



REQUEST FOR BIDS

REF.: ZMB03-2011

**REQUEST FOR BIDS FOR UPGRADING/ MECHANIZATION OF THE 1NO. EXISTING
BOREHOLE TO SMALL SOLAR POWERED PIPED WATER SCHEME AT SALANGA RURAL
HEALTH CENTRE IN MWANSABOMBWE DISRTRICT OF LUAPULA PROVINCE OF ZAMBIA**

**CARE INTERNATIONAL IN ZAMBIA
HOUSE # 7, CHITEMWIKO CLOSE, KABULONGA
P. O. BOX 36238
LUSAKA, ZAMBIA**

**TEL: +260 (211)-267950
MOBILE: +260 (977)- 790074
EMAIL: ZMB.Procurement@care.org**

CLOSING DATE FOR RECEIVING BIDS IS 29 MAY 2023 @ 14:00hrs

REQUEST FOR BIDS FOR UPGRADING/ MECHANIZATION OF THE 1NO. EXISTING BOREHOLE TO SMALL SOLAR POWERED PIPED WATER SCHEME SALANGA RURAL HEALTH CENTRE IN MWANSABOMBWE DISRTRICT OF LUAPULA PROVINCE OF ZAMBIA

CARE International in Zambia (CARE) is an international non-governmental organization that works around the globe to save lives, defeat poverty and achieve social justice. In Zambia, CARE currently operates in Eastern, Luapula, Muchinga and Southern Provinces. CARE, with funding support from Germany KFW through UNICEF Zambia, and in partnership with Mwansabombwe, Mwense and Kawambwa Town Councils and Luapula Water and Sanitation Company is implementing a project, **Improving WASH services**, in Mwansabombwe, Mwense and Kawambwa Districts of Luapula province. The project is aimed at improving access to safe water and adequate sanitation as well as practising good hygiene practices.

For this activity, CARE proposes to specifically work at **Salanga Rural Health Centre** in Mwansabombwe district to construct small piped solar powered water scheme.

CARE International in Zambia now invites Bids from registered contractors for the **request for bids for upgrading/ mechanization of the one (1) existing borehole to small- solar powered piped water scheme in Mwansabombwe district of Luapula province of Zambia.**

Proposals (Technical and Financial) should be submitted by email and in PDF with email subject line: **“Request for Bids for the Construction of Solar powered piped water scheme to ZMB.Procurement@care.org by Monday 29 MAY,2023 at 14:00hrs.**

For technical clarifications, call 0211267950; 0977790074

1 INSTRUCTIONS TO BIDDERS

1.1 Introduction

CARE, with funding support from Germany KFW through UNICEF Zambia, and in partnership with Mwansabombwe Town Councils intends to **Upgrade/ Mechanize 1 No. Existing borehole to Small Solar Powered piped water scheme Salanga Rural Health Centre in Mwansabombwe District of Luapula province of Zambia.**

1.2 Interpretation

If a Contractor is in doubt as to the true meaning of any part of this RFB or wishes to obtain supplementary information, he/she should request such information from CARE's Procurement Unit

1.3 Confidentiality

Contractors should not divulge to any person or persons any information relating to the project before and during performance of the contract.

1.4 Method of bidding

1.4.1 CARE reserves the right to award the bid.

1.4.2 The proposal (technical and financial) shall be prepared in **English**. The Bids shall include the full legal name and address of the bidder and shall be signed by the bidder or his duly authorized representative. The name of the signatory shall be typed or printed below the signature.
Bids received after closing date and time shall not be considered.

1.4.3 The contract shall be a **FIXED PRICE CONTRACT**, for all aspects of the works.

1.4.4 The contractor should allow to absorb, in his tender, any fluctuations on material, labour (inclusive statutory wage increases, allowances and employers' contributions) on transport, fuel, plant and machinery, hire insurance, administration, cost of all bonds and guarantees required for this project and whatsoever.

1.4.5 The Bidder is required to visit the site and acquaint themselves with accessibility, the position regarding the supply of water, sewer

disposal, the full extent and character of the operations required, the nature of the soil and all other matters which may affect his bid.

1.4.6 The currency of the Bids and evaluation shall be **ZAMBIAN KWACHA (ZMW)**.

1.4.1 The contractor shall prepare and submit to the Project Manager for verification an interim payment claims consistent with the value of the executed works in **ZMW (Zambian Kwacha)** at the stipulated stages

1.4.2 The Project Manager shall within 7 calendar days of receipt of such claim, verify and certify the amount due to the contractor. **10 % retention will be deducted in the final claim.**

1.4.3 The Employer shall make payment of the certified amount within 14 calendar days of issue of the certificate. Progress payments in accordance with the milestones established are as follows, subject to certification by the Employer, that the Works have been rendered satisfactorily, pursuant to the performance indicators:

- 25% advance payment
- 35% upon completion and certification of works: main pipelines and tank stand
- 40% upon completion and certification of all other remaining works

1.4.4 Retention- The percentage of certified value retained is **10% of Contract Sum**

1.4.5 The Defects Liability Period is **12 months**

1.4.6 Liquidated Damages will be charged at 0.5% of the final Contract Price per week. The maximum amount of liquidated damages is 10% of the final Contract Price.

1.4.7 The Appointing Authority for the Adjudicator: *Engineering Institution of Zambia*

1.4.8 The Performance Security is requested in the value of **10% of the contract value**, delivered within 14 days of signing the contract and

valid 30 days from the date of issue of the certificate of Completion.

1.4.9 Information to be submitted with the bid are:

- a) Company's registration
- b) Valid ZRA Tax Clearance and VAT Registration certificates
- c) Power of Attorney Letter
- d) A copy of Litigation status. All pending litigations shall in total not represent more than fifty percent (50 %) of the Bidder's net worth and shall be treated as resolved against the Bidder.
- e) NCC Certificate valid practicing license, grade 5 or 6, category B or C
- f) Engineering Institution of Zambia valid practicing license(s) for firm or technical
- g) Summary CVs (not more 1 page per key personnel)
- h) List of key personnel with their qualifications & years of experience
- i) List of plant/equipment relevant to the works
- j) Reference letters from clients of similar projects
- k) List of similar projects done by the firm (title, works, client, value, status)
- l) Schedule of works in weeks

1.5 Validity of Bid

All Bids shall remain valid for acceptance for a period of **30 days** from the date of submission. During this period the Bids may not be modified or withdrawn

1.6 Costs and Expenses of Bidding

All costs, expenses or losses incurred by the bidder in connection with the preparation and submission of the Bids shall be borne by the bidder

1.7 Pricing

All prices should be quoted inclusive of duties and exclusive of VAT.

1.8 Award of Contract

The successful Bidder shall be notified of award of contract as soon as practicable after acceptance of the bid, provided that the Bidder is determined to be qualified to perform the Contract satisfactorily by the funder (UNICEF/KfW)

The following documents will constitute part of the contract; **Purchase Order (PO)**, and all correspondence that will be entered into after signing the PO.

CARE reserves the right to accept or reject any bid without giving reasons thereof. Please further note that the lowest priced Bids will not necessarily be awarded a contract. The Contract will be awarded to the most economical bidder and **NOT** necessarily the lowest bidder.

1.9 Modification of Contract

CARE may at any time without invalidating the contract and without notice to the sureties make modifications, deductions or alterations to the contract, and may require the suppliers, after negotiation, to perform extra work.

1.10 Termination of Contract

CARE shall have the right, upon written notice to the Contractor, to terminate the contract in whole or part thereof. Such termination shall be effective in the manner specified in the notice and shall be without prejudice to any claims which the purchaser may have against the vendor.

In receipt of such notice, the contractor shall, unless the notice directs otherwise, immediately discontinue work and the placing of orders for materials, equipment and services. Vendors shall, if requested, make every reasonable effort to cancel all existing orders or sub-contracts upon such additional terms as are satisfactory to the purchaser.

Upon such termination it is agreed that:

1.10.1 The obligations of contractor shall continue as to bona fide obligations assumed prior to date of termination; and

1.10.2 CARE will pay to the contractor the sum of the following as full compensation under the contract: (i) The value of services performed to the satisfaction of the purchaser prior to such termination less payments previously made to suppliers; and (ii) any expenses which, in the opinion of the purchaser were necessitated by the cancellation of the contract.

1.10.3 The contractor shall provide for termination of sub-contracts and supply contracts on terms whereby (a) termination may be arranged on short notice and at minimum expense and (b) no allowance shall be made for loss of profits. No compensation shall be payable to the vendor for obligations which in the purchaser's reasonable opinion were incurred by the vendor through failure to obtain such termination provisions.

1.11 Disputes

It is mandatory to make every reasonable effort, in good faith, to settle amicably all disputes or claims relating to the Purchase Order, through face-to-face negotiations between the parties authorized to settle. If the parties do not agree within five (5) working days, they shall refer the matter to management, who shall pursue discussions to reach a settlement. If no settlement is reached within a further five (5) working days, after referring the dispute, or claim, to senior management, the parties agree to have recourse to mediation and to bear the cost equally. The parties agree jointly to choose a mediator. The parties shall take part in the mediation process in good faith for ten (10) working days (or longer if the dispute is complex).

If the parties fail to resolve such a dispute or difference by mutual consultation and mediation within twenty-eight (28) days from the commencement of such consultation, either party may require that the dispute be referred for resolution to the formal mechanism.

1.12 Applicable Law

The law governing this contract awarded as a result of this bid shall be that of Zambia and governed by Zambian Laws.

1.13 Eligible Bidders

1.13.1 This RFP is open to all eligible bidders/contractors of minimum grade 5 or 6, category B or C

1.13.2 All bidders shall provide qualification Information (see below), a statement that the Bidder (including all members of a joint venture and subcontractors) is not associated, nor has been associated in the past, directly or indirectly, with the consultant or any other entity that has prepared the design, specifications, and other documents for the project or being proposed as Project Manager for the Contract. A firm that has been engaged by CARE International to provide consulting services for the preparation or supervision of the works, and any of its affiliates, shall not be eligible to bid.

1.13.3 Government-owned enterprises in Zambia may only participate if they are legally and financially autonomous, operate under commercial law, and are not a dependent agency of CARE International.

1.13.4 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the Zambia Public Procurement Authority

1.13.5 Qualification Information

Notes on Form of Qualification Information

The information to be filled in by bidders in the following pages will be used for purposes of post-qualification. This information will not be incorporated in the Contract. Attach additional pages as necessary.

Individual Bidders or Individual Members of Joint Ventures	1.1	Constitution or legal status of Bidder: [attach copy]
	1.2	Total annual volume of construction work performed in five years, in the internationally traded currency specified in the Bidding Data: [insert]

1.3 Work performed as prime Contractor on works of a similar nature and volume over the last five years. The values should be indicated in the same currency used for Item 1.2 above. Also list details of work under way or committed, including expected completion date.

Project name	Name of client and contact person	Type of work performed and year of completion	Value of contract	
(a)				
(b)				

1.4 Qualifications and experience of key personnel proposed for administration and execution of the Contract. Attach biographical data.

