deadline for Submission of Bids/Late Bids:

16.1 Bids must be delivered to the office on or before the date and time specified in section I of these Solicitation Documents **(MONDAY 12:00 PM (Freetown, Sierra Leone time) ON 20th March 2017)**.

16.2 The Purchaser may, at its discretion, extend this deadline for the submission of the bids by amending the Bidding Documents in accordance with clause 6 of Instructions to Bidders, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

16.3 Any Bid received by the Purchaser after the Deadline for Submission of Bids will be rejected and returned unopened to the Bidder.

17. Modification and Withdrawal of Bids: The Bidder may withdraw its Bid after submission, provided that written notice of the withdrawal is received by the procuring UN entity prior to the deadline for submission. No Bid may be modified after passing of the Deadline for Submission of Bids. No Bid may be withdrawn in the interval between the Deadline for Submission of Bids and the expiration of the Period of Bid Validity.

E. Evaluation of Bids

18. Clarification of Bids: To assist in the examination, evaluation and comparison of Bids the procuring UN entity may at its discretion ask the Bidder for clarification of its Bid. The request for clarification and the response shall be in writing and no change in price or substance of the Bid shall be sought, offered or permitted.

19. Preliminary Examination:

20.1 Prior to the detailed evaluation, the Purchaser will determine the substantial responsiveness of each Bid to the Invitation to Bid (ITB). A substantially responsive Bid is one which conforms to all the terms and conditions of the ITB without material deviations.

20.2 The Purchaser will examine the bids to determine whether they are complete, whether any computational errors have been made, whether the documents have been properly signed, and whether the bids are generally in order.

20.3 Arithmetical errors will be rectified on the following basis: 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. If the Bidder does not accept the correction of errors, its Bid will be rejected. If there is a discrepancy between words and figures the amount in words will prevail.

20.4 A Bid determined as not substantially responsive will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

21. Evaluation of Bids: Determination of compliance with the Solicitation Documents is based on the content of the Bid itself without recourse to extrinsic evidence.

22. Evaluation Criteria:

Evaluation Criteria	
1.1	Price
1.2	Compliance with requirements relating to technical design features or the product's ability to satisfy functional, technical and performance requirements.
1.3	Compliance with Special and General Conditions specified by these Solicitation Documents.
1.4	Demonstrated ability to comply with critical provisions such as execution of the Purchase Order/Contract by honoring the tax-free status of the UN.
1.5	Demonstrated ability to honor important responsibilities and liabilities allocated to Supplier in this ITB (e.g. Part C, Article 8 of the Instruction to Bidder, warranties etc.).

F. Award of Contract

23. **Award Criteria:** The procuring UN entity will Issue the Purchase Order/Contract by Lot with no one Company getting more than one Lot while taking into account the lowest priced technically qualified Bidder. The Purchaser reserves the right to accept or reject any Bid, to annul the solicitation process and reject all Bids at any time prior to award of purchase order/contract, without thereby incurring any liability to the affected Bidder(s) or any obligation to provide information on the grounds for the purchaser's action.
24. **Purchaser's Right to Vary Requirements at Time of Award:** The Purchaser reserves the right at the time of making the award of contract to increase or decrease by up to 15 % the quantity of goods specified in the Schedule of Requirements without any change in unit price or other terms and conditions.
25. **Notification of Award:** Prior to the expiration of the period of Bid Validity, the Purchaser will send the successful Bidder the Purchase Order/Contract. The Purchase Order/Contract may only be accepted by the Supplier's signing and returning an acknowledgement copy of it or by timely delivery of the goods in accordance with the terms of this purchase order/contract, as herein specified. Acceptance of this Purchase Order/Contract shall effect a contract between the parties under which the rights and obligations of the parties shall be governed solely by the terms and conditions of this purchase order/contract.
26. **Signing of the Purchase Order/Contract:** Within 10 days of receipt of the Purchase Order/Contract the successful Bidder shall sign, date and return it to the purchaser.
27. **Performance Security:** The successful Bidder shall provide the Performance Security on the Performance Security Form provided for in these Solicitation Documents, within 10 days of receipt of the Purchase Order/Contract from the purchaser. Note this document is not required at the bidding stage.

Failure of the successful Bidder to comply with the requirement of clause 26 or clause 27 of Instructions to Bidders shall constitute sufficient grounds for the annulment of the award, in which event the Purchaser may make the award to the next lowest evaluated Bidder or call for new Bids. As stated above, the requirement doesn't apply at the bidding stage and unsuccessful bidders.

Section 3: BID DATA SHEET

The following specific data for the goods/services to be procured shall complement, supplement, or amend the provisions in the Instruction to Bidders. Whenever there is a conflict, the provisions herein shall prevail over those in the Instructions to Bidders.

Relevant clause(s) of Instruction to Bidders	Specific data complementing, supplementing, or amending instructions to Bidders
Project Background	<p>The Ministry of Water Resources (MWR) with support from the UNDP/GEF is implementing a project focused on building the adaptive capacity to catalyze active public and private sector participation to manage the exposure and sensitivity of water supply services to climate change in Sierra Leone.</p> <p>This project seeks to enhance the adaptive capacity of decision-makers in the public and private sector involved in water provision to plan for and respond to climate change risks on water resources. The project will strive to build capacity in the water resources sector through institutional strengthening with a view to ensuring the effective delivery of hydrological services, predicated on the realization that workable options for adapting to climate change. An entry point of the project is the component which ensures water supply infrastructure in Freetown and Pujehun, Kambia and Kono districts made resilient against climate change induced risks focuses on pioneering innovations that particularly address the dry season water supply problems, which are likely worsened by anticipated climate change impacts.</p> <p>The services of a firm are required to construct the following water facilities based on the nationally approved designs and BoQ provided by Water Directorate (annexed);</p> <ol style="list-style-type: none"> 1. Twelve (12) drilled wells (boreholes) and (4 No 5m³) elevated 20,000Ltr Poly storage tanks and distribution network maximum 450m;making provision for the installation of solar submersible pump. 2. Fifteen (15) boreholes / monitoring wells 3. Three (03) Spring Box with distribution network of maximum 350m and eight (08) taps per spring box; making provision for the installation of solar submersible pump 4. One (01) Gravity Water System with distribution network of maximum 350m and twenty (20)stand posts/ taps 5. Four (04)Rain Water Harvesting facilities, 6m depth storage tanks and distribution network of maximum 250m;making provision of solar submersible pumps <p>These facilities should ensure access to water all year round to be use by the local communities as a pro-active resilient approach to enhance overall access to water within a climate insecure future.</p>

