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United Nations Development Programme  
Programme of Assistance to the Palestinian People  
برنامج الأمم المتحدة الإنمائي / برنامج مساعدة الشعب الفلسطيني

**Debris Management Project  
PAL 10-91916**

**Lot # 11  
Rubble Removal from Middle Governorate**

**Bill of Quantity (BOQ)**

# Bill of Quantity (BOQ)

## **PREAMBLE TO BILL OF QUANTITY (BOQ)**

### **1. GENERAL**

The nature of this contract is measured unit price contract and the Bill of Quantity (BOQ) shall reflect this fact.

BOQ shall be read and construed in conjunction with other Contract Documents.

General directions and description of work and material given in the Technical Specification are not necessarily repeated in the Bill of Quantities. The Technical Specification forms an integral part of the Bill of Quantities.

The Tenderer is obliged to check the number of the pages of the Bill of Quantity and should any be found missing or duplicated or the figures or writing indistinct, the Tenderer must notify the Employer/Engineer at once and have the matter rectified before the Tender is submitted. No liability whatsoever will be accepted in respect of any claim for errors in the Tenderer's offer resulting from failure to comply with the foregoing.

The Tenderer is deemed to have visited the site/s and fully acquainted himself as to the location of each of the items and works to be carried out and to all conditions which may affect the performance of the works, including but not limited to:

- ◆ Access to each of the roads where solid waste transfer process will be carried out, and Access for the dump site.
- ◆ Restrictions applicable to working in GAZA Strip area.
- ◆ All safety regulations and employer site safety procedures.
- ◆ All Palestinian regulations.

The Tenderer is also deemed to have surveyed the actual condition of the site and buildings and made his own assessment of the type and extent of the works prior to submitting his offer.

### **2. QUANTITIES**

Even though that practical care was exercised in preparing the BOQ, but all quantities given herein shall be deemed to be estimated quantities of the work to be done but they are not to be taken as actual and correct quantities of the work to be executed and

they are not to absolve the contractor of his obligations under the Contract. They are not to be taken as guarantee that the actual quantities increase or decrease, and any claim whatsoever submitted for cost or extra expenses incurred from such increase or decrease will not be accepted by Employer/Engineer except where else stipulated in the Contract.

### **3. MATERIALS**

All materials used are to be of the best new available and subject to the Employer/Engineer approval, and of durable nature, guaranteed, not liable to any base exchange and manufactured according to applicable **BS, ASTM or DIN Standards**. Execution also is subject to approval of Employer/Engineer and shall be the best available common practice in engineering codes at the time of execution.

Items that contain materials or products of special make with names of manufacturers are to be taken as samples of what will be required. Subject to the Employer/Engineer approval, the Contractor may, at his discretion, offer similar products of other make if the equivalent quality of the specified materials is guaranteed. In this case, the Contractor shall submit a description and/or drawings showing all technical conditions, characteristics, make, type and address of Manufacturer, etc., of the materials offered as alternatives.

### **4. PRICES AND CURRENCY**

The Unit Prices entered against the various items in the following Bill of Quantities include all operations for execution, completion and maintenance of the various items of the works finished completely in every respect till the final acceptance as specified or described in the Tender Documents, with or without modifications, either by way of additions or deductions, or alterations as may be offered in writing during the progress of the works, and include, without being limited to, all matters and things particularly referred to in the Tender Documents.

The Unit Price shall cover all costs of every kind whatsoever including, without being limited to, all charges for additional site installations, relocation, supervision, labor, transportation and supply of materials; the provision, maintenance, use and efficient repair of all plant, equipment and appliance of every kind, the construction and maintenance of all temporary works, the performance of all services and the fulfillment of all obligations and responsibilities herein defined.

The Tenderer shall be deemed to have fully considered all the conditions, obligations, and requirements of the Tender Documents before entering the respective unit price against the various items of the Bill of Quantities.

The Unit Prices given hereunder the BOQ shall also include erection, installation, fixing, and re-fixing of all elements. These prices shall also include taxes, visa for labor, gate passes, accommodations for the Contractor's staff and labors, all required insurance and work permits, guarantees, bonds, traffic plan requirements, safety procedures, etc. and all requirements necessary to have the work maintained until its final handing over.

The Unit Prices given hereunder in the Bill of Quantity for this work shall also include overheads, risks, profit etc. and all other financial matters to have all these civil works completed.