Position	Name	Qualifications & Registration with professional body (e.g., EIZ for principal personnel)	Years of experience (general)	Years of experience in proposed position	
(a)					
(b)					

1.5 Proposed subcontracts and firms involved.

Sections of the Works	Value of subcontract	Subcontractor (Name and address)	Experience in similar work	
(a)				
(b)				

1.6 Financial reports for the last two years: balance sheets, profit and loss statements, auditors' reports, etc. **List below and attach copies.**

1.7 Name, address, and telephone, telex, and facsimile numbers of Employers that may provide references

1.8 Statement of compliance with the requirements of Sub-Clause 1.13.2 above.

1.9 Proposed Program (work method and schedule). Descriptions, drawings, and charts, as necessary, to comply with the requirements of the bidding documents.

Additional

2.1 Bidders should provide any additional information required in the Proposal Data

Requirements

1.14 Site Visit

1.14.1 The Bidder, at the Bidder's own responsibility and risk, should visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering a contract for construction of the Works.

The costs of visiting the Site shall be at the Bidder's own expense.

Interested bidders shall arrange for site visits with the project Manager's representatives:

- I. Aim Kushikila, 0973846345, Director of Works, Mwanabombwe Town Council
- II. Layford Jere, 09777717127, Development Officer- Technical, Care International

At the end of the site visit, a site visit certificate shall be issued to the interested bidder which shall form part of the bidding documents without which the bid will be **null and void**.

1.15 Bid Opening and Evaluation

1.15.1 Process to Be Confidential

Information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any effort by a Bidder to influence CARE International's or the Technical Evaluation Committee's processing of proposal or award decisions may result in the rejection of his proposal.

1.15.2 Clarification of Bids and Contacting the Employer

From the time of proposal opening to the time of contract award, if any bidder wishes to contact CARE International or Technical Evaluation Committee on any matter related to the proposal, it should do so in writing or by email.

To assist in the examination, evaluation, and comparison of proposals, Technical Evaluation Committee may ask any Bidder for clarification of the Bidder's proposal, including breakdowns of the prices in the activity schedule. The request for clarification and the response shall be in writing or by email, but no change in the price or substance of the proposal shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by Technical Evaluation Committee in the evaluation of the proposals.

Any effort by the Bidder to influence CARE International or Technical Evaluation Committee in the proposal evaluation, comparison or contract award decisions may result in the rejection of the Bidders' bid.

1.15.3 Examination of Bids and Determination of Responsiveness

Prior to the detailed evaluation of proposals, the Technical Evaluation Committee will determine whether each proposal (a) meets the eligibility criteria defined in Clause 3; (b) has been properly signed; and (c) is substantially responsive to the requirements of the bidding documents.

A substantially responsive proposal is one which conforms to all the terms, conditions, and specifications of the proposal documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Works; (b) which limits in any substantial way, inconsistent with the bidding documents, the Employer's rights or the Bidder's obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

If a proposal is not substantially responsive, it will be rejected by Technical Evaluation Committee, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

1.15.4 Correction of Errors

Proposals determined to be substantially responsive will be checked by Technical Evaluation Committee for any arithmetic errors. Errors will be corrected as follows:

- (a) where there is a discrepancy between the amounts in figures and in words, the amount in words will govern; and
- (b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern, unless in the opinion of District Technical Evaluation Committee there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted will govern, and the unit rate will be corrected.

The amount stated in the proposal will be adjusted by Technical Evaluation Committee in accordance with the above procedure for the correction of errors and, with the concurrence of the Bidder, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, the proposal will be rejected.

1.15.5 Currency for Proposal Evaluation

Proposals will be evaluated as quoted in the Zambian Kwacha

1.15.6 Evaluation and
Comparison of Bids

Technical Evaluation Committee will evaluate and compare only the proposals determined to be substantially responsive,

In evaluating the proposals, Technical Evaluation Committee will determine for each proposal the evaluated proposal price by adjusting the proposal price as follows:

- (a) making any correction for errors,
- (b) excluding provisional sums and the provision, if any, for contingencies in the Bill of Quantities, but including Day work, were priced competitively.
- (c) making an appropriate adjustment for any other acceptable variations, deviations, or alternative offers submitted in accordance with Clause 17; and
- (d) making appropriate adjustments to reflect discounts or other price modifications offered in accordance with Sub-Clause 22.5.

Technical Evaluation Committee reserves the right to accept or reject any variation, deviation, or alternative offer. Variations, deviations, and alternative offers and other factors which are in excess of the requirements of the proposal documents or otherwise result in unsolicited benefits for Technical Evaluation Committee will not be taken into account in proposal evaluation.

1.15.7 Post qualification

In the absence of pre-qualification, Technical Evaluation Committee will determine to its satisfaction whether the Bidder selected as having submitted the lowest evaluated responsive tender meets the minimum qualifying criteria specified in this tender and is otherwise qualified to perform the contract satisfactorily.

The determination will in detail take into account the Bidder's financial, technical and production capabilities, in particular its contract work in process, future commitments and current litigations. These matters will be assessed based upon renewed detailed examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder in its application for pre-qualification, additional information requested by the tender documents as well as such other information as Technical Evaluation Committee deems necessary and appropriate.

An affirmative determination will be a prerequisite for award of the contract to the Bidder. A negative determination will result in rejection of the Bidder's proposal, in which event Technical Evaluation Committee will proceed to the next lowest evaluated proposal to make a similar determination of that Bidder's capabilities to perform satisfactorily.

The capabilities of the vendors and subcontractors proposed in the tender to be used by the lowest evaluated Bidder will also be evaluated. Their participation should be confirmed with a letter of intent or similar documentary evidence. Should a vendor or subcontractor be determined to be unacceptable, the tender will not be rejected, but the Bidder will be required to substitute an acceptable vendor or subcontractor without any change to the tender price.

2 SPECIFICATIONS

2.1 Technical specifications for small, piped water supply systems

2.1.1. General

Generally, the supplied items shall be of durable material manufactured according to the ISO standard system or systems of similar or stronger requirements. Refer to attached drawings.

Wherever reference is made in the Technical Specifications to specific standards and codes to be met by the goods and materials to be furnished or tested, the provisions of the latest current edition or revision of the relevant standards or codes in effect shall apply, unless otherwise expressly stated in the Specifications. Where such standards and codes are national or related to a particular country or region, other authoritative standards that ensure substantial equivalence to the standards and codes specified will be acceptable. Indications of physical sizes and measurements shall be considered as minimum sizes, unless otherwise specified.

The Contractor shall ensure that the specifications and all documentation relating to procurement and installation of goods for the programme are prepared on an impartial basis so as to promote competitive tendering.

2.1.2 Specification of Works

1.1 Scope of Works

The scope of works shall consist of disassembling the hand pumps, redevelopment, conducting a pumping test, selecting a suitable solar pump, supply and installation of solar water pumps, construction of steel tank stands, supply and installation of tank, fencing, construction of water network and water points.

1.2 Pumping test for Solar Installations

Groundwater yield assessments which were conducted by pumping tests on boreholes were for the installation of hand pumps but yields of 0.5 l/s or more are expected in these areas for properly constructed and developed boreholes. This yield can be supplied from a pump capable of

being installed in the 5-inch borehole casing which were already constructed on the project. Therefore, a more comprehensive pumping test should be conducted on the borehole where the pump will be installed.

It must be recognised that this is a solar system so the peak daily demand must be met not over 24 hours but over a much shorter period of peak sunlight. Therefore, care must be taken to avoid overstressing the borehole during sunlight hours.

The pumping test design should be reviewed with the client depending on the water demand of the community and the yield potential of the borehole.

For this assignment, only constant discharge test (CDT) followed by a recovery test will be carried out. The following is the procedure;

- Ensure the pump has a non-return valve at the bottom.
- Install a pump into the borehole to a depth of 45m or more and water discharge pipe of not less than 80 m length, diameter capable of conveying at least 0.5l/s of water.
- Perform calibration test at varying pump discharges for 20 minutes at 5 different rates. Select suitable pump test rates for the constant discharge test.
- Perform a constant discharge test (CDT) or Constant Rate Test (CRT) for 6 hours. This will indicate whether the aquifer is capable of sustaining the pumping rate.
- Perform a recovery test for 4 hours immediately after continuous discharge test.

The pumping test must be carried out under the supervision of a hydro-geologist, because this test is far more complex than the simple test which were done for hand pump installations on the project.

The safe yield is the yield that can be abstracted without draw-down beyond half of the available water column above the pump installation depth and upon achieving a stabilize Dynamic Water Level within 4 hours of continuous discharge test.

1.3 Constant Rate Test

After the step draw down test, allow the borehole to recover fully before starting the Constant test. Select a suitable discharge at which to perform the constant pumping. Obtain water levels in the borehole as the pumping continues. This test may last for 4 - 6 hours. The longer the test is carried out, the more information it can give about the aquifer.

1.4 Recovery Test

This is the test that follows after constant discharge test. At the end of the test, switch off the pump and start obtaining water levels in the borehole. The water level in the borehole starts to rise. This is the recovery of the borehole. This test can last for several hours depending of the aquifer properties.

1.5 During the test

- Start pump and stop watch simultaneously. If something goes wrong with the equipment in the first few minutes stop the test, for recovery and start again.
- Measure the water level every 30 seconds for the first 10 minutes, every 1 minute until 30 minutes ; every 5 minutes to 2 hours and every 10 minutes after that. If there is an observation well nearby measure the water levels at intervals like the pumping well.
- The borehole must not be allowed to recover between during the step draw down test.
- Allow the borehole to recover before starting the CRT.
- Measure the pump discharge using a container of known volume every 1 hour.
- After the constant test, switch off the pump and immediately start measuring recovery water level.

1.6 Equipment for pumping test

The proposed equipment for the pumping test shall comprise;

- At least 5 Kva electric generator,
- Water depth measuring meter,
- Submersible pump with discharge of 2 l/s and head of 80m
- 50m pump riser pipes
- 80m of 50mm diameter discharge pipe
- Stop watches
- Tools for lowering and uplifting the pumps

2.0 Solar powered system

Before delivering the solar pump, controller and panels, the supplier must demonstrate that the equipment meets the specification all are better. The following are the specifications for solar pump, panel, controller and stand.

2.1 Pump specifications

- a) Solar powered pump,
- b) Maximum flow: 3600 - 3800 litres per hour
- c) Maximum Head: 80 – 100m
- d) Solar centrifugal pump
- e) Brushless DC pump system
- f) Stainless steel material
- g) Pump with inbuilt / external controller
- h) Outlet diameter 32mm

2.2 Solar panels specifications

Solar modules generate electricity as soon as they are exposed to light. One module on its own is below the safety extra voltage level, but multiple modules connected in series (summing the voltage) represent a danger. Therefore, a danger warning sign must be fitted as a warning.