Description of Duties/Job	<p>The Firm (Entity) will work under the supervision the UNDP-GEF Project Manager and in close collaboration with the Ministry of Water Resources and the Local Councils within the areas that the boreholes are to be constructed. The Firm/Contractor will be required to perform the following tasks:</p> <p>Conduct relevant assessments including geophysics analysis of the sites in partnership with the MWR and SALWACO and the Local Councils;</p> <ol style="list-style-type: none"> 1. Construct these facilities based on the nationally approved designs and BoQ provided by Water Directorate (annexed); <ul style="list-style-type: none"> - Twelve (12) drilled wells (boreholes) equipped with solar pump and (4 No 5m³) elevated Twelve (12) drilled wells (boreholes) equipped with solar pump and (4 No 5m³) elevated 20,000Ltr Poly storage tanks; - Fifteen (15) boreholes / monitoring wells - Three (03) Spring Box with distribution network of maximum 350m and eight (08) taps per spring box; - One (01) Gravity Water System with distribution network of maximum 350m and eight (08) taps - Four (04) Rain Water Harvesting facilities, 6^m storage tanks and distribution network of maximum 250m. 2. Provide one-year supplies of relevant spare parts; 3. Establish and provide Maintenance Manual on procedures of maintenance for these facilities; 4. Train Local Management Committee on the maintenance of the facilities; <p><u>Construction of water facilities are divided into Lots as indicated below. Firm can bid for one or more Lots.</u></p> <p>Lot 1</p> <ul style="list-style-type: none"> ▪ Construct the rooftop rainwater collection with reservoirs at the Water Directorate Ministry of Water Resources (Tower Hill) and the EFA Biodiversity and Renewable Energy Centre (Sussex); <p>Lot 2</p> <ul style="list-style-type: none"> ▪ Construct the rooftop rainwater collection with reservoirs at the PCM Hospital/Bishop Johnson Secondary School buildings (Fourah Bay Road)
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	<p>Lot 3</p> <ul style="list-style-type: none"> Construct four (4) drilled wells (boreholes) ;making provision for the installation of solar submersible pumps and (4 No 5m³) elevated 20,000Ltr Poly storage tanks with distribution network of maximum 450m in Freetown (Hill Station [back of America Embassy], Funimah [Goderich], Force Gap and Disable Camp at Grafton); <p>Lot 4</p> <ul style="list-style-type: none"> Construct four (04) drilled wells (boreholes); making provision for the installation of solar submersible pump and (4 No 5m³) elevated 20,000Ltr Poly storage tanks and distribution networks of maximum 450m in Pujehun (Nyandehun Malen, Falluwahun Kpaka, Potoru Old town Barrie and Jendema by the market in Soro-Gbeima chiefdom); <p>Lot 5</p> <ul style="list-style-type: none"> Construct one (01) Spring Box, making provision for the installation of solar submersible pump and with distribution network of 250m in Kortumahun; Construct the rooftop rainwater collection with reservoirs and with distribution network of maximum 350m; making provision for the installation of solar submersible pump at the R.C Primary School, Masahun, Pujehun District <p>Lot6</p> <ul style="list-style-type: none"> Construct two (02) drilled wells (boreholes) making provision for the installation solar submersible pump and (4 No 5m³) elevated 20,000Ltr Poly storage tanks with distribution network of maximum 450m in Kambia (Kolenten Senior Secondary School, Kambia Town and Kychom community, Samu Chiefdom); Construct one (01) Spring Box with distribution network 350m and making provision for the installation of solar submersible pump in Rogbere Community, Gbinlendixon Chiefdom; <p>Lot 7</p> <ul style="list-style-type: none"> Construct two (02) drilled wells (boreholes) and tower for (4 No 5m³) elevated 20,000Ltr Poly storage tanks with distribution network of maximum 450m; making provision for the installation of solar submersible pump in Kono (Model Sec.School,Koidu and Boroma community, Gbense chiefdom);
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	<p>Lot 8</p> <ul style="list-style-type: none"> Construct one (01) Spring Box and reservoir with tower and distribution network 350m; making provision of submersible solar pump in Fiama; Rehabilitate One (01) Gravity Water System and distribution network of maximum 800m and twenty (20) stand posts/taps in Njiama Nimikoro <p>Lot 9</p> <ul style="list-style-type: none"> Supply and install solar Submersible pumps on twelve (12) constructed boreholes in the relevant locations as above, <p>Lot 10</p> <ul style="list-style-type: none"> Supply and install solar Submersible pumps on three (3) spring boxes and Five (5) Rainwater Harvesting facilities in the relevant locations above. <p>Lot 11</p> <ul style="list-style-type: none"> Construct 15 Observation boreholes in the following locations particular site to be determined by Ministry of Water Resources: Bo, Mattru Jong, Pujehun, Moyamba, Kailahun, Kenema, Kono, Makeni, Kabala, PortLoko, Kambia, Magburaka, Waterloo and 2no. in Freetown. <p>Bids for ALL Lots should include;</p> <ol style="list-style-type: none"> Provision of one-year supplies of relevant spare parts; Development of a Maintenance Manual on procedures of maintenance for these facilities; Training of the Local Management Committee on the maintenance of the facilities
<p>Deliverables</p>	<p>Based on the scope of work outlined above, the contractor will be expected to deliver the following outputs:</p> <ol style="list-style-type: none"> Geo-physical report submitted to the Project Manager before the construction of any water facilities within two weeks after signing of the contract/ In the case of Spring boxes and Rainwater Harvesting facilities suggested / modified designs; Borehole Log reports and borehole design; Report of constructed water facilities; Submission of Maintenance Manual and Final technical report of completion 4 months after signing the contract.

Bidding Process	Because of the tight delivery timelines, bidders are requested not/not to bid for more than 1 lot.
Language of the Bid	English
Bid Price	The bid price shall be quoted in the Sierra Leone Leones in figures and shall be typed in letter, in the event of conflict between the two, the amount that is typed in letter shall prevail over the one that is printed in figures.
Documents Establishing Bidder's Eligibility & Qualifications	Required
Bid Validity Period.	90 days from the date of bid opening
Bid Security	The nature of this procurement doesn't require Submission of Bid Security
Preliminary Examination – completeness of bid.	Bids not adhering fully to the requirement of the respective lot and other administrative requirements will be consider partial bid and will be rejected.
Purchaser's Right to Vary Requirements at Time of Award	15 percent (15%) increase or decrease. Remain unchanged.
Compliance with any other clause required?	Yes. Paragraph 9 of Instruction to Bidders regarding documentation required. Winning bidder in each Lot must comply with the time frame for completion of the work set forth in Section 7

Section 4: General Terms and Conditions

THIS IS UNDP'S TEMPLATE FOR CONTRACT FOR THE BIDDER'S REFERENCE. ADHERENCE TO ALL TERMS AND CONDITIONS IS MANDATORY

General Terms and Conditions for Goods

1. ACCEPTANCE OF THE PURCHASE ORDER

This Purchase Order may only be accepted by the Supplier's signing and returning an acknowledgement copy of it or by timely delivery of the goods in accordance with the terms of this Purchase Order, as herein specified. Acceptance of this Purchase Order shall effect a contract between the Parties under which the rights and obligations of the Parties shall be governed solely by the terms and conditions of this Purchase Order, including these General Conditions. No additional or inconsistent provisions proposed by the Supplier shall bind UNDP unless agreed to in writing by a duly authorized official of UNDP.

2. PAYMENT

2.1.1 UNDP shall, on fulfillment of the Delivery Terms, unless otherwise provided in this Purchase Order, make payment within 30 days of receipt of the Supplier's invoice for the goods and copies of the shipping documents specified in this Purchase Order.

2.1.2 Payment against the invoice referred to above will reflect any discount shown under the payment terms of this Purchase Order, provided payment is made within the period required by such payment terms.