The works, materials or activities listed in the following shall always be considered as supportive works to be included in the Unit Prices bid for any item in the Bill of Quantities:

- Any measurement for execution and payment of the works, including the provision of measuring instruments, gauges, setting out marks, marking paint and relevant tools, labor, etc., the maintenance and preservation of gauges and setting-out marks during the execution of the works.
- Provision of small tackle tools or any other equipment required for the execution of the works.
- Supply of consumable materials for the Contractor's equipment.
- Removal of all contamination (refuse, debris, building rubbish and the like) arising from or in connection with the Contractor's work.
- Protection of the executed works and of the items made available for execution of the works from damage, fire, inclement weather, vandalism and theft etc., to the time of final acceptance.
- Transportation of all materials and structural components from the storage places on site to the points of use and return transportation, if required.
- Submitting and transporting any samples required.
- Carrying out tests on materials and works, etc., that is required by the Engineer.
- Fuel and lubricants for operation of Contractor's equipment.
- All safety precautions and measures for safeguarding labor as well as securing surrounding areas.
- Lighting of the work site.
- Maintenance or repair damaged infrastructure resulted by contractor's activities

## **5. RIGHTS OF EMPLOYER**

The following rights are reserved to the Employer:

- To omit individual items mentioned in the Schedule of Prices if not required in the opinion of the Employer and/or to replace them should it be more advantageous to execute them in another way.
- To order execution of alternative or provisional items as if they were main items.
- To order execution of additional works as well as alternatives of works, always in conformity with the conditions outlined in the Contract.

Any order and/or delivery of material or equipment by the Contractor for performance of the works may only be based on instructions and/or approved execution drawings by the Employer/Engineer.

All equipment and materials for installation and finishing works to be incorporated in this contract shall prior to ordering and/or delivery by the Contractor, be approved by the Employer/Engineer both in respect of quality and type as well as of quantity.

## **6. SITE ACCESS AND STORAGE**

The Tenderer shall visit all sites and ascertain the location of required access onto these sites and the location of allowance for complying with the requirements and for the reinstatement to original condition of all roads and areas used or disturbed by the Contractor to the satisfaction of the supervision Engineer.

## **7. SITE INSTALLATION**

All costs of labor, works, provisions, fuel, materials and equipment for Site Installations required by the Contractor and stipulated in the Tender Documents shall be included in the various unit prices of the Bill of Quantity. No extra payment will be allowed by the Employer for any of these activities.

## **9. DURATION**

The total duration of the contract is **Three (3) calendar months** including weekends, holidays and official holidays.

## **10. TRANSFER OF MATERIALS**

All collected and sorted materials will be transferred to the agreed sites as follows:

- Clean sorted concrete rubble should be transferred to crushing site in Rafah (Tal Al Sultan area) for Khanyounis and Rafah packages and to Johr Al Dik landfill for North, Middle and Gaza packages.
- Garbage should be transferred to Johr Al Dik landfill for Gaza, Middle, and North and to Al Fukhari landfill for Rafah and Khanyounis governorates. Any fees for disposal should be paid by the contractor
- Non-concrete construction materials such as steel, wood, aluminum, etc should be transferred to the warehouse of Ministry of Housing and Public Works in Al Mughraga area for all packages
- Sand and clay should be transferred to Johr Al Dik landfill for Gaza, Middle and North and to Al Fukhari landfill for Khanyounis and Rafah
- Foundation of destroyed houses should be transferred to the fisherman port in Gaza for all packages

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| Item No. | Description   | Unit | Qty. | Unit Price (US\$) | Total (US\$) |
|----------|---|------|------|-------------------|--------------|
|          | <p><u>Notes:</u></p> <ul style="list-style-type: none"> <li>The contractor should satisfy all safety measures for both: site and labors according to contract's documents. Insurance certificates should include risks from UXOs</li> <li>All quantities are estimated according to the site measurements at the date of contract advertisement. In case of any changes in quantities (increase or decrease), same rates quoted will be utilized.</li> <li>The unit price includes supply the sites with electrical source on daily basis during all project duration. Payments for electrical fees and/or generator's fuel and oil are the responsibility of the contractor.</li> <li>All works should be done according to drawings, specifications, conditions and directed instructions by the UNDP Engineer or his representative.</li> <li>Excavation of foundations is included in unit price.</li> <li>Back-filling for excavated areas are included in unit price and should be in layers. If excavated materials after sorting process are suitable for backfilling, it should be used again. If not, then suitable imported Clean Sand should be used for back-filling in layers (25cm max. each &amp; compaction test 98%). Prices shall include backfilling underground floors. Prices shall include supply, watering, compacting, transporting, testing and anywhere else, needed, all according to drawings, specifications, conditions and directed instructions by the Engineer or his representative.</li> <li>In all items, asbestos removal should be carried out according to methodology included in contract document and should be stored according to the instruction of the engineer in special place.</li> <li>In all items for sorting and transporting, cutting steel bars is required from concrete elements. Concrete elements including steel should not</li> </ul> |      |      |                   |              |