The panels should be poly-crystalline solar panels with the following features or better;

- a) Rated maximum power (Pm): 260 Watts
- b) Tolerance: 0 - 3%
- c) Voltage at Pmax (Vmp): 30.7 V
- d) Current at Pmax (Imp): 8.47A
- e) Open circuit Voltage (Voc): 37.4V
- f) Short-circuit current (Isc): 8.89A
- g) Normal Operating Cell Temperature (NOCT): 4+/-2 degrees C

h) Maximum System Voltage:		1000VDC
i) Maximum series Fuse rating :	15A	
j) Operating Temperature:		-40 degrees C to +85 degrees C
k) Application class:		Class A
l) Weight:		18Kg
m) Dimensions (mm):		1640x992x35

2.3 Controller specifications

- a) Rated voltage: 48V
- b) Max voltage: 96V
- c) Max input current: 15Amps
- d) The solar array open voltage /panels must be less than the controller max input voltage.
- e) The DC input voltage should be equal to the rated voltage.
- f) Do not attempt to use the controller for any other purpose than the brushless DC pump system
- g) The controller should must have a system never to run dry.
- h) The controller should have system indicators for the following; On/off, power, voltage, well, tank, Up and down, Enter, Switch, etc

2.4 Solar panel stand

- a) Use fixed panels
- b) The stand should be of 50x50mm angle channels mild steel 4m high of the front leg
- c) Panel angle should be 15 to 25 degrees
- d) Material: Galvanized mild steel or mild steel coated with grey red oxide
- e) The footing of the stand poles should be cast in concrete measuring 40x40cmx50cm deep.
- f) The panels must be placed on a 50x50mm base and a 50x50mm angle channel welded whole round on top of the panel to protect it from theft.

2.5 Electrical cables

- a) 80m submersible 2.5mm x 3 core cable
- b) Distance borehole to tank 500m for safety reasons in some sites
- c) The total length of cable should be able to reach the position of the controller which might be fitted in a secure room/office.
- d) The float switch cable should be fitted to the floater in the tank to the controller.

2.6 Pump anchoring rope

- a) 15mm Nylon Safety rope.

2.1.3 Specifications for tank stands.

Refer to the drawing of the tank stand and foundation details

- (i) The elevated storage shall comprise 10,000liters PVC tank with an automated floating switch or tank of equivalent material which shall be assessed for strength and approved by MWDS. The storage tank shall be held or supported on a secured 6m high steel tank stand designed to support a minimum weight of 12 tones; and painted with a red oxide undercoat and green gloss paint.
 - (ii) The members for the stank stand shall comprise;
 - a) 90x90x8mm Right Square Angles (RSA) vertical main columns, at 1500mm C-C square spacing.
 - b) 70x70x6mm RSA horizontal member spaced at 2000mm C-C joined to the vertical main columns either with the bolts or welding fillet.
 - c) 50x50x5mm RSA Diagonal bracing on all sides joining the points where horizontal members are joined with the vertical columns.
 - d) 100x50x5mm C Channel top floor main members laid and placed onto the vertical columns using top floor mounting plate (250x250x5mm). The top floor platform will be complete with similar 100x50x5mm C Channel intermediary members connected to the main members.
 - e) 70x70x6mm RSA outer members for the tank to give it a square plat form to accommodate the walk way.
- The plat form will be complete with Grade 320J side expanded metal. Access to the tank platform will be provided using a ladder side protection comprising 45x5mm flat bar.

- (iii) The elevated tank shall be at least five meters (5m) away from the borehole, built on 0.8mx0.8mx0.8m deep concrete reinforced pad foundation footing with appropriate steel column reviewed and approved by the MWDS. An apron will be provided between the footings.
- (iv) The tank will be complete with DN32-65mm inlet and outlet pipes; with appropriate accessories, depending on the designed capacity of the motorised pump

2.1.4 Specifications for security fence

Refer to the drawing of the fence stand and foundation details

- (i) Solar panels and switching accessories will be secured in a fencing wire to mitigate possible damage where the solar units installed in open places. This will apply where solar panels cannot be fitted on the roof the school or health institution. The works will comprise;
 - Supply and install 2.5m height x 20m long diamond fencing wire (4mm size) mesh cladded onto 3.5m height x DN 2" Galvanized Iron (GI) fencing poles with a provision for a lockable steel gate for access into the fenced yard.
 - Supply and install 2.5m height x 1.0m width lockable steel gate hinged on DN2" GI fencing poles. The total number of GI pipes will 14.
 - All DN2" GI poles shall be anchored and embedded in concrete foundations excavated pits or holes.
 - Supply and install barbed razor wire fitted on top and around diamond fencing wire and access gate.
- (ii) Provide a lockable steel box to accommodate and contain solar switching unit which shall be fitted or held onto the stands holding the solar panels. The keys will be presented and signed for by either the

2.1.5 Specifications for Excavations

For purposes of measurement, excavation is classified as follows:

Excavation in normal material. "Normal" material is any material not classified as rock. Excavation in rock. "Rock" is defined as a material that requires the use of drifts, wedges or explosives. It is expected that no rock shall be encountered in all the sites, therefore excavations shall be considered to be in normal materials.

5.1 Trench excavation

Trenching shall be the excavation of 600mm width to a depth of not more than 1.0m for water supply pipe within the premises of the institutions extending to staff houses and nearby communities. The contractor should also refer to the working drawings attached.

Alternatively, the minimum width of pipe trench shall be indicated on the drawings. This dimension will be used for measurement of the work and no separate measurement will be taken or allowed for overbreak. The Contractor shall ensure that at any point the width of the pipe trench is sufficient to permit the pipe to be laid and bedding to be placed and compacted around the pipe to the Engineer's satisfaction.

If at any time trench or excavation becomes dangerous, the Engineer shall be at liberty to call upon the Contractor to restore it to a proper condition at three hours' notice. Excavated material approved by the Engineer for use as backfill shall be stockpiled alongside or near the trenches. All surplus material shall be removed to tip.

The Contractor shall give notice to the Authority whenever excavating across a road. Sufficient danger notices to the satisfaction of the Authority should be put in place to warn road users. Where there is a nearby road culvert, the pipe should pass through the culvert with proper support.

The Contractor shall give notice to the Engineer whenever the trench invert is about to be ready for examination and further work shall proceed thereon until the Engineer's approval is given.

5.2 Foundations and thrust blocks

Where shown on the Drawings or directed by the Engineer that concrete shall be cast against the existing ground, the excavation shall be neatly excavated to the shape required. Where the foundation is inadvertently over-excavated, the space between the foundation and the soil shall be backfilled with Class C20 concrete or as directed by the Engineer.

5.3 Backfilling of trenches

Following laying, jointing, testing of pipelines and placement of pipeline bedding and surround, backfilling of trenches shall be complete in 300 mm layers to a level of 75 mm above the surrounding ground with approved backfill material.

Under roads crossings, the backfilling to pipes shall be brought up in 150 mm layers. Compaction shall be by hand using hand rammers of at least

7 Kg mass or with approved mechanical equipment.

5.4 Reinstatement

The Contractor shall be responsible for the temporary and permanent reinstatement of all roads, fields, paths, gardens, verges and the like, whether public or private, which are affected by his operations.

Immediately backfilling of trenches has been completed, temporary reinstatement of the ground shall take place.

6.0 Pipe laying

6.1 Pipe joining

The Contractor shall place and thoroughly compact an approved bedding material over the trench formation, after which it shall be inspected and approved by the Engineer. Just before pipe laying, the trench shall be cleaned of all stone. Soil and other debris that might have fallen therein. The pipes shall then be laid upon the bed with the bed being shaped to ensure uniform bearing of the whole length of the pipe, which shall include a depression being made in the bed to accommodate each pipe joint. In laying a non-pressure pipe, the work shall commence at lower end and proceed uphill.

All pipes and fittings shall be examined for flaws, cracks, or any other damage immediately prior to laying, and any defective pipe or fitting shall be rejected.

6.1 Connections to existing pipe lines

The Contractor shall give the Engineer at least ten days' notice the contractor, in writing of the date that the connection shall be made. All branches, valves, connectors, materials and tools for cutting and preparing the pipe and making the connection shall be ready before any work is done on the pipe. The nearest sectional valves shall then be shut off, the pipe drained and the connections made, all as expeditious as possible to minimize disruption of the pipeline.

7.0 Communal Taps

The water points shall be constructed from 150mm concrete blocks with a slab. The taps shall be 1 ½ “(one and half inch) and shall have a locking mechanism to avoid unnecessary usage of water.

The water point shall have a drainage channel of 5m and a soak away chamber. The standpoint shall be embedded in concrete vertical support column, built on a substructure concrete foundation footings/apron i.e. Construct 1m x 1m concrete square aprons draining in 1mx1m x 0.8m deep honey comb blockwork soak away box of filled with 50-100mm stones, covered with 100mm top slab. The aprons shall be provided with sufficient slopes to channel spilled water towards the soak-away boxes as indicated on the drawings

The closest water point shall be located 50m away from the borehole and tank. The water conveying pipe shall be 50mm (2”) uPVC pipe class 6.

8.0 Concrete casting

8.1 Aggregates

Aggregates shall be hard, clean and free of all organic material. Samples of all aggregates to be used shall be brought to the Engineer’s Representative for approval before delivery to the site. Coarse aggregates shall be comprised of clean, unweathered, hard, well graded material of between 9.5mm and 20mm in size.

Sand/gravel shall consist of grains with a maximum size of 9.5 mm. It shall be free of soil, clay, organic matter and other impurities and shall contain no more than 5% silt. It is essential that the contractor make every effort to locate material before construction starts.

8.2 Water

Water used for mixing concrete and for curing shall be equal to potable water in physical and chemical properties.

8.3 Cement

Cement shall be normal Portland cement delivered in 50kg bags. The bag shall be in perfect condition when delivered to the site and shall be not more than 3 months old at the time of use.

8.4 Steel Reinforcement

The steel reinforcements shall be prepared using con-force wire 3mm mild steel, free from loose rust (rust has to be removed with a steel brush).

9.0 Quality of Works and Workmanship

9.1 Concrete Mix

The concrete for the superstructure shall be mixed to a ratio of 1:2:4 to provide a compressive strength at 25Mpa in a period of 28 days. The compressive strength of the cement will be tested using a Schmidt hammer. Any civil works found to be below the standard after the curing period shall be removed at the contractors' expense and new civil works constructed with the required strength.

9.2 Curing

The concrete works shall be protected from rapid drying for fourteen (14) days by watering daily.

10 On Site Training of Pump Operator

During the installation of solar pumps, panels and valves, staff from the local District Council and/or pump menders / pump caretakers shall be in attendance. While carrying out the normal installation works, the Contractor's Team shall train the local officials in procedures and methods necessary for installation and commissioning of the solar, electric cable connections, and procedure to take when the float valve in the tank has malfunctioned.

Details of the training, as well as any training materials, will be provided by the Engineer's Representative prior to commencement of activities.

11.0 Detailed specification

For detailed specification from other UNICEF supported water programmes are attached.

3.0 Contractor Terms of Reference for Environmental and Social Management Plan, and Health and Safety Management plan

3.1 Contractor is to demonstrate understanding, knowledge and experience in avoiding, minimizing and mitigation of potential adverse environmental and social impacts and risk associated with the construction of the project.

