**ATTACHMENT E: PRICED BILL OF QUANTITIES**

1. **Preamble**

Bidders must price each item in the Bill of Quantities separately and transfer the various totals in the summary.

The Bill of Quantities must be read with all the other Subcontract documents and the Subcontractor shall be deemed to have thoroughly acquainted himself with the detailed descriptions of the works to be done and the way in which they are to be carried out. All the works must be executed to the satisfaction of DAI.

1. **Pricing**
2. The prices and rates inserted in the bill of quantities are to be the full inclusive values of the works described under the items, including all costs and expenses which may be required in and for the construction of the works described together with any temporary works and installations which may be necessary and all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based. It will be assumed that establishment charges, profit and allowances for all obligations are spread evenly over all the unit rates.
3. The cost of contract shall also include the cost for the adherence of Environmental Mitigation and Monitoring Plan (EMMP) control measures as provided in the EMMP form by DAI.
4. It is mandatory for the awarded Subcontractor to develop and adhere to a Quality Assurance and Quality Control (QA/QC) plan and a Health and Safety Plan to the satisfaction of the Employer. The contract price shall include the cost for these activities.
5. Rates and prices must be entered against each item in the Bill of Quantities. The rates will cover all tax, duty, permits, overhead, profit, insurance, or performance securities, or other liabilities or expenses which are not stated separately in the Bill of Quantities and the tender.
6. The quantities set forth against the items in the Bill of Quantities are an estimate of the quantity of each kind of the work likely to be carried out under the contract and are given to provide a common basis for bids. There is no guarantee to the Subcontractor that it will be required to carry out the quantities of work indicated under any one particular item in the bill of quantities or that the quantities will not differ in magnitude from those stated. The basis of payment will be the actual quantities of work carried out, as measured by the Subcontractor and verified by the Engineer and valued at the rates and prices bid in the priced Bill of Quantities, as per the Conditions of Contract for masurement and payment.
7. Except where the technical specifications or the Bill of Quantities specifically and expressly state otherwise, only permanent works are to be measured. Works will be measured net to the dimensions shown on the drawings, except where described or prescribed elsewhere in the contract.
8. In adjusting extras or variations on the contract, works will be measured on the same basis as that on which the quantities were prepared. All works not specifically mentioned in the bill of quantities will be taken as included in the prices of various items.
9. Where, in the opinion of the Engineer, extra works cannot be properly measured or valued, the Subcontractor may, if so directed by the Engineer, carry out the work at rates as agreed between the Engineer and the Subcontractor, subject to endorsement by the Employer.
10. No allowance will be made for loss of materials or volume thereof during transport or compaction.
11. **Units of Measurement**

The units of measurement used are those of the International System of Units (SI). No other units may be used for measurements, pricing, detail drawings etc. (Any units not mentioned in the technical documentation must also be expressed in terms of the SI.)

1. **Completing The Bill of Quantities**

In the Bill of Quantities, rates and prices will be entered in the appropriate columns in US$. Errors will be corrected as follows:

* 1. where there is a discrepancy between amounts in figures and in words, the amount in words will prevail; and
  2. where there is a discrepancy between the unit rate and the total amount derived from the multiplication of the unit price and the quantity, the unit rate as quoted will prevail.
  3. **Coverage of Individual Cost Items**

### Excavation

All excavation under this contract is unclassified. It is the Subcontractor’s responsibility to examine the site before providing rates in the contract

Prices for items for excavation shall include clearing of surface, breaking, uploading, shoring and protecting sides of excavation, cleaning and trimming to level, loading and unloading, disposal or intermediate storage of excavated material, any de-watering.

### Fill or Refill of Soil

Prices for items for filling, refilling of soil shall include provision of material, loading and unloading, distributing and compacting to 90% Proctor density, trimming, shaping and cleaning of final surface.

### Reinforced Concrete

Prices for items for reinforced concrete shall include provision of concrete on site, additives (if any), placing, curing; supply, provision reinforced steel, forming and placement of reinforcement steel (St 500 S); supply, erection, dismantling of formwork; supply of joint material, construction of joints.

### Mass Concrete

Prices for items for mass concrete shall include provision of concrete on site, additives (if any), placing, curing; supply, supply, erection, dismantling of formwork; supply of joint material, construction of joints. Prices shall also include anchors and other reinforced steel to connect adjoining reinforced concrete parts.

### Steel works

Prices for items of steel works shall include structural design, provision of steel and construction of structure, surface prep, cleaning and anticorrosive treatment of surfaces, mounting, provision and installation of all necessary ancilliaries.

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| **BILL OF QUANTITIES** | | | |
| **SUMMARY SHEET** | | | |
| **Subcontract Name : THE DUBRE IRRIGATION SYSTEM REHABILITATION AND IMPROVEMENTS PROJECT** | | | |
| **Subcontact No. : TBD** | |  |  |
| **No.** | **General Summary** | **Pages** | **Amount** |
| **USD$** |
| 1 | Bill NO. 01 : Preliminaries |  | $ - |
| 2 | Bill NO. 02 : Rehabilitiation of Exisiting System |  | $ - |
| 3 | Bill NO. 03 : Construction of New System |  | $ - |
| **Total of Bills** | | **A** | $ - |
| **Carry this Forward to the Form of Bid** | | **B** | $ - |