2.1.3 Unless authorized by UNDP, the Supplier shall submit one invoice in respect of this Purchase Order, and such invoice must indicate the Purchase Order's identification number.

2.1.4 The prices shown in this Purchase Order may not be increased except by express written agreement of UNDP.

3. TAX EXEMPTION

3.1 Section 7 of the Convention on the Privileges and Immunities of the United Nations provides, inter alia, that the United Nations, including its subsidiary organs, is exempt from all direct taxes, except charges for utilities services, and is exempt from customs duties and charges of a similar nature in respect of articles imported or exported for its official use. In the event any governmental authority refuses to recognize UNDP's exemption from such taxes, duties or charges, the Supplier shall immediately consult with UNDP to determine a mutually acceptable procedure.

3.2 Accordingly, the Supplier authorizes UNDP to deduct from the Supplier's invoice any amount representing such taxes, duties or charges, unless the Supplier has consulted with UNDP before the payment thereof and UNDP has, in each instance, specifically authorized the Supplier to pay such taxes,

duties or charges under protest. In that event, the Supplier shall provide UNDP with written evidence that payment of such taxes, duties or charges has been made and appropriately authorized.

4. RISK OF LOSS

Risk of loss, damage to or destruction of the goods shall be governed in accordance with DDU Incoterms 2000, unless otherwise agreed upon by the Parties on the front side of this Purchase Order.

5. EXPORT LICENCES

Notwithstanding any INCOTERM 2000 used in this Purchase Order, the Supplier shall obtain any export licences required for the goods.

6. FITNESS OF GOODS/PACKAGING

The Supplier warrants that the goods, including packaging, conform to the specifications for the goods ordered under this Purchase Order and are fit for the purposes for which such goods are ordinarily used and for purposes expressly made known to the Supplier by UNDP, and are free from defects in workmanship and materials. The Supplier also warrants that the goods are contained or packaged adequately to protect the goods.

7. INSPECTION

1. UNDP shall have a reasonable time after delivery of the goods to inspect them and to reject and refuse acceptance of goods not conforming to this Purchase Order; payment for goods pursuant to this Purchase Order shall not be deemed an acceptance of the goods.

2. Inspection prior to shipment does not relieve the Supplier from any of its contractual obligations.

8. INTELLECTUAL PROPERTY INFRINGEMENT

The Supplier warrants that the use or supply by UNDP of the goods sold under this Purchase Order does not infringe any patent, design, trade-name or trade-mark. In addition, the Supplier shall, pursuant to this warranty, indemnify, defend and hold UNDP and the United Nations harmless from any actions or claims brought against UNDP or the United Nations pertaining to the alleged infringement of a patent, design, trade-name or trade-mark arising in connection with the goods sold under this Purchase Order.

9. RIGHTS OF UNDP

In case of failure by the Supplier to fulfil its obligations under the terms and conditions of this Purchase Order, including but not limited to failure to obtain necessary export licences, or to make delivery of all or part of the goods by the agreed delivery date or dates, UNDP may, after giving the Supplier reasonable notice to perform and without prejudice to any other rights or remedies, exercise one or more of the following rights:

- a) Procure all or part of the goods from other sources, in which event UNDP may hold the Supplier responsible for any excess cost occasioned thereby.
- b) Refuse to accept delivery of all or part of the goods.
- c) Cancel this Purchase Order without any liability for termination charges or any other liability of any kind of UNDP.

10. LATE DELIVERY

Without limiting any other rights or obligations of the parties hereunder, if the Supplier will be unable to deliver the goods by the delivery date(s) stipulated in this Purchase Order, the Supplier shall (i) immediately consult with UNDP to determine the most expeditious means for delivering the goods and (ii) use an expedited means of delivery, at the Supplier's cost (unless the delay is due to Force Majeure), if reasonably so requested by UNDP.

11. ASSIGNMENT AND INSOLVENCY

11.1. The Supplier shall not, except after obtaining the written consent of UNDP, assign, transfer, pledge or make other disposition of this Purchase Order, or any part thereof, or any of the Supplier's rights or obligations under this Purchase Order.

11.2. Should the Supplier become insolvent or should control of the Supplier change by virtue of insolvency, UNDP may, without prejudice to any other rights or remedies, immediately terminate this Purchase Order by giving the Supplier written notice of termination.

12. USE OF UNDP OR UNITED NATIONS NAME OR EMBLEM

The Supplier shall not use the name, emblem or official seal of UNDP or the United Nations for any purpose.

13. PROHIBITION ON ADVERTISING

The Supplier shall not advertise or otherwise make public that it is furnishing goods or services to UNDP without specific permission of UNDP in each instance.

14. CHILD LABOUR

The Supplier represents and warrants that neither it nor any of its affiliates is engaged in any practice inconsistent with the rights set forth in the Convention on the Rights of the Child, including Article 32 thereof, which, inter alia, requires that a child shall be protected from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development.

Any breach of this representation and warranty shall entitle UNDP to terminate this Purchase Order immediately upon notice to the Supplier, without any liability for termination charges or any other liability of any kind of UNDP.

15. MINES

The Supplier represents and warrants that neither it nor any of its affiliates is actively and directly engaged in patent activities, development, assembly, production, trade or manufacture of mines or in such activities in respect of components primarily utilized in the manufacture of Mines. The term "Mines" means those devices defined in Article 2, Paragraphs 1, 4 and 5 of Protocol II annexed to the Convention on Prohibitions and Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects of 1980.

Any breach of this representation and warranty shall entitle UNDP to terminate this Purchase Order immediately upon notice to the Supplier, without any liability for termination charges or any other liability of any kind of UNDP.

16. SETTLEMENT OF DISPUTES

16.1 Amicable Settlement

The Parties shall use their best efforts to settle amicably any dispute, controversy or claim arising out of, or relating to this Purchase Order or the breach, termination or invalidity thereof. Where the Parties wish to seek such an amicable settlement through conciliation, the conciliation shall take place in accordance with the UNCITRAL Conciliation Rules then obtaining, or according to such other procedure as may be agreed between the Parties.

16.2 Arbitration

Unless, any such dispute, controversy or claim between the Parties arising out of or relating to this Purchase Order or the breach, termination or invalidity thereof is settled amicably under the preceding paragraph of this Section within sixty (60) days after receipt by one Party of the other Party's request for such amicable settlement, such dispute, controversy or claim shall be referred by either Party to arbitration in accordance with the UNCITRAL Arbitration Rules then obtaining, including its provisions on applicable law. The arbitral tribunal shall have no authority to award punitive damages. The Parties shall be bound by any arbitration award rendered as a result of such arbitration as the final adjudication of any such controversy, claim or dispute.

17. PRIVILEGES AND IMMUNITIES

Nothing in or related to these General Terms and Conditions or this Purchase Order shall be deemed a waiver of any of the privileges and immunities of the United Nations, including its subsidiary organs.