Prior to commencement of works contractor is to establish work execution planning documents, approved by Director of Works, UNICEF as applicable, including:

- Approach to comply with environmental and social management safeguards, including developing the site -specific Environmental and Social Management Plan (ESMP),
- Construction Health and Safety including PPE requirements, including developing site-specific Health and Safety Management Plan (HSMP)
- Approach to comply with the CODE OF CONDUCT for Preventing Sexual Exploitation and Abuse

3.2 After these plans have been approved, the Contractor, in association with the Director of Works, shall review and revise these documents to be consistent with the Contractor's works execution planning documents.

4.0LIST OF DRAWINGS

The following are the list of drawings. They are available from the Client in soft copy

Drawing No. 1 Tank stand assembly

Drawing No. 2 Solar pump installation assembly

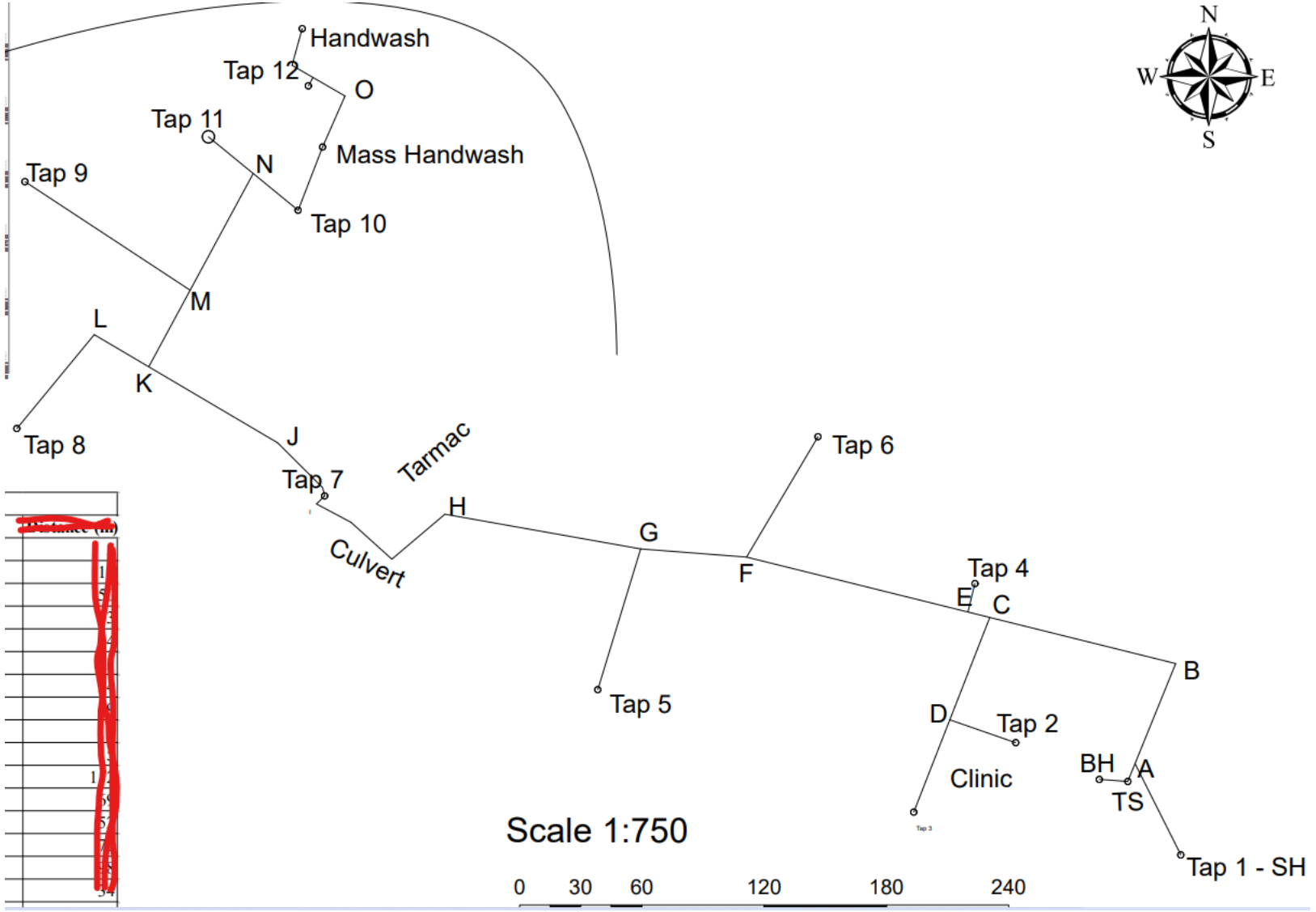
Drawing No 3 Fence Wire

Drawing No. 4 Civil Works

Drawing No. 5 General Borehole Design in Consolidated formations

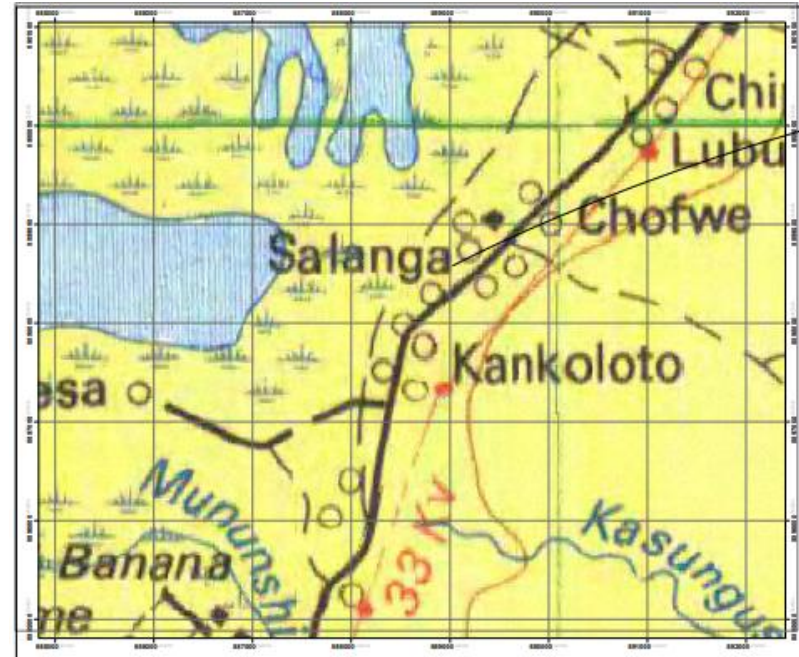
Drawing No. 6 General Borehole Design in Unconsolidated formations

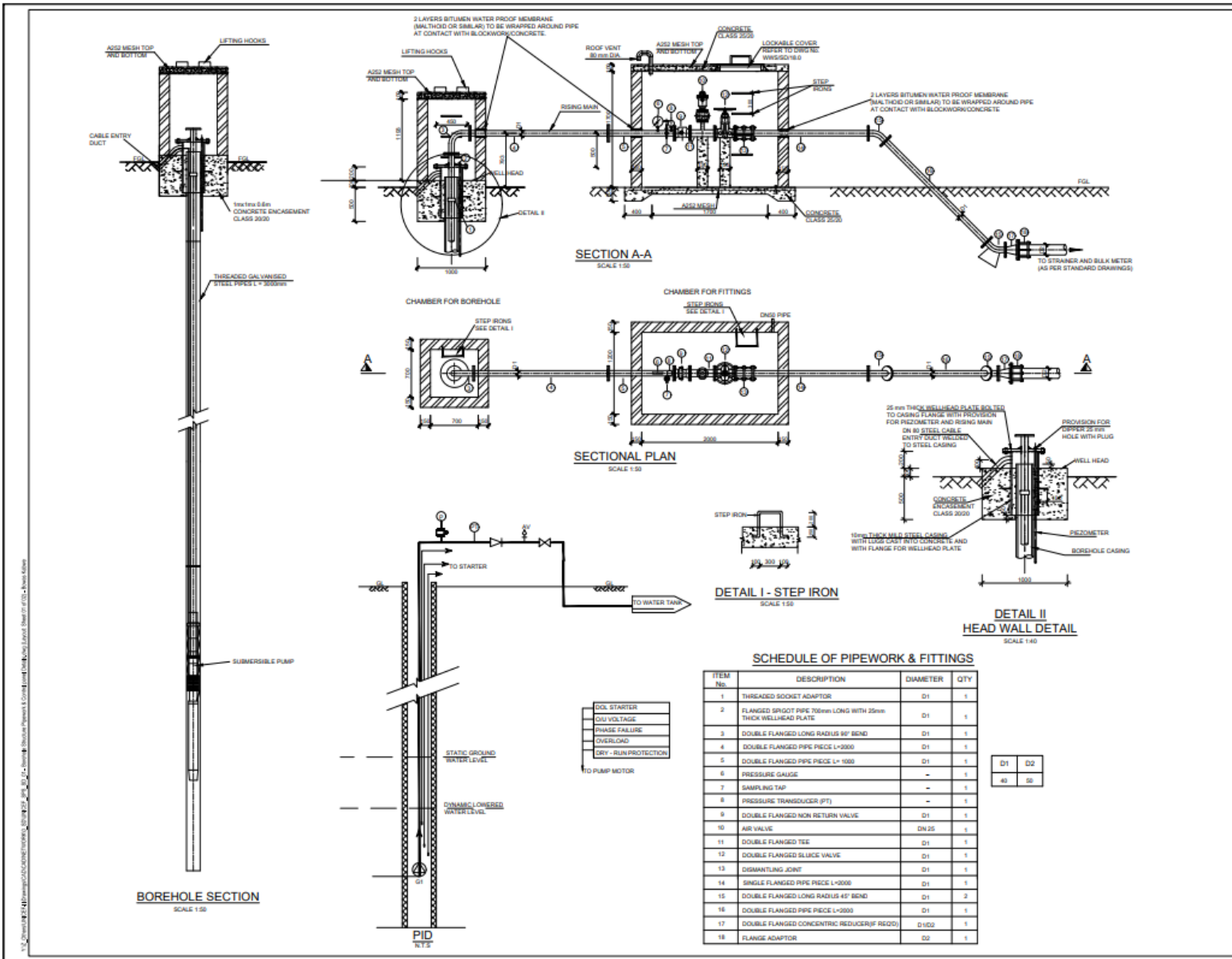
STANDARD DRAWING



Location Plan Scale 1:750 ~~Tap 3~~

UTM COORDINATES arc 1950 - Zone 35s				
Point	Eastings	Northings	Sides	Distance (m)
BH	689796	8898563	BH to TS	5
TS	689810	8898562	TS to A	10
A	689814	8898571	A to Tap 1	50
Tap 1	689836	8898526	AB	53
B	689833	8898620	BC	94
C	689705	8898547	CD	53
D	689755	8898581	D to Tap2	34
Tap 2	689755	8898581	D- Tap 3	49
Tap 3	689705	8898547	CE	11
E	689735	8898659	E to Tap 4	15
Tap 4	689735	8898659	EF	112
F	689623	8898672	F to Tap 6	69
Tap 6	689658	8898731	FG	52
G	689571	8898676	G - Tap 5	72
Tap 5	689550	8898607	GH	98
H	689475	8898693	H - Culvert	34
Culvert	689449	8898671	Curvert to I	15
Tap 7	689416	8898702	I to Tap 7	20
J	689393	8898728	J to tap 7	34
K	689328	8898762	JK	74
L	689303	8898981	KL	31
Tap 8	689265	8898735	L to Tap 8	60
M	689345	8898806	KM	43
Tap 9	689269	8898856	M to Tap 9	97
N	689373	8898855	MN	65
Tap 10	689403	8898842	N to Tap 10	29
Tap 11	689359	8898878	N to Tap 11	29
Mass Handwash	689415	8898873	Tap 10 to Mass Handwash	33
O	689426	8898898	Mass Handwash to O	28
Tap 12	689408	8898903	O to Tap 12	14
Handwash	689405	8898931	Tap 12 to Handwash	26





DRAWING REFERENCE

No.	Chg No.	Rev

NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
- BOREHOLE NUMBER SHOULD BE INDICATED ON THE CHAMBERS FOR FITTING AS DIRECTED BY THE ENGINEER.

