United Nations Human Settlements Programme (UN-HABITAT) UNESCO Regional Office – Cite Sportive Avenue – Jnah – Beirut Tel: +961 1 850013 (extension 111) Fax: +961 1 824854 Email: unhabitat.lebanon@gmail.com – www.unhabitat.org

REHABILITATION of LEBAA & KFARJARRA WASTER WATER LIFTING STATIONS

GENERAL NOTES

A. Items in the BOQ are carefully studied and requested by the designer, but it is the Contractor's responsibility to check all these items again during the tender phase.

GENERAL NOTES for CIVIL WORKS

- A. Main Gate's should be rehabilitated as follows:
 - Fix the hinges and joints or substitute them in case of full damage.
 - Re-level the Gate.
 - Grubb the Gate, Paint with one layer of Under Coat (Base Paint), Paint two layers of Metal Paint to be off- white and agreed with UN Habitat engineers.
- B. Ditto, for interior and exterior paints of the rooms.
- C. The Plastic Tank should be three layers wall with all its accessories, floater, valve and all proper pipes related to it and from it to the sink.
- D. Sink to be 60x60 Local Porcelain, with all its accessories tap, flexible and drainages.
- E. The internal door, change the hinges, Grubb and paint under coat and 2 layers of agreed off white paint.
- F. Fire Extinguisher to be 5 kg.
- G. Industrial Ventilator to be 40x40cm.
- H. Overflow pipe from Well should be PVC- 6.2mm Thick.
- I. Concrete Floor to be 10cm- B25 or f'c= 25Mpa. Reinforcement to be one layer of Ø6mm in both directions.
- J. All Manhole covers to be supplied and applied should be Hinged Ductile Iron- Class A (40Tons).
- K. Cleaning all sewer lines and debris removal should be by jetting and manual operations.
- L. Manhole Cover Slabs to be Reinforced Concrete Slabs with 20cm thickness f'c=25Mpa and Main Reinforcement to be not less than T16@15 tied by T8@15.

SUBMITTALS

- A. The Contractor shall submit sufficient information to UN-Habitat, in order to verify compliance with the specifications.
- B. Quality Assurance QA: Method Statements
 - 1. The contractor shall provide method statements at least for following activities:
 - a. Pipe/ Manhole Installation.
 - **b.** Painting.
 - c. Cleaning and Jetting.
 - d. Winding (لف موتور).
 - e. All mechanical activities.
 - **f.** Pipe Testing.



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QUALITY CONTROL

- A. Prior TO DISPATCH FROM THE FACTORY, THE Contractor shall notify UN Habitat engineer, in sufficient time to allow them to inspect and check test on all products.
 - 1. All notifications shall be made by written "Inspection Requests".
 - a. A copy should be scanned and mailed to UN-Habitat engineer; it should arrive before the day of inspection.
- B. Final Inspection:

Any product found to be fabricated from unapproved materials or incorrectly fabricated, incorrectly installed, poorly fitted or damaged, shall be rejected and removed from the works.

- 1. No site repairs will be allowed, unless authorized by UN-Habitat engineer.
- 2. The Contractor shall bear all costs for replacing unacceptable work.

DELIVERY, STORAGE AND HANDLING

- A. Delivery, storage and handling shall be according to the manufacturer's recommendations, along with the following provisions:
 - 1. Transportations, storage and handling shall at all times be performed in a manner to avoid product damage.
 - 2. Only nylon slings shall be used for lifting products. Steel chains, clamps or cables shall not be allowed lifting purposes.
 - 3. If stored outside, cover products to prevent weather degradation.
 - 4. Any products found to be incorrectly fabricated shall be marked and set aside.
 - 5. Any products damaged during delivery, storage or installation shall be marked by the Contractor and set aside.

EXECUTION

- A. Apply and Supply all Civil Works mentioned in the Bill of Quantities in the Following Lifting Stations:
- Lebaa L1 & L2.
- Kfarjarra L3 & L5.
 - B. Supply and Apply all Mechanical and Electrical Works mentioned in the Bill of Quantities in the Following Lifting Stations:
- Lebaa L1 & L2.
- Kfarjarra L3 & L5.