18. SEXUAL EXPLOITATION:

18.1 The Contractor shall take all appropriate measures to prevent sexual exploitation or abuse of anyone by it or by any of its employees or any other persons who may be engaged by the Contractor to perform any services under the Contract. For these purposes, sexual activity with any person less than eighteen years of age, regardless of any laws relating to consent, shall constitute the sexual exploitation and abuse of such person. In addition, the Contractor shall refrain from, and shall take all appropriate measures to prohibit its employees or other persons engaged by it from, exchanging any money, goods, services, offers of employment or other things of value, for sexual favors or activities, or from engaging in any sexual activities that are exploitive or degrading to any person. The Contractor acknowledges and agrees that the provisions hereof constitute an essential term of the Contract and that any breach of this representation and warranty shall entitle UNDP to terminate the Contract immediately upon notice to the Contractor, without any liability for termination charges or any other liability of any kind.

18.2 UNDP shall not apply the foregoing standard relating to age in any case in which the Contractor's personnel or any other person who may be engaged by the Contractor to perform any services under the Contract is married to the person less than the age of eighteen years with whom sexual activity has occurred and in which such marriage is recognized as valid under the laws of the country of citizenship of such Contractor's personnel or such other person who may be engaged by the Contractor to perform any services under the Contract.

19.0 OFFICIALS NOT TO BENEFIT:

The Contractor warrants that no official of UNDP or the United Nations has received or will be offered by the Contractor any direct or indirect benefit arising from this Contract or the award thereof. The Contractor agrees that breach of this provision is a breach of an essential term of this Contract.

20. AUTHORITY TO MODIFY:

Pursuant to the Financial Regulations and Rules of UNDP, only the UNDP Authorized Official possess the authority to agree on behalf of UNDP to any modification of or change in this Agreement, to a waiver of any of its provisions or to any additional contractual relationship of any kind with the Contractor. Accordingly, no modification or change in this Contract shall be valid and enforceable against UNDP unless provided by an amendment to this Agreement signed by the Contractor and jointly by the UNDP Authorized Official.

Section 5: Special Conditions

The following Special Conditions shall complement, supplement, or amend the General Conditions. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions.

Warranty/Guarantee (Defect Liability Period)		
X Applies apply	<input type="checkbox"/> Does not	If, within 4 months after the handing over of site, any defects are discovered or arise in the normal course of usage, the Contractor shall remedy the defect either by replacement or by repair.
Liquidated damages		
X Applies apply	<input type="checkbox"/> Does not	If the Contractor fails to complete the prescribed job within the time stipulated by the purchase order/contract, the Purchaser shall, without prejudice to its other remedies under the contract, deduct from the Purchase Order/Contract price, as liquidated damages, a sum equivalent to 0.05 percent of the Contract price of the delayed job for each week of delay until actual completion and handing over of site, up to a maximum deduction of 10 percent of the delayed job Purchase Order/Contract price. Once the maximum is reached, the Purchaser may consider termination of the Purchase Order/Contract
Performance security		
<input type="checkbox"/> Applies apply	X Does not	<p>a) Within 10 days of receipt of the Purchase Order/Contract from the purchaser, the successful Bidder shall furnish a Performance Security to the Purchaser in the amount of 10% of the Purchase Order/Contract Value.</p> <p>b) The Performance Security shall be valid until a date of One Calendar Month from the date of Issue of a Satisfactory Certificate of Inspection and Testing by the procuring UN entity.</p> <p>c) The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the contract.</p> <p>d) The Performance Security shall be denominated in the currency of the Purchase Order/Contract and shall be in one of the following form of a bank guarantee or irrevocable letter of credit, issued by a reputable bank located in the purchaser's country or abroad in the form provided in these Solicitation Documents.</p> <p>e) The Security will be returned to the Supplier within One Calendar Month of completion of the Purchase order/Contract, including any warranty obligation.</p>

Section 6: Equipment owned or to hired.

A. Equipment

Bidders must demonstrate that they would have access to the key Contractor's equipment listed hereafter:

No.	Equipment Type and Characteristics	Minimum Number required
1	Terrameter/ Geophysical Equipment for siting the boreholes	One (1)
2	Drilling Rig and drilling tools	One (1)
3	Compressor	One (1)
4	Mud pump	One (1)
5	Support Trucks	One (1)
6	Pumping Test Equipment	One set
7	Hand tool set (mechanical, electrical, masonry & plumbing hand tools)	One (1) set of each type
8	Land Surveying Instrument	One (1) set
9	Pick-up Van	One (1)
10	First aid kit (assorted)	One set

The Bidder shall provide further details of proposed items of equipment

STATEMENT OF WORKS FOR BIODIVERSITY

EXCAVATION AND EARTHWORK

1 Datum and Nature of Excavation

The Contractor shall be responsible for setting up and maintaining a site datum level. 'Zero' datum shall be given on the site by the Engineer, unless otherwise noted on the Drawings. Information pertaining to the nature of the ground may be given to the contractor, when available, but without any guarantee of correctness or accuracy.

2 Setting Out Each Benchmark (B.M.) or centerline for the building and/or other constructions to be under this contract, shall be properly set out by the Contractor as shown on the Drawings and inspected and approved by the Engineer prior to commencing excavations.

3 Surface

Leveling All earth works on Site shall be completed before any fill is deposited. Excavations over areas of Site or filling with approved material shall be carried out where required to the levels shown on the Drawings or to such other levels as may be directed by the Engineer.

4 Size and Depth of Excavation

Excavation shall be cut to the size of the foundation shown on the Drawings and taken down to the foundation levels shown on the Drawings. If, without the Engineer's written instructions, the Contractor goes down below the foundation level specified, he shall fill up the part so excavated with concrete of the same type and grade as that required for the piles as defined in Concrete Works and the Bill of Quantities at his own expense.

5 Shoring Excavations and Dewatering

The sides of excavations shall be supported as necessary to maintain a vertical face and/or to prevent caving-in of any nature, especially during subsequent operations. The Contractor shall be responsible for the design, supply, fixing, safety and removal of all planking, strutting and shoring required to the side of the excavation. The Contractor is responsible on the type and nature of soil to be excavated; also he is to use any equipment, including dewatering equipment, to carry out the work required by this Contract.

6 Types of Excavations

Excavations shall be classified according to the nature of the materials to be removed either as excavation in rock or as excavation in earth. Excavation in rock shall be classified as including all excavations in hard and consolidated materials which cannot be removed by normal excavation tools and equipment, and which require drilling or other special means for their removal. All excavation which is not in rock shall be defined as excavation in earth.

7 Required Bearing Capacity

The Contractor shall notify the Engineer and obtain instructions if the required bearing capacity:

- (1) is obtained at a lesser depth than that shown on the drawings.
- (2) is not obtained at the depth shown on the drawings.

Excavation bottoms are to be approved before new work is laid on them. The Contractor is to inform the Engineer when excavations are ready for inspection. If, after approval, surfaces become unsuitable due to flooding or other causes, the Contractor shall excavate further, backfill with approved filling material and compact to approval at no extra cost to the owner. Should the soil

condition, after the Engineer has been informed the excavations are ready for inspection, be such that the Engineer deems it necessary to carry out tests, the Contractor shall perform such tests to the satisfaction of the Engineer. Any expenses incurred in the performance of such tests are deemed to be included by the Contractor in his tender.

8 Preparation and Inspection of Excavation

All excavations shall be kept free of water arising from whatever source, and shall be properly cleaned out of all loose and foreign matter, leveled and rammed. The Contractor is to report to the Engineer when excavations are ready for inspection and all excavations are to be approved before any further work is done.