LEGEND:

FGL FINISHED GROUND LEVEL
PID PORTABLE BOREHOLE WHICH
N.T.S NOT TO SCALE

REVISIONS

No.	Description	Date
01	Original Copy Drawing	26.11.22

REPUBLIC OF ZAMBIA

MINISTRY OF WATER DEVELOPMENT, SANITATION AND ENVIRONMENTAL PROTECTION

unicef UNICEF
for every child

Designed: D.B. Drawn: T.M.
Approved: S.D. Sheet No: 1 OF 2
Scale: AS SHOWN Date: Nov 2022

gobaInfr

gobaInfr
Plot 10, Kasamba Road
Lusaka, Zambia
T: +260 211 254000
F: +260 211 254001
E: info@gobainfr.com

Projects

Provision of Design And Supervision Services For The Programme "Enhancing Access To WASH Services In Luapula Province, Zambia"

Title
WATER SOURCE (BOREHOLES) BOREHOLE STRUCTURE PIPEWORK & CONTROL PANEL DETAILS

Drawing No UNICEF/SP/SIS/01
Rev No 00

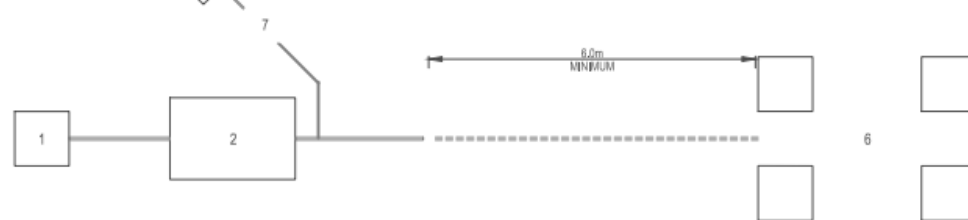
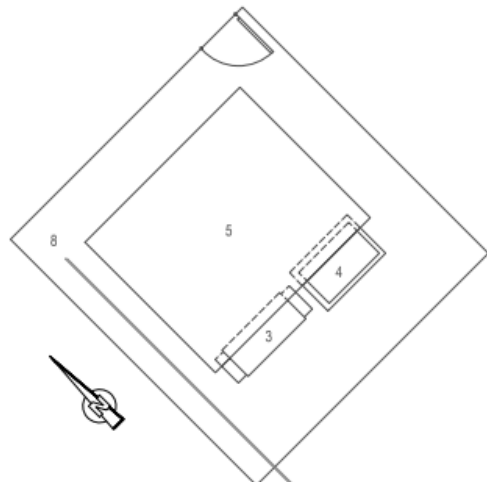


ILLUSTRATION OF SOLAR ARRAY CLEANING METHOD

SOLAR ARRAY COMPOUND LAYOUT

KEY

1. Borehole Head/ Hand Pump (see drg. no. UNICEF/SD/BH/02)
2. Borehole Monitoring Chamber (see drg. no. UNICEF/SD/BH/02)
3. Control Panel Structure (see drg. no. UNICEF/SD/BH/03)
4. Solar Array Panel (see drg. nos. UNICEF/SD/104-09)
5. Standby Generator Housing (see drg. nos. UNICEF/SD/GH/10)
6. Tank Stand (see drg. no. unicef/sd/gi/11)
7. Solar wash water supply pipe
8. Solar wash water standpipe

DRAWING REFERENCE

No.	Dwg No.	Scale

NOTES

NOTE
 Alignment of solar panel as appropriate (sloped 15 degree to north)
 Position of Solar Array compound in relation to borehole to be determined on site between Supervisor and Contractor.

Revised	By	Date

REVISIONS
 REPUBLIC OF ZAMBIA
 MINISTRY OF WATER DEVELOPMENT SANITATION AND ENVIRONMENTAL PROTECTION



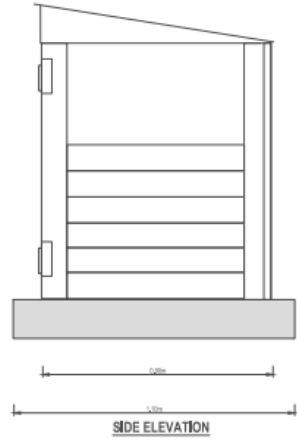
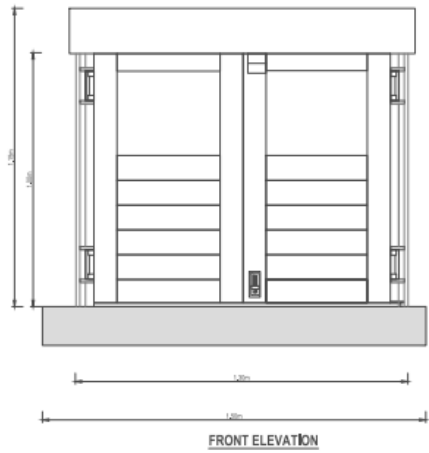
Designed: SJA Drawn: SJA
 Approved: SJD Sheet No: 1 OF 3
 Scale: AS SHOWN Date: Nov 2022

gobinfo
 Government of Zambia
 Ministry of Water Development, Sanitation and Environmental Protection
 Plot 10, Industrial Area, Lusaka, Zambia
 Tel: +260 211 224 124 Fax: +260 211 224 125
 Tel: +260 211 224 126 Fax: +260 211 224 127
 Email: info@minwater.gov.zm

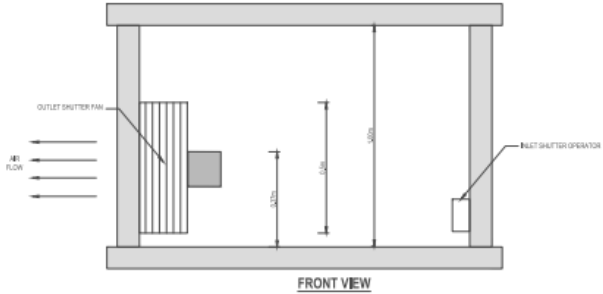
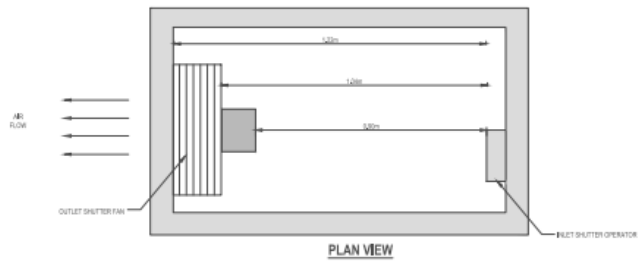
Provision of Design And Supervision Services For The Programme "Enhancing Access To WASH Services In Luapula Province, Zambia"

Solar Compound Layout and Solar Array Washing Arrangement

Drawing No: UNICEF/SD/S0302
 Rev No: 01



NOTE:
 Maximum output capacity 7kW.
 For standby for Generator up to 8000 Watts.
 For adequate ventilation, ensure distance around
 generator to be 30cm.



POWER SHELTER KIT
 TYPICAL LOCKABLE GENERATOR HOUSING FOR STANDBY GENERATOR UP TO 8000 watts

DRAWING REFERENCE	
Dwg No	Rev

NOTES

Rev	Change Description	By	Date

REVISIONS

REPUBLIC OF ZAMBIA

MINISTRY OF WATER
 DEVELOPMENT, SANITATION AND
 ENVIRONMENTAL PROTECTION



Designed: S.B	Drawn: S.B
Approved: S.D	Checked: S.D
Scale: AS SHOWN	Date: Nov 2022

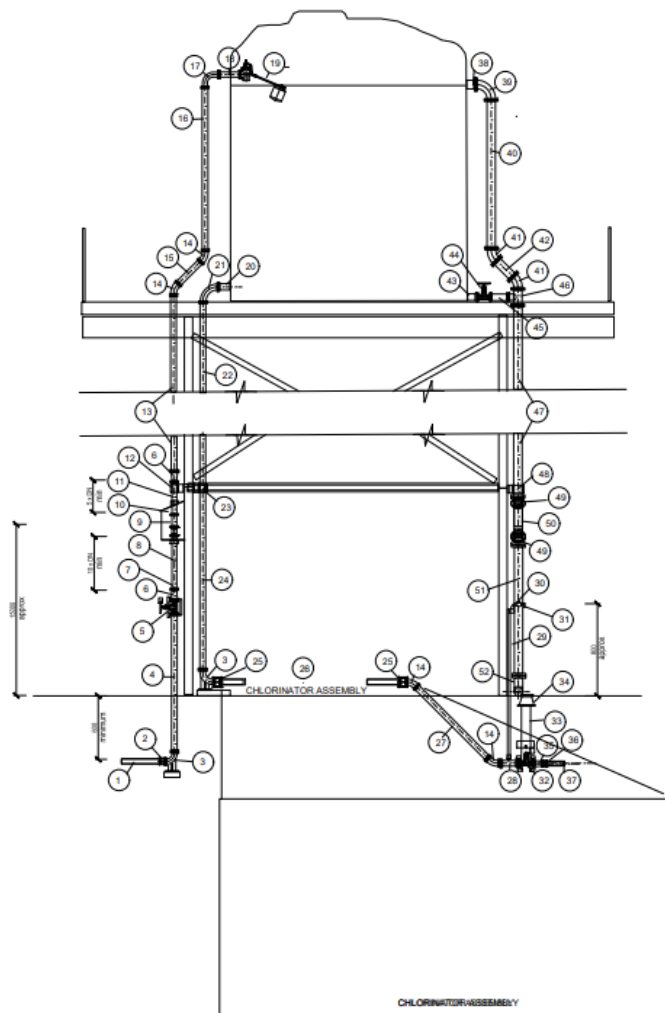
gomintec

General Services
 17A, Avenue Road
 Lusaka, Zambia
 P.O. Box 37333, Lusaka
 Phone: +260 211 244470
 Email: info@gomintec.com.zm