9 Filling

All filling materials shall be approved by the Engineer before being placed in position. Approved earth, sand, or any other suitable material free from rubbish shall be used to make up levels as shown on the Drawings.

The material shall be placed in successive layers each having a finished thickness not exceeding 250mm before compaction, watered and compacted to at least 98% compaction ratio of the maximum dry density of the Modified Proctor test (ASTM D-1557) prior to the placement of the succeeding layer. Any exposed side or edge of fill shall be properly and evenly graded to a slope as directed or specified.

When the required quantities of approved fill are not found on Site the Contractor shall, at his own expense, obtain them from locations approved by the Engineer. Filling to make up levels under building shall be executed with approved suitable material from existing ground levels up to underside of ground floor slab, and shall be placed in successive layers each having a finished thickness not exceeding 250mm, watered and compacted to at least 98% compaction ratio of the maximum dry density of the Modified Proctor test (ASTM D-1557) prior to the placement of the succeeding layer. The ground surrounding the building and pavements shall be filled with approved material, fine sand and coarse materials, free of foreign materials, debris, clay lumps, organic and vegetation.

a) Coarse materials: Such as sandy gravel, gravelly sand, ...etc., which is the material retained on sieve no. 4, and consists of crushed rock. It shall be clean, hard, tough and free from deleterious substance.

b) Fine Sand Materials shall consist of that portion of the total aggregate/fines passes no.4 sieve, such as sand, silty sand, etc.

10 Disposal of Surplus Material

All surplus excavated material not used in backfilling or levelling shall be loaded and transported elsewhere on the Site as required by the Engineer or, if not required on the Site, shall be loaded and carted away from the Site to a dump to be selected by the Contractor and approved by the Municipality at the Contractor's own expense. All rubbish arising from the Works shall be cleared away and removed from the Site as it accumulates per the Engineer's instructions and on completion of the Works.

CONCRETE WORK

General All materials shall be subject to such tests as the Engineer may direct and provision for such tests shall be included in the price for such materials inserted in the Bill of Quantities or Schedule of Rates unless otherwise provided for. In case such tests required by the Engineer, an independent and officially authorized lab shall carry out such tests and sampling. Properly representative samples of all materials to be used in the works shall be submitted by the Contractor for the Engineer's approval when required. Where tests are required by the Engineer, the Contractor shall take samples and send to a firm experienced in analysis of the material. Reports shall be submitted to the Engineer.

The Contractor shall bear all expenses consequent to the provision, taking and cartage, etc. of samples, in addition to the costs of performing the tests and reporting the results. The Engineer reserves the right to reject any material which, in his opinion is objectionable in any respect, notwithstanding its apparent compliance with the relevant Standards. Any such rejected material shall be removed from the site at the Contractor's expense at once.

2 Formwork for Concrete

The Contractor shall supply, design, erect, strike and remove the formwork and be entirely responsible for its stability and safety so that it will carry the fresh concrete and all incidental loadings and preserve it from damage and distortion during its placing, vibration, ramming, setting and curing. It shall be so constructed as to leave the finished concrete to the dimensions shown on the Drawings and of a material capable of providing the surface finish specified. In any event, the maximum permissible deflection under all loads shall not exceed 2mm or 1/600 of the free span, whichever is less. Formwork shall be of timber and / or metal and shall include all temporary concrete moulds and their supports. Bolts to be used for fixing the formwork shall be approved by the Engineer before starting the work.

For concrete surfaces, which are to remain, exposed wrought formwork shall be used. Wrought formwork shall be of timber or steel framing lined with 12mm thick smooth-faced plywood or an equal lining approved by the Engineer, or of metal, suitable to obtain a fair face finish on the concrete. All external angles or fair faced in-site concrete shall have chamfers formed with 15x15mm (5/8"x5/8") wrought hardwood angle fillets planted in the angles of the formwork, unless larger chamfers are shown on the drawings. Formwork ready to receive concrete shall be thoroughly clean and the internal faces properly painted with approved shutter oil or other preparation. Joints shall be tight to prevent leakage.

Wherever required and prior to placing of the reinforcement the internal surfaces of all formwork shall be treated with an approved mould oil. All formwork shall be inspected and approved by the Engineer prior to concreting.

This approval, however, does not relieve the Contractor of any of his responsibilities. The striking of all formwork shall be carried out with the greatest of care to avoid damage to concrete.

12 The formwork to vertical surfaces such as walls, columns and sides of beams may be removed in accordance with the table below although care must be taken to avoid damage to the concrete, especially to arrases and features. Minimum periods in days for striking other formwork should be

in accordance with the following table, or as directed by the Engineer Ordinary Portland Cement Concrete Slabs

3 (props left under) Beam soffits 7 (props left under) Props to slabs 7 Props to beams 16 Vertical surfaces as walls, columns and sides of beams 1 Formwork, shuttering, props, or any other means of temporary or semi-permanent support shall not be removed from the concrete until the concrete is sufficiently strong to carry safely the load (dead and temporary). The Contractor shall inform the Engineer when he is ready to strike the formwork, or remove any form of temporary support, and shall obtain his written consent before proceeding. The times given for the removal of props are based on the assumption that the total live plus dead weight to be supported at the time of removal is not more than one half of the total design load. For horizontal members where the loading is to be a higher proportion of the total design load these times may need to be increased. The Contractor shall be responsible for any damage to the concrete work caused by or arising from the removal and striking of the forms and supports any advice, permission or approval by the Engineer relative to the removal and striking of forms and supports shall not relieve the Contractor from this responsibility. Any work showing signs of damage through premature loading is to be entirely reconstructed at the Contractor's expense.

The Contractor shall confirm positions and details of all

- (a) Permanent fixings
- (b) Pipes and conduit
- (c) Holes and chases to ensure that alterations are not made without the knowledge and approval of the Engineer. The Contractor shall fix inserts or box out as required to correct positions before placing concrete, and shall form all holes and chases. He shall not cut hardened concrete without approval.

3 Reinforcement for Concrete

Steel reinforcement shall generally be hot rolled mild, medium or high yield steel smooth round or deformed bars complying with BS 4449 or similar approved standard. In case any other type of reinforcement is required, it shall comply with the requirements of the Particular Specification.

13 All reinforcement shall be free from rust and mill scale and any coating such as oil, clay, paint etc which might impair the bond with the concrete. Manufacturer's test certificates for all classes of reinforcement shall be supplied when required. Specimens sufficient for three tensile tests and three cold-bending tests per ten tons of bars or fraction thereof and for each different size of bar shall be sampled under the supervision of the Engineer. Testing shall be in accordance with BS 4449 or other approved standard and batches shall be rejected if the average results for each batch are not in accordance with the specification. All tests should be made on the Contractor's expense. All steel is to be totally free from dirt, paint, loose rust or scale when in position ready for concreting. The Contractor shall cut and bend bars to BS 4466 and to schedule provided unless otherwise instructed by the Engineer. Straight sections of bars must be kept out of winding. The internal radius of bends shall in no case be less than four times the diameter of the bar, except for stirrups, column binders, and wall shear bars which are to be bent to fit closely around the main bars. Great care is to be taken to bend stirrups and columns binders separately and to the sizes shown. All bars will be cut and bent cold using approved machines. Lengthening of bars by welding, and rebinding of incorrectly bent bars will not be permitted, except where requested by the

Engineer.

The Contractor shall provide on-site facilities for hand bending to deal with minor adjustments. Unless otherwise allowed for in the specification splices in reinforcing bars shall be formed by lapping. Such laps in bars in any member shall be staggered. Except as otherwise indicated on the drawings the minimum overlap of lapped splices shall be 50 bar diameters or 400mm whichever is greater.

The steel is to be fixed in position exactly as indicated, and the bars are to be securely wired together with 1.6 or 1.4mm soft iron wire or approved spring steel clips wherever necessary to prevent any displacement during concreting. Spacers, chairs and the like, temporary or permanent, are to be used as required to ensure that the steel has the exact amount of cover indicated. No permanent spacers, may show on a surface where a fair faced concrete finish or a brushed aggregate finish are required. Type of spacers shall be approved by the Engineer before starting the work. Unless otherwise indicated, the minimum cover to the reinforcing bars is to be as listed below, or equal to the diameter of the bar, whichever is greater. Position Minimum cover - mm Main bars in internal faces of columns and beams 25 Main bars in external faces of columns and beams 30 Main bars in floor slabs and soffits of roof slabs.

Handling Aggregates

The choice and preparation of sites for stockpiling of aggregates, the number and sizes of stockpiles and the methods adopted to prevent segregation of component sizes shall be agreed with the Engineer. Coarse aggregate shall be stockpiled in three separate gradings: 38-19mm, 19-10mm, 10-5mm. When aggregates of different gradings are stockpiled close together the stockpiles shall be separated by bulkheads. Stockpiles are to be on concrete or other hard surface sufficiently sloped so that water is not retained in the base of the stockpiles. All aggregates are to be handled from the stockpile in such a manner as to secure a typical grading of the material, care being taken to avoid crushing the aggregates and contamination with extraneous matter.

Aggregates need not be stockpiled when a crushing-screening plant is used in tandem with a batching plant properly equipped with several bins for different sized aggregates having the appropriate weighing scales at such bin such that a mix of the desired gradation is obtained consistently and the whole operation is conducted to the satisfaction of the Engineer.

Water Unless otherwise authorized in writing by the Engineer, only water from potable supply system may be used for mixing concrete and other products containing cement. Similarly, only potable water may be used for curing concrete and cement products during the first 24 hours after pouring. Later, fresh water, or other water containing not more than 4750 ppm dissolved solids of which not more than 1000 ppm may be chlorides, may be used for curing. No additives of any kind shall be used in the concrete without the express approval in writing of the Engineer.

Batching and Mixing Of Concrete

All concrete shall be batched by weight and mixed mechanically. Hand mixing shall not be allowed except only upon the written permission of the Engineer. Concrete may either be batched and mixed on site or outside the site and transported thereto When mixed outside the site and transported to it, batching and mixing shall be in accordance with ASTM Specification C94,

'Standard Specification for Ready-Mixed Concrete' . When mixed on site, batching and mixing shall be as follows:

BATCHING BY WEIGHT: The cement and each size of aggregate shall be measured by weight. The water may be measured by weight or volume. The weight-batching machines used shall be of a type approved by the Engineer and shall be kept in good condition while in use on the Works. Checks are to be made as required by the Engineer to determine that the weighing devices are registering correctly.

BATCHING AGGREGATE BY VOLUME: When batching aggregates by volume is allowed as and when required, the cement shall be batched by weight and the water by weight or volume. Each size of aggregate shall be measured in metallic containers the depth of which is at least equal to their greatest width. The containers shall be of such shape that their volume can be easily checked by measurement.

MIXING CONCRETE: the location of the batching and mixing plant shall be agreed with the Engineer. The amount of concrete mixed in any one batch is not to exceed the rated capacity of the mixer. The whole of the batch is to be removed before materials for a fresh batch enter the drum. On cessation of work, including all stoppages exceeding 20 minutes, the mixers and all handling plant shall be washed with clean mixing water. If old concrete deposits remain in the mixer drum, they shall be rotated with clean aggregate and water prior to production of new concrete. 20 Concrete mixed as above is not to be modified by the addition of water or in any other manner to facilitate handling or for any other reason.

Admixtures

No admixtures of any type shall be used in the preparation of concrete or concrete products unless so required by the Particular Specification or unless so directed by the Engineer. In case any such admixtures are used the rates and methods of application shall be strictly in accordance with the manufacturer's instructions which must be approved by the Engineer before using it.

Section 7: TECHNICAL SPECIFICATIONS

TECHNICAL STANDARDS AND SPECIFICATIONS FOR THE CONSTRUCTION OF DRILLED WELLS (BOREHOLES) IN URBAN FREETOWN, KAMBIA, KONO AND PUJEHUN DISTRICTS, SIERRA LEONE.

1. In-situ Concrete and Masonry Works

- 1.1 The Contractor shall ensure that the materials, including water are not contaminated by deleterious materials and that they conform to the following:-

Cement to British Standard (BS12) for Ordinary Portland Cement or equivalent.

Steel Reinforcement – to the appropriate British Standard or equivalent for high yield or mild steel as specified.

Aggregate – maximum 20mm size, well graded, unweathered approved rock

Mix proportions for reinforced concrete – cement: sand: aggregate, being 1:2:4

Mix proportion for apron and drainage – cement: Sand: aggregate, being 1:3:6

Mix proportions for mortar – cement: Sand, being 1:6

Mix proportion sand Crete blocks – Cement: sand, being 1:8

Mix proportion for plastering – cement: sand, being 1:6

Foundation concrete – cement: sand: aggregate, being 1:3:6

Steps and ramps concrete – cement: sand: aggregate, being 1:3:6

- 1.2 Concrete shall be mixed on a clean, solid surface that will not allow contamination of the mix.
- 1.3 Concrete mixes shall contain the minimum amount of water necessary to permit placement, vibration and consolidation.
- 1.4 After placement, the concrete shall be vibrated by mechanical means. The method of vibration is to be approved by the Consultant Engineer/works personnel prior to the operation. The vibrated and consolidated concrete is to be finished to toweling or floating the surface to a smooth and flat finish.

- 1.5 Following placement, vibration and finishing work to the concrete and after initial set has occurred so as not to damage the surface of the concrete, appropriate measures, approved by the Consultant Engineer/works personnel are to be implemented to cure the concrete for a minimum period of seven days.
- 1.6 Where concrete previously placed as part of the works is to be butted, jointed or raised with the addition of further concrete, except in the case where the initial concrete is blinding concrete, the first concrete surface must be suitably prepared by the scrubbling i.e. removing the laitance (fine concrete surfacing) before placement of the additional concrete. The method is to be approved by the Consultant Engineer/works personnel. After scrubbling, the concrete shall be thoroughly wetted and a thin layer of 1:2 cement; sand mortar applied just before pouring the new concrete.
- 1.7 Steel reinforcement shall be positioned with a clearance of 40mm to the face of the concrete unless otherwise directed by the Consultant Engineer/works personnel or shown in the Contract Drawings.
- 1.8 Formwork for the concrete shall be to the approval of the Consultant Engineer/Works personnel and shall not allow grout loss from the concrete mix.
- 1.9 Prior to the placement of the concrete the formwork is to be inspected and all deleterious materials removed to the approval of the Consultant Engineer/works personnel.