Project:
 Provision of Design And
 Supervision Services For The
 Programme "Enhancing Access
 To WASH Services In Capriva
 Province, Zambia"

Title:
 GENERATOR SHED THROCALDETAL

Drawing No: UNICEP/SS/02/02
 Rev No: 01



SECTIONAL ELEVATION ON PIPEWORK

PIPEWORK

ITEM No.	DESCRIPTION	DIAMETER	QUANTITY
1	HDPE Pumping Main	50	varies
2	Flange Adapter HDPE to Steel	50	1
3	Steel double flanged Duckfoot Bend	50	2
4	Steel double flanged Pipe	50	1
5	Steel double flanged handwheel operated Sluice Valve	50	1
6	Steel double flanged Taper	50 x 40	2
7	Steel double flanged Restraining Joint	40	1
8	Steel double flanged Pipe L => 400 mm	40	1
9	Double flanged Bulk Water Meter (refer specification)	40	1
10	Pipe mounted lockable Meter Box	n/a	1
11	Steel double flanged Pipe L => 200 mm	40	1
12	Steel pipe support Clamp Bracket	50	2
13	Steel double flanged Pipe	50	1
14	Steel double flange 45 degree Bend	50	4
15	Steel double flanged Pipe piece	50	1
16	Steel double flanged Pipe piece L approx 1600 mm	50	1
17	Steel double flange 90 degree Bend	50	1
18	Steel double flanged inlet Pipe piece	50	1
19	Ball Float Valve (refer specification)	50	1
20	Single flange Outlet Fitting	50	1
21	Steel double flange 90 degree Bend	50	1
22	Steel double flanged Pipe	50	1
23	Steel pipe support Clamp Bracket	50	2
24	Steel double flanged Pipe	50	1
25	Steel double flanged Restraining Joint	50	2
26	Cartridge type Chlorinator assembly (refer specification)	50	1
27	Steel double flanged Pipe piece	50	1
28	Steel unequal Tee branch female threaded	50 x 20	1
29	Steel threaded Riser Pipe c/w double threaded socket	20	1
30	Steel threaded 90 degree bend c/w double threaded socket	20	1
31	Brass lockable lever arm Tap c/w dielectric joint (refer specification)	20	1
32	Steel double flange Sluice Valve, tee key type c/w Tee Key	50	1
33	Valve Riser Pipe for Tee Key Operation	50	1
34	Valve Box, hinged, lockable	to suit	1
35	Steel double flange Taper (if required to suit Distribution Pipe dia.)	50 x ...	1
36	Steel to HDPE flange adapter (to suit Distribution Pipe dia.)	to suit	1
37	HDPE Distribution Main	as indicated	varies
38	Flanged overflow Outlet	80	1
39	Steel double flange 90 degree Bend	80	1
40	Steel double flanged Pipe piece	80	1
41	Steel double flange 45 degree Bend	80	2
42	Steel double flanged Pipe piece	80	1
43	Flanged washout Outlet	50	1
44	Steel double flanged Sluice Valve, handwheel operated	50	1
45	Steel double flanged Pipe piece	50	1
46	Steel unequal double flanged Tee	80 x 50	1
47	Steel double flanged Pipe	80	1
48	Steel pipe support Clamp Bracket	80	2
49	Steel double flange 45 degree Bend	80	2
50	Steel double flanged Pipe piece	80	1
51	Steel double flanged Pipe	80	1
52	Steel single flange 90 degree Downspout Boot Outlet to drain	80	1

DRAWING REFERENCE	
No.	Tit.

NOTES

The illustration is for a Tank Stand with a single elevated Tank. Where two equal-sized tanks are specified or indicated in the Bills of Materials, the Tank Stand shall be provided with three sets of Vertical Members instead of two and with six pad foundations instead of four. The Tank Stand footprint shall be increased from 3.00 m by 2.44 m to not less than 3.00 m by 4.88 m, the access platform being increased by a similar amount.

Rev	Original Graph Drawing	30.11.20

REVISIONS

REPUBLIC OF ZAMBIA

MINISTRY OF WATER DEVELOPMENT, SANITATION AND ENVIRONMENTAL PROTECTION

unicef UNICEF
for every child

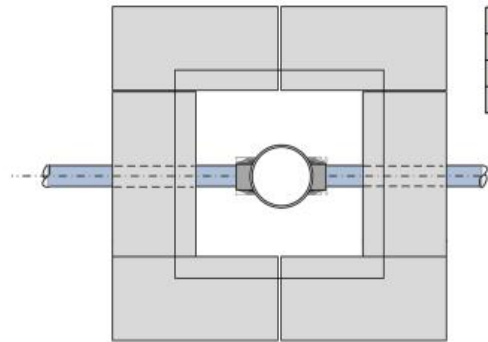
Design: D.B. Drawn: B.K.
Approved: S.D. Sheet No: 2 OF 2
Scale: AS SHOWN Date: Nov 2022

www.infra

Project: Provision of Design And Supervision Services for The Programme "Enhancing Access To WASH Services In Lusopos Province, Zambia"

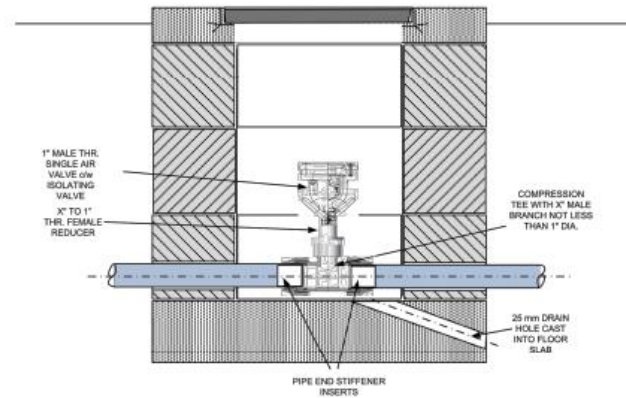
STANDARD WATER TANK STAND

Drawing No: UNICEF/SPS/S003
Rev No: 01



PLAN VIEW ON AIR VALVE CHAMBER
(COVER REMOVED)

DN 'X'	REMARKS
63	as appropriate
50	
40	



SECTION THROUGH AIR VALVE CHAMBER

NOT TO SCALE

DRAWING REFERENCE

No.	City No.	Rev.

NOTES

NO.	DESCRIPTION	DATE
01	Original Gupta Drawing	30.11.2022
02		

REVISIONS

REPUBLIC OF ZAMBIA

 MINISTRY OF WATER
 DEVELOPMENT, SANITATION AND
 ENVIRONMENTAL PROTECTION

 UNICEF
 for every child

Designed: G.B. Drawn: S.R.
 Approved: S.D. Sheet No: 1 OF 1
 Scale: NTD Date: NOV 2022

 acmInfEng
 1000 Independence Ave
 10000 Washington DC
 USA
 Tel: +1 202 462 1000
 Fax: +1 202 462 1001
 Email: info@acmInfEng.com
 Website: www.acmInfEng.com

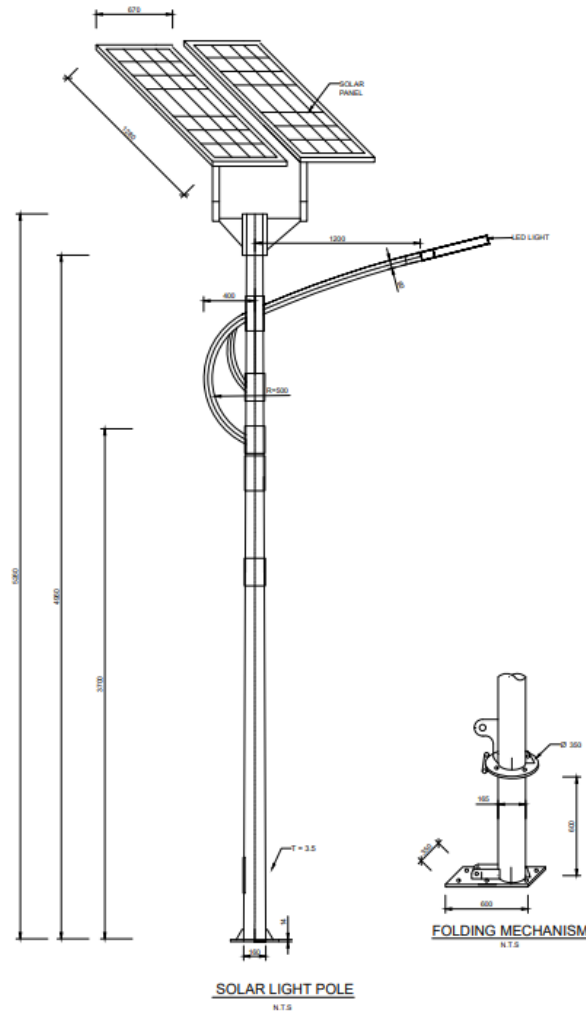
Project
 Provision of Design And
 Supervision Services For The
 Programme "Enhancing Access
 To WASH Services In Luapula
 Province, Zambia"

Title
 AIR VALVE
 CHAMBER DETAIL

Drawing No: UNICEF/SP/SO/004

Rev No: 00

\\z:\shared\2024\202406\CONTRACTOR\202406\20240601\Light Pole\Light Pole.dwg 2024/06/01 11:42:00



SOLAR LIGHT POLE
N.T.S

FOLDING MECHANISM
N.T.S

DRAWING REFERENCE

Qty	No	Ref

NOTES

NO	REVISIONS	DATE

Original Issue Control No. 11-2024
Date: 11/06/2024

REPUBLIC OF ZAMBIA
 MINISTRY OF WATER
 DEVELOPMENT, SANITATION AND
 ENVIRONMENTAL PROTECTION

unicef UNICEF
 for every child

Designed: G.B. Sheet: 1 of 1
 Approved: S.D. Sheet No: 1 OF 1
 Scale: AS SHOWN Date: NOV 2023

GOB Infra
 Plot 10, Industrial Area, Lusaka
 P.O. Box 37330, Lusaka
 Tel: +260 211 200 000 Fax: +260 211 200 000
 Email: info@gobinfra.zm

Project: Provision of Design And Supervision Services For The Programme "Enhancing Access To WASH Services In Luapula Province, Zambia"

Title: SOLAR LIGHT POLE

Drawing No: UNICEF/SP/S/00/07
Rev No: 00

5.0BILLS OF QUANTITIES

Preamble

- General

1. The Bills of Quantities are as follows:

Bill 1: Preliminary and General Items

Bill 2: PVC Tank and Steel Tank Stand Installations

Bill 3: Water Distribution

Bill 4: Fencing

Bill 5: Water Supply Source & Equipping

Bill 6: Chlorinator installation

2. Abbreviations used herein shall have the following meanings:

mm = millimeter

cm = centimeter

m = metre

km = kilometre

m² = square metre

m³ = cubic metre

kg = kilogram

t = tonne (1000 kilograms)

l = litre

h = hour

No. = Number

Ls = lump sum

Lm = linear meter

Bh = Borehole

BILL OF QUANTITIES					
SALANGA WATER SCHEME IN MWANSABOMBWE DISTRICT					
Improving WASH services in Luapula Province					
SUMMARY					
Bill 1 : Preliminary and General Items					
Bill 2: PVC Tank and Steel Tank Stand Installations					
Bill 3: Water Distribution					
Bill 4: Fencing					
Bill 5: Water Supply Source & Equipping					
Bill 6: Chlorinator installation					
Sub-Total					
Vat @ 16%					
Add Contingency @ 10%					
Grand-Total					