No mixing or placement of concrete is to be undertaken by the Contract without the prior permission

SUMMARY FOR CONCRETE AND MORTAR MIXES

Type of concrete	Cement (Bag)	Sand (wheelbarrow)	Sand (Head pan)	Stones (wheelbarrow)	Stones (Head pan)
Mass (1:4:8)	1	2	8	4	16
Over-site (1:3:6)	1	1.5	6	3	12
Reinforced (1:2:4)	1	1	4	2	8
Mortar (1:6)	1	3	12	-	-
Render (1:6)-1/2" thick	1	3	12	-	-
Screed (1:6)-2" thick	1	3	12	-	-
Block moulding (1:8)	1	4	16	-	-

Aggregate (granite stones)

For Mass and over-site concreting, ¾" dia. Size is recommended

For Reinforced concreting (Lintel, beams & columns etc.), 1/2" dia. Size is recommended.

Reinforcement

Mild steel bars:

For columns, lintels and beams, 12mm (1/2" dia.) 4 straight bars are recommended

Stirrups:

For columns, lintels and beams, 6mm (1/4" dia.) Spacing between stirrups must be 7".

Section 8: DRAWINGS

See attached all related drawings including details.

Section 9: BID SUBMISSION FORM

(This should be written in the Letterhead of the Bidder. Except for indicated fields, no changes may be made in this template.)

Insert: Location

Insert: Date

To: UNDP Sierra Leone, Procurement Unit

Dear Sir/Madam:

We, the undersigned, hereby offer to supply the goods and related services required for [insert: title of goods and services required as per ITB] in accordance with your Invitation to Bid dated Insert: bid date. We are hereby submitting our Bid, which includes the Technical Bid and Price Schedule.

We hereby declare that:

- a) All the information and statements made in this Bid are true and we accept that any misrepresentation contained in it may lead to our disqualification;
- b) We are currently not on the removed or suspended vendor list of the UN or other such lists of other UN agencies, nor are we associated with, any company or individual appearing on the 1267/1989 list of the UN Security Council;
- c) We have no outstanding bankruptcy or pending litigation or any legal action that could impair our operation as a going concern; and
- d) We do not employ, nor anticipate employing, any person who is or was recently employed by the UN or UNDP.

We confirm that we have read, understood and hereby fully accept the Schedule of Requirements and Technical Specifications describing the duties and responsibilities required of us in this ITB, and the General Terms and Conditions of UNDP's Standard Contract for this ITB.

We agree to abide by this Bid for 60 days.

We undertake, if our Bid is accepted, to initiate the supply of goods and provision of related services not later than the date indicated in the Instructions to Bidders.

We fully understand and recognize that UNDP is not bound to accept this Bid, that we shall bear all costs associated with its preparation and submission, and that UNDP will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the evaluation.

We remain,

Yours sincerely,

Authorized Signature *[In full and initials]*: _____

Name and Title of Signatory: _____

Name of Firm: _____

Contact Details: _____

[Please mark this letter with your corporate seal, if available]



Empowered lives.
Resilient nations.

UNITED NATIONS DEVELOPMENT PROGRAMME

Terms of Reference

I. Position Information

Job Code Title: Firm to construct

1. Twelve (12) drilled wells (boreholes) and (4 No 5m³) elevated 20,000Ltr Poly storage tanks and distribution network maximum 450m; making provision for the installation of solar submersible pump.
2. Fifteen (15) boreholes / monitoring wells
3. Three (03) Spring Box with distribution network of maximum 350m and eight (08) taps per spring box;
4. One (01) Gravity Water System with distribution network of maximum 350m and twenty (20) stand posts/ taps
5. Four (04) Rain Water Harvesting facilities, 6m depth storage tanks and distribution network of maximum 250m
6. Supply and installation of solar submersible pumps.

(Open to Registered Construction Firms operating in Sierra Leone).

Duty Station: Selected communities in Urban Freetown, Kono, Kambia and Pujehun Districts

Contract Modality: Local Firm

Duration: 4Month

II. Background

The Ministry of Water Resources (MWR) with support from the UNDP/GEF is implementing a project focused on building the adaptive capacity to catalyze active public and private sector participation to manage the exposure and sensitivity of water supply services to climate change in Sierra Leone.

This project seeks to enhance the adaptive capacity of decision-makers in the public and private sector involved in water provision to plan for and respond to climate change risks on water resources. The project will strive to build capacity in the water resources sector through institutional strengthening with a view to ensuring the effective delivery of hydrological services, predicated on the realization that workable options for adapting to climate change. An entry point of the project is the component which ensures water supply infrastructure in Freetown and Pujehun, Kambia and Kono districts made resilient against climate change induced risks focuses on pioneering innovations that particularly address the dry season water supply

problems, which are likely worsened by anticipated climate change impacts.

The services of a firm are required to construct the following water facilities based on the nationally approved designs and BoQ provided by Water Directorate (annexed);

6. Twelve (12) drilled wells (boreholes) and (4 No 5m³) elevated 20,000Ltr Poly storage tanks and distribution network maximum 450m; making provision for the installation of solar submersible pump.
7. Fifteen (15) boreholes / monitoring wells
8. Three (03) Spring Box with distribution network of maximum 350m and eight (08) taps per spring box; making provision for the installation of solar submersible pump
9. One (01) Gravity Water System with distribution network of maximum 350m and twenty (20) stand posts/ taps
10. Four (04) Rain Water Harvesting facilities, 6m depth storage tanks and distribution network of maximum 250m; making provision of solar submersible pumps

These facilities should ensure access to water all year round to be use by the local communities as a pro-active resilient approach to enhance overall access to water within a climate insecure future.

III. Functions / Key Results Expected

The Firm (Entity) will work under the supervision the UNDP-GEF Project Manager and in close collaboration with the Ministry of Water Resources and the Local Councils within the areas that the boreholes are to be constructed. The Firm/Contractor will be required to perform the following tasks:

5. Conduct relevant assessments including geophysics analysis of the sites in partnership with the MWR and SALWACO and the Local Councils;
6. Construct these facilities based on the nationally approved designs and BoQ provided by Water Directorate (annexed);
 - Twelve (12) drilled wells (boreholes) equipped with solar pump and (4 No 5m³) elevated 20,000Ltr Poly storage tanks;
 - Fifteen (15) boreholes / monitoring wells
 - Three (03) Spring Box with distribution network of maximum 350m and eight (08) taps per spring box;
 - One (01) Gravity Water System with distribution network of maximum 350m and eight (08) taps
 - Four (04) Rain Water Harvesting facilities, 6m storage tanks and distribution network of maximum 250m
7. Provide one-year supplies of relevant spare parts;
8. Establish and provide Maintenance Manual on procedures of maintenance for these facilities;
9. Train Local Management Committee on the maintenance of the facilities;

Construction of water facilities are divided into Lots as indicated below. Firm can bid for one or more Lots.

Lot 1

- Construct the rooftop rainwater collection with reservoirs at the Water Directorate Ministry of Water Resources (Tower Hill) and the EFA Biodiversity and Renewable Energy Centre (Sussex);

Lot 2

- Construct the rooftop rainwater collection with reservoirs at the PCM Hospital/Bishop Johnson Secondary School buildings (Fourah Bay Road)

Lot 3

- Construct four (4) drilled wells (boreholes) ;making provision for the installation of solar submersible pumps and (4 No 5m³) elevated 20,000Ltr Poly storage tanks with distribution network of maximum 450m in Freetown (Hill Station [back of America Embassy], Funimah [Goderich], Force Gap and Disable Camp at Grafton);

Lot 4

- Construct four (04) drilled wells (boreholes); making provision for the installation of solar submersible pump and (4 No 5m³) elevated 20,000Ltr Poly storage tanks and distribution networks of maximum 450m in Pujehun (Nyandehun Malen, Falluwahun Kpaka, Potoru Old town Barrie and Jendema by the market in Soro-Gbeima chiefdom);

Lot 5

- Construct one (01) Spring Box, making provision for the installation of solar submersible pump and with distribution network of 250m in Kortumahun;
- Construct the rooftop rainwater collection with reservoirs and with distribution network of maximum 350m; making provision for the installation of solar submersible pump at the R.C Primary School, Masahun, Pujehun District

Lot 6

- Construct two (02) drilled wells (boreholes) making provision for the installation solar submersible pump and (4 No 5m³) elevated 20,000Ltr Poly storage tanks with distribution

network of maximum 450m in Kambia (Kolenten Senior Secondary School, Kambia Town and Kychom community, Samu Chiefdom);

- Construct one (01) Spring Box with distribution network 350m and making provision for the installation of solar submersible pump in Rogbere Community, Gbinlendixon Chiefdom;

Lot 7

- Construct two (02) drilled wells (boreholes) and tower for (4 No 5m³) elevated 20,000Ltr Poly storage tanks with distribution network of maximum 450m; making provision for the installation of solar submersible pump in Kono (Model Sec.School,Koidu and Boroma community, Gbense chiefdom);

Lot 8

- Construct one (01) Spring Box and reservoir with tower and distribution network 350m; making provision of submersible solar pump in Fiama;
- Rehabilitate One (01) Gravity Water System and distribution network of maximum 800m and twenty (20) stand posts/taps in Njiama Nimikoro

Lot 9

- Supply and install solar Submersible pumps on twelve (12) constructed boreholes in the relevant locations as above,

Lot 10

- Supply and install solar Submersible pumps on three (3) spring boxes and Five (5) Rainwater Harvesting facilities in the relevant locations above.

Lot 11

- Construct 15 Observation boreholes in the following locations particular site to be determined by Ministry of Water Resources:
Bo,Mattru Jong,Pujehun, Moyamba, Kailahun, Kenema,Kono, Makeni,Kabala, PortLoko, Kambia, Magburaka,Waterloo and 2no. in Freetown.

Bids for ALL Lots should include;

4. Provision of one-year supplies of relevant spare parts;
5. Development of a Maintenance Manual on procedures of maintenance for these facilities;
6. Training of the Local Management Committee on the maintenance of the facilities

IV. Deliverables

Based on the scope of work outlined above, the contractor will be expected to deliver the following outputs:

- v. Geo-physical report submitted to the Project Manager before the construction of any water facilities within two weeks after signing of the contract/ In the case of Spring boxes and Rainwater Harvesting facilities suggested / modified designs;
- vi. Borehole Log reports and borehole design;
- vii. Report of constructed water facilities;
- viii. Submission of Maintenance Manual and Final technical report of completion 4 months after signing the contract.

V. Payment Modalities

- 1st installment: 30% upon submission of the Geo-physical survey report; in the case of Spring boxes and Rainwater Harvesting facilities suggested / modified designs and on signing of the contract.
- 2nd installment: 30% upon successful delivery of the borehole Log and design reports; in the case of Spring boxes and Rainwater Harvesting facilities upon completion of 50% of the works.
- 3rd installment: 30% upon successful delivery of the completed works and submission of the training reports and training manuals
- 4th installment: 10% (Retention fees) to be given to the contractor 2 months after the handing over to the facilities to the communities and upon certification of engineering report

VI. Qualifications

This assignment requires the services of a Firm that can demonstrate adequate technical capacity to undertake the construction of water facilities in accordance to specifications and drawings provided in the bidding document

The contractor should submit its relevant documents as listed below:

For Contractors:

- Registration certificate with the Ministry of Works – at least Financial Class 2
- Valid NRA Certificate
- Valid NASSIT certificate
- Record of similar work performed and completed
- List of drilling/construction equipments and vehicles acquired in the past years
- List of Drilling personnel in the team for those bidding for the boreholes

This assignment requires the services of a team of experts who can demonstrate adequate technical capacity and expertise. Beside the provision of the profile of the firm and evidence based of previous works of similar nature, the Firm (either NGO or Contractor) should provide summary CVs of its technical specialists as below:

a) Team Leader

Experience:

- Minimum 10 years professional experiences in Borehole drilling.
- Demonstrated understanding of community engagement.
- Previous experience working in similar situation would be an asset

b) Supervisor :

Civil Engineer/ Water Engineer or Geologist

Education

- University degree or its equivalent in Civil Engineering or Geology in the case of drilling.

Experience:

- Minimum 3 years professional experiences in supervising water construction works or in borehole drilling and carrying out geo-physical surveys in the case of borehole drilling.
- Demonstrated understanding of community engagement.
- Previous experience working in similar situation would be an asset

c) Driller/Mechanic for boreholes/ Construction supervisor in the case of civil works

Experience:

- Minimum 5 years professional experiences in Carrying out drilling of boreholes and operation and maintenance of drilling equipment's facilities; construction of civil works.
- Demonstrated understanding of community engagement.
- Previous experience working in similar situation would be an asset

VII. How to Apply

Qualified consulting firm/Contractor are hereby requested to apply. The application must contain the following:

- Technical proposal detailing
 - Description of similar assignment that has been undertaken by the Firm/NGO
 - Technical staff for the assignment
 - Submission of relevant documentation
 - Brief description (max. 2 pages) of the proposed methodology on how to complete the assignment
- Financial proposal
 - submission of completed BoQ

Note:

The information in the breakdown of the offered lump sum amount provided by the offer or will be used as the basis for determining best value for money, and as reference for any amendments of the contract.

The agreed contract amount will remain fixed regardless of any factors causing an increase in the cost of any of the components in the breakdown that are not directly attributable to UNDP.

IX. Evaluation criteria

Offers received will be evaluated using a combined scoring method, where the

Evaluation Criteria	
1.1	Price
1.2	Compliance with requirements relating to technical design features or the product's ability to satisfy functional, technical and performance requirements.
1.3	Compliance with Special and General Conditions specified by these Solicitation Documents.
1.4	Demonstrated ability to comply with critical provisions such as execution of the Purchase Order/Contract by honoring the tax-free status of the UN.
1.5	Demonstrated ability to honor important responsibilities and liabilities allocated to Supplier in this ITB (e.g. performance guarantees, warranties etc.).