Item No.	Item Description	Unit	Qty	Unit - ZMW	Amount - ZMW
Bill 1	Preliminaries and General Items				
1.1	Mobilisation and Demobilisation	Sum	1		
1.2	Allow for training of staff on operation and maintenance of water system and orientation to the plumbing system	Sum	1		
1.3	Allow for testing of water reticulation system after installation but before completely backfilling trenches especially at joints	Sum	1		
				Sub - Total	-

Bill 2	PVC Tank and Steel Tank Stand Installations				
2.1	Steel Tank Stand - Sub-Structure				
2.1.1	Removal of 100mm depth of vegetable soil over the site and dispose off material by spreading on site	m ³	3		-
2.1.2	Excavate in pickable soils in pits measuring 1200 x 1200mm and depth not exceeding 2000mm	m ³	13		-
2.1.3	Backfill in layers not exceeding 200mm around excavations using selected materials, well water and compact to 93% mod. AASHTO.	m ³	13		-
2.1.4	Reinforced concrete with a minimum strength of 25 N/mm ² and cover to reinforcement shall be 40mm .	m ³	3		-
2.2	Steel Tank Stand - Structure				
2.2.1	Supply and fix 50 x 50 x 6m x 6mm equal angles in braces	No.	25		-
2.2.2	Supply and fix 80 x 80 x 6m x 8mm equal angles in braces	No.	12		-
2.2.3	Supply and fix IPE 100 (102 x 51 x 13,000mm x 10.42kg) channels in tank platform decking	No.	4		-
2.2.4	Supply and fix square steel tubes 40mm in railing in tank stand platform	No.	8		-
2.2.5	Supply and fix M16 Holding down anchor bolts in concrete pads; bolts shall be grade 8.8	No.	24		-
2.2.6	Supply and install 2mm thick mild steel sheet, including welding to steel channels (measured elsewhere) in tank platform	No.	4		-
2.2.7	Flat Bar 40mm x 3mm x 6m	No.	5		-
2.2.8	Allow for 2 coats aluminum paint to all exposed steel work on the tank stand	5L	10		-
2.2.9	Mild steel Welding Rods	Kg	50		-
2.2.10	Cutting Discs	No.	25		-
2.2.11	Mild steel Tying Wire	Kg	4		-
2.2.12	Supply and Install approved 10,000 Ltrs PVC Water tank complete with ND40mm HDPE CL6 pipes in raising mains, joined and fitted with compression fittings as specified	5,000L	2		-
				Sub - Total	-

Bill 3	Water Distribution Network				
3.1	Excavate & Backfill in picable material for trenches not exceeding 600 deep x 300mm wide for pipework (Provisional)	m	1,500		-
3.2	Extra over excavating in hard rock (Provisional)	Sum			
3.4	Supply 63mm diameter Class 6 High Density Polyethylene (HD-PE) pipes complete with bends, reducers and tees, etc. for connecting water distribution system to staff houses and other service points as directed by the Site Engineer		515		-
3.5	Supply 50mm diameter Class 6 High Density Polyethylene (HD-PE) pipes complete with bends, reducers and tees, etc. for connecting water distribution system to staff houses and other service points as directed by the Site Engineer	m	485		-
3.6	Supply 32mm diameter Class 6 High Density Polyethylene (HD-PE) pipes complete with bends, reducers and tees, etc. for connecting water distribution system to staff houses and other service points as directed by the site Engineer	m	500		-
3.7	Supply and install 1/2" stand pipe complete with all bends, reducers, adaptors, tees, etc. and a 1/2" chrome-plated pillar tap; stand pipe to be mounted and fixed on 500 x 500mm concrete support pad as directed by Engineer	No.	12		-
				Sub - Total	-

Bill 4	Fencing				
4.1	Construct diamond wire mesh fencing, supported on 40x40x2mm square hollow steel sections, 1.8m high; and gate as specified to enclose Borehole, Solar Panels and Elevated tank	m	60		-
				Sub - Total	-
Bill 5	Water Supply Source and Equiping				
5.1	Supply & Equipp Borehole c/w Pump set (Q = 2-3l/s, H = 80m), Solar Panels, Solar support structure, inverter, Raiser pipes ,cover plate, gate valves, non return valve and float switch	No.	1		-
5.2	Supply and installation control panel with the dry run protection, surge protection all in the mental enclosure and pre-wired	No.	1		-
				Sub - Total	-
Bill 6	Chlorinator installation				
6.1	Supply and instalation of Klorman Online Chlorinator	No.	1		-
6.2	Klorman Chlorine Cartridgegs (16 cartriged per Box) for at least 6 mths	Box	150		-
6.3	Provision for Pipe Fiitings	No.	1		-
				Sub - Total	-

6.0 CONDITIONS OF CONTRACT

6.1 General Conditions of Contract

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) Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.
 - (e) Compensation Events are those defined in GCC Clause 41 hereunder.
 - (f) 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.
 - (g) 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.
 - (h) The Contractor is the party whose Bid to carry out the Works has been accepted by the Employer.
 - (i) The Contractor's Bid is the completed bidding document submitted by the Contractor to the Employer.
 - (j) The Contract Price is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.
 - (k) Days are calendar days; months are calendar months.
 - (l) 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.

- (m) A Defect is any part of the Works not completed in accordance with the Contract.
- (n) The Defects Liability Certificate is the certificate issued by Project Manager upon correction of defects by the Contractor.
- (o) The Defects Liability Period is the period **named in the PCC** pursuant to Sub-Clause 33.1 and calculated from the Completion Date.
- (p) Adjudicator means the single person appointed under Clause 23.
- (q) 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.
- (r) The Employer is the party who employs the Contractor to carry out the Works, **as specified in the PCC**.
- (s) Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
- (t) "In writing" or "written" means hand-written, type-written, printed or electronically made, and resulting in a permanent record;
- (u) The Initial Contract Price is the Contract Price listed in the Employer's Letter of Acceptance.
- (v) 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.
- (w) Materials are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- (x) Plant is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.

- (y) 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.
- (z) PCC means Particular Conditions of Contract
- (aa) The Site is the area **defined as such in the PCC**.
- (bb) 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.
- (cc) Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.
- (dd) 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.
- (ee) 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.
- (ff) Temporary Works are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
- (gg) A Variation is an instruction given by the Project Manager which varies the Works.
- (hh) The Works are what the Contract requires the Contractor to construct, install, and turn over to the Employer, **as defined in the PCC**.

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,¹ and
- (i) any other document **listed in the PCC** as forming part of the Contract.

Language and Law	1.2	The language of the Contract and the law governing the Contract are stated
Project Manager's Decisions	1.3	Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.
Delegation	1.4	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.
Communications	1.5	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.
Subcontracting	1.6	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.

¹ In lump sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule."

- Other Contractors** 1.7 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 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.
- Personnel and Equipment** 1.8 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.
- 1.9 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.
- Employer's and Contractor's Risks** 1.10 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.
- Employer's Risks** 1.11 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.
- 1.12 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.

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.

Insurance

1.13 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.

1.14 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.

1.15 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.

1.16 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.

1.17 Both parties shall comply with any conditions of the insurance policies.

- Site Data** 1.18 The Contractor shall be deemed to have examined any Site Data **referred to in the PCC**, supplemented by any information available to the Contractor.
- Contractor to Construct the Works** 1.19 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.
- The Works to Be Completed by the Intended Completion Date** 1.20 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.
- Approval by the Project Manager** 1.21 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, for his approval.
- 1.22 The Contractor shall be responsible for design of Temporary Works.
- 1.23 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 1.24 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.
- 1.25 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.
- Safety** 1.26 The Contractor shall be responsible for the safety of all activities on the Site.
- Discoveries** 1.27 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.
- Possession of the Site** 1.28 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.

- Access to the Site** 1.29 The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.
- Instructions, Inspections and Audits** 1.30 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.
- 1.31 The Contractor shall permit, and shall cause its Subcontractors and subconsultants to permit, the Government and/or persons appointed by the Government 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 Government if requested by the Government. The Contractor's and its Subcontractors' and subconsultants' attention is drawn to Sub-Clause 57.1 which provides, inter alia, that acts intended to materially impede the exercise of the Government'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 ZPPA's prevailing sanctions procedures).
- Appointment of the Adjudicator** 1.32 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.
- 1.33 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.
- Procedure for Disputes** 1.34 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.
- 1.35 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.

- 1.36 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.
- 1.37 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

Program

- 1.38 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.
- 1.39 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.
- 1.40 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period **stated**. 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.
- 1.41 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.

Extension of the Intended Completion Date

- 1.42 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion

Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.

1.43 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.

Acceleration

1.44 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.

1.45 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.

Delays Ordered by the Project Manager

1.46 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

Management Meetings

1.47 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.

1.48 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.

Early Warning

1.49 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.

- 1.50 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

- | | |
|------------------------------|---|
| Identifying Defects | 1.51 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. |
| Tests | 1.52 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. |
| Correction of Defects | 1.53 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. |
| | 1.54 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. |
| Uncorrected Defects | 1.55 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

- | | |
|-----------------------|---|
| Contract Price | 1.56 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.

1.57 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.

Changes in the Contract Price

1.58 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.

1.59 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.

Variations

1.60 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.

1.61 The Contractor shall provide the Project Manager with a Bids for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the Bids, 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.

- 1.62 If the Contractor's Bids 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.
- 1.63 If the Project Manager decides that the urgency of varying the work would prevent a Bids being given and considered without delaying the work, no Bids shall be given and the Variation shall be treated as a Compensation Event.
- 1.64 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.
- 1.65 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 Bids by the Contractor shall be in the form of new rates for the relevant items of work.

**Cash
Forecasts**

Flow

- 1.66 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.

**Payment
Certificates**

- 1.67 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.
- 1.68 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- 1.69 The value of work executed shall be determined by the Project Manager.
- 1.70 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.

1.71 The value of work executed shall include the valuation of Variations and Compensation Events.

1.72 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.

Payments

1.73 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within 28 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.

1.74 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.

1.75 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.

1.76 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.

Compensation Events

1.77 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.

1.78 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.

1.79 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.

1.80 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.

Tax 1.81 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.

Currencies 1.82 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.

Price Adjustment 1.83 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:

$$P_c = A_c + B_c \text{ Imc/loc}$$

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 coefficients² **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 loc is the index prevailing 28 days

² 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_c , 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. [To be transferred to the User Guide]

before Bid opening for inputs payable; both in the specific currency “c.”

1.84 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 in costs.

Retention

1.85 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.

1.86 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.

Liquidated Damages

1.87 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.

1.88 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.

Bonus

1.89 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.

Advance Payment

1.90 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.

1.91 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.

1.92 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.

Securities

1.93 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.

Dayworks

1.94 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.

1.95 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.

1.96 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

Cost of Repairs

1.97 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

- Completion** 1.98 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.
- Taking Over** 1.99 The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.
- Final Account** 1.100 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.
- Operating and Maintenance Manuals** 1.101 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates **stated**
- 1.102 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.
- Termination** 1.103 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.
- 1.104 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.

1.105 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.

1.106 Notwithstanding the above, the Employer may terminate the Contract for convenience.

1.107 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.

1.108

Fraud and Corruption 57.1 If the Employer determines that the Contractor and/or any of its personnel, or its agents, or its Subcontractors, subconsultants, 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 party³;
- (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 obligation⁴;
- (iii) “collusive practice” is an arrangement between two or more parties⁵ 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 party⁶;
- (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 Government 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

³ “Another party” refers to a public official acting in relation to the procurement process or contract execution]. In this context, “public official” includes Government staff and employees of other organizations taking or reviewing procurement decisions.

⁴ “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.

⁵ “Parties” refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.

⁶ “Party” refers to a participant in the procurement process or contract execution.

(bb) acts intended to materially impede the exercise of the Government's inspection and audit rights provided for under Sub-Clause 22.2.

- Payment upon Termination** 1.109 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 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.
- 1.110 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.
- Property** 1.111 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.
- Release from Performance** 1.112 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.
- Suspension of Contractor** 1.113 In the event that ZPPA suspends the Contractor pursuant to the Public Procurement Act of 2008:
- (a) The Employer is obligated to notify the Contractor of such suspension within 7 days of having received ZPPA'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.

6.2 Special Conditions of Contract

B. General	
1	The Employer is CARE International
2	The Intended Completion Date for the whole of the Works shall be
3	The Project Manager is <i>Director of Programs</i>
4	The Sites are located in Mwansabombwe district
5	The Start Date shall be <i>14 days after contract signing</i>
6	The Works consist of upgrading /mechanization of the 1 No. existing borehole to Small Piped Water Schemes in Mwansabombwe district
7	Sectional Completions are N/A
8	The following documents also form part of the Contract: the letter of acceptance, the general conditions, the special conditions of contract, the bid, specifications, drawings and completed schedules
9	The language of the contract is English The law that applies to the Contract is the law of the Republic of Zambia.
10	The Project manager <i>may</i> delegate any of his duties and responsibilities.
11	Schedule of other contractors: N/A

12	<p>The minimum insurance amounts and deductibles shall be:</p> <p>(a) for loss or damage to the Works, Plant and Materials: <i>ZMW 165,000.00</i></p> <p>(b) For loss or damage to Equipment: <i>ZMW82500</i></p> <p>(c) for loss or damage to property (except the Works, Plant, Materials, and Equipment) in connection with Contract <i>ZMW 825,000</i></p> <p>(d) for personal injury or death:</p> <p>(i) of the Contractor's employees: <i>ZMW165,000</i></p> <p>of other people: <i>ZMW 82,500</i></p>
13	Site Data are: <i>All field data collected reports</i>
14	The Site Possession Date(s) shall be: <i>7 days from contract commencement</i>
15	Appointing Authority for the Adjudicator: <i>Engineering Institution of Zambia</i>
16	Hourly rate and types of reimbursable expenses to be paid to the Adjudicator: <i>in accordance of the Zambian labour laws</i>
B. Time Control	
17	The Contractor shall submit for approval a Program for the Works within 7 days from the date of the Letter of Acceptance.
18	<p>The period between Program updates is 30 days.</p> <p>The amount to be withheld for late submission of an updated Program is <i>[insert amount]</i>. N/A</p>

19C. Quality Control	
19	The Defects Liability Period is: 365 days .
D. Cost Control	
20	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 not be paid interest on the late payment in the next payment.
21	The currency of the Employer's country is: Zambian Kwacha
22	The Contract " <i>is not</i> " subject to price adjustment
23	The proportion of payments retained is 10 % _____
24	The liquidated damages for the whole of the Works are 0.5% of the final Contract Price per day. The maximum amount of liquidated damages for the whole of the Works is 10 % of the final Contract Price. _____
25	The Bonus for the whole of the Works is [<i>insert percentage of final Contract Price</i>] per day. The maximum amount of Bonus for the whole of the Works is [<i>insert percentage</i>] of the final Contract Price. N/A
26	The Advance Payments shall be: 25% of the total contract sum against the bank guarantee or insurance guarantee and shall be paid to the Contractor no later than xx weeks . The advance shall be recovered within 50% progress of works.

<p>27</p>	<p>The Performance Security amount is <i>[insert amount(s) denominated in the types and proportions of the currencies in which the Contract Price is payable, or in a freely convertible currency acceptable to the Employer]</i></p> <p>(a) Bank Guarantee: <i>5% of the contract price</i></p> <p>(b) Performance Bond: <i>10% of the contract price</i></p>
<p>E. Finishing the Contract</p>	
<p>28</p>	<p>The date by which operating and maintenance manuals are required is 7days of contract completion date</p> <p>The date by which “as built” drawings are required is N/A</p>
<p>29</p>	<p>The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required is 1 % of the total contract sum in Zambia kwacha</p>
<p>30</p>	<p>The maximum number of days is: 100 days</p>
<p>31</p>	<p>The percentage to apply to the value of the work not completed, representing the Employer’s additional cost for completing the Works, is. 10%</p>
<p>32</p>	<p>INCREASE OR DECREASE:</p> <p>Unless otherwise specified, no variation in the specifications requested/ ordered will be accepted as compliance with this contract. CARE may accept services if they are otherwise in compliance with the contract, of a cost less than the services ordered. However, CARE’s acceptance of sale of services costing less than the cost specified in this contract shall not be deemed a waiver of CARE’s right to demand the constructions as per agreed specifications, or to declare the contract void with respect to the constructions by the vendor, and to purchase such goods elsewhere and to hold the vendor accountable.</p>

33	MODIFICATION: No oral understanding or agreement shall modify the terms and conditions of this contract
34	VALIDITY OF PRICE: Price quoted will remain valid for the whole duration of this contract and no changes will be entertained during this period.
35	CANCELLATION AND DEFAULT: CARE may cancel the entire or any part of this Order or exercise any other remedy provided to buyers of goods/services by law or in equity, in any of the following circumstances: (a) Seller fails to make delivery of goods or to perform the services within the time specified herein; (b) in Purchaser's good faith judgment, Seller fails to perform any of the other provisions of this Order, or by an act of commission or omission jeopardizes performance of this Order in accordance with its terms, and does not cure such failure or other act within a period of ten (10) days' notice of such default; (c) Seller is in breach of any of the terms or conditions of this Order; or (d) Seller becomes insolvent or makes an assignment for the benefit of creditors, or there is instituted by or against Seller any proceeding under any bankruptcy, reorganization, readjustment of debt or under the insolvency law of any
36	CERTIFICATION REGARDING TERRORISM Contractor certifies that it has not knowingly provided and will not knowingly provide, in violation of applicable laws, material support or resources to any individual or organization that advocates, plans, sponsors, engages in, or has engaged in an act of terrorism.

37

Fraud and Corruption

CI does not tolerate fraud and corruption, and we expect the same from everyone with whom we work. The CARE's Partner shall maintain and comply with written codes of conduct and policies and procedures that protect against any form of fraud and corruption, bribery, kickbacks, conflicts of interest, and others. Upon request, the CARE's Partner shall share with CI its applicable codes of conduct, policies and procedures. CARE's Partner shall inform CI immediately (within twenty-four hours) and in writing of any instance of actual or suspected fraud or corruption related to its work hereunder and shall respond promptly to and fully cooperate with any investigation CI or any donor, in their discretion, may require. CARE's Partner shall make all staff aware of and encourage reporting of any suspected or actual fraudulent or corrupt behavior to CI's global whistleblower hotline located at <http://www.CARE.ethicspoint.com>, which enables confidential internet reporting of fraud by clicking on the "Make a Report" tab, and provides country-specific telephone access to report fraud with translations available in over 100 languages CARE's Partner shall be financially responsible for any losses due to fraud, and shall promptly refund such amounts to CI.

6.3 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.

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.

Authorized Signature:
Name and Title of Signatory:
Name of Agency:
Attachment: Contract Agreement

Contract Agreement

THIS AGREEMENT made theday of; between *[name of the Employer]* (hereinafter “the Employer”), of the one part, and *[name 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 accept Contract] should tractor 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 Zambia 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 of², 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, ICC Publication No. 458, except that subparagraph (ii) of Sub-article 20(a) is hereby excluded.

.....
[Seal of Bank and Signature(s)]

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]* *[amount in words]* 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, ICC Publication No. 458.

.....
[Seal of Bank and Signature]



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."

POWER OF ATTORNEY

Date:
Tender N^o: _____

To:

REF: TENDER NO:.....:
(TENDER TITLE:)

This is to confirm that the above tender/ bid has been signed by (Full name and title) in the capacity of (Title and the organization's name) to present, negotiate, sign and bind in all matters governing the above tender between the Ministry of Water Development and Sanitation and (organization's name).

Find below the sample signature for the authorized signature

[signature, name and title for and on behalf of the Law Firm]

[sample signature, name and title of the person given power of attorney to sign]

Note: This letter for Power of Attorney should be on the letterhead of the registered Legal Practitioner and should be signed by a person competent and having the authority of the firms Partner. It should be included by the Bidder in its bid.

BID SECURING DECLARATION

[The Bidder shall fill in this form in accordance with the instructions indicated.]

Date: [insert date (as day, month and year) of bid submission]

Tender No.: [insert number of bidding process]

Alternative No.: [insert identification No. if this is a bid for an alternative]

To:

We, the undersigned, declare that:

- 1 We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration.
- 2 We accept that we will automatically be suspended/disqualified from being eligible for bidding in any tender if we are in breach of our obligation(s) under the bid conditions, because we:
 - (a) have withdrawn our bid during the period of bids validity specifies by us in the Bid Data Sheet; or
 - (b) having been notified of the acceptance of our bid by the Procuring Entity 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
- 3 We understand that this Bid Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of;
 - (i) our receipt of a copy of your notification of the name of the successful bidder; or
 - (ii) Thirty (30) days after the expiration of the bid.

- 4 We understand that if we are a Joint Venture, the Bid Securing Declaration must be in the name of the Joint Venture that submits the bid. If the Joint Venture has not been legally constituted at the time of bidding, the Bid Securing Declaration shall be in the names of all future partners as named in the letter of intent.

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]

Date: on Day of [Insert date of signing]

Witnessed By [insert name of witness] in capacity of [insert designation of witness]

Date: on Day [insert date of signing]

Note: This Bid Securing Declaration Form should be on the letterhead of the Bidder and should be signed by a person competent and having the power of attorney to bind the Bidder. It should be included by the Bidder in its bid. SHOULD HAVE A COMPANY/CORPORATE SEAL.