| Item No. | Description   | Unit       | Qty.         | Unit Price (US\$) | Total (US\$) |
|----------|---|------------|--------------|-------------------|--------------|
|          | <p><i>exceed dimension of 50x50x50 cm</i></p> <ul style="list-style-type: none"> <li><i>Steel sheets, sheds and pipes should not exceed 1 meter length during transportation of these materials to the dump site.</i></li> <li><i>UXOs removal is included in unit price. Special handling and special transportation and disposal of such material should be in close coordination with UN-MAS and according to UNDP instructions.</i></li> <li><i>For high-rise buildings' demolition, special machines and/or cranes should be used beside strong safety measures. No workers are allowed to ascend these buildings.</i></li> <li><i>The contractor is responsible for making a list of houses and places for demolition and rubble removal prior starting sorting and removal processes.</i></li> <li><i>The unit price includes covering of trucks with sealed cover.</i></li> <li><i>The contractor has to submit the weight receipt of each truck from the dump area. Weighting costs is included in unit price</i></li> <li><i>Any fees or costs at the dump site (for disposal of non-concrete elements) are included in the unit price</i></li> <li><i>Strong safety measures for site and labors are required. Safety plan has to be provided before the start of activities.</i></li> <li><i>Unit price includes transferring a part of large concrete elements to the fishermen sea port in Gaza</i></li> <li><i>The unit price includes replacing, repairing, and reinstatements of any infrastructure networks affected and/or damaged by the contractor works in the site.</i></li> <li><i>In all items where demolition of damaged is mentioned , this refers to totally and partially damaged structures</i></li> </ul> |            |              |                   |              |
| 1        | <p>Demolishing and sorting of non-concrete materials such as wood, aluminum, steel, isolating materials, ceramic, asphalt, terrazzo, asbestos, UXOs, garbage, and others (excluding sand and clay and any soil resulting from the sieving/sorting process) from existing damaged structures and rubble stockpiles. Sorting of these materials should be done according to the specifications and engineer's instruction and should be done for each material separately. Then collecting these materials and transporting each of them to the agreed dump sites. The price includes fees for municipal dump site where the garbage will be disposed.</p>  | <b>Ton</b> | <b>3,000</b> |                   |              |



| Item No. | Description   | Unit       | Qty.          | Unit Price (US\$) | Total (US\$) |
|----------|---|------------|---------------|-------------------|--------------|
| 2        | Transport and spread sand and clay generated from concrete sieving ,sites cleaning, rubble sorting, foundation removal, demolition of buildings or any other source to the agreed disposal sites or any place determined by the engineer  | <b>Ton</b> | <b>5,000</b>  |                   |              |
| 3        | Demolishing, sorting and transporting of concrete materials from existing damaged structures, rubble stockpiles, water tanks flats, floors, partially damaged structures etc. The work includes excavation for existing foundations, cutting of steel bars, cutting of concrete elements into small parts (maximum 50x50x50 cm), demolishing of damaged buildings and walls, loading of concrete rubble, transporting to the dump site and up-loading concrete rubble.<br>The work includes also backfilling of areas excavated for foundation's removal with approved materials according to the specifications and engineer's instructions.<br>The work includes sieving of concrete pieces so no sand or clay or any other non-concrete elements are included  | <b>ton</b> | <b>10,000</b> |                   |              |
| 4        | Demolishing, sorting and transporting of concrete materials from existing damaged high-rise buildings (more than 10 meters high from the top of highest ceiling of the building down to the first ground floor/all elements above highest ceiling will not be considered in determining high-rise building height such as columns, stairs, etc). The work includes excavation for existing foundations, cutting of steel bars, cutting of concrete elements into small parts (maximum 50x50x50 cm), demolishing of damaged buildings and walls, loading of concrete rubble, transporting to the dump site, up-loading concrete rubble, and using of special machines and equipment.<br><br>The work includes also backfilling of areas excavated for foundation's removal with approved materials according to the specifications and engineer's instructions.<br><br>The work includes sieving of concrete pieces so no sand or clay or any other non-concrete elements are included<br><br>This item includes also any elevated water reservoirs such as water reservoir in Al Masry street in Beir Hanoun as well as housing towers such as Italian tower in Gaza are included in this item. | <b>ton</b> | <b>5,000</b>  |                   |              |

| Item No. | Description   | Unit | Qty. | Unit Price (US\$) | Total (US\$) |
|----------|---|------|------|-------------------|--------------|
| 5        | <b><u>Provisional Item:</u></b><br>Stock piling of non-crushed concrete rubble inside dumping and crushing site. The works include preparation area for stockpiling, preparation of ramps and access roads for stockpiling and to streamline the traffic flow of the trucks. Stockpile high should be between 6-8 meters. | hour | 100  |                   |              |

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Summary:

| Item | Description               | Total (US\$) |
|------|---------------------------|--------------|
| 1.   | Total of Item 1           |              |
| 2.   | Total of Item 2           |              |
| 3.   | Total of Item 3           |              |
| 4.   | Total of Item 4           |              |
| 5.   | Total of Item 5           |              |
|      | <b>Total (US\$)</b>       |              |
|      | <b>Vat (0%)</b>           | <b>0</b>     |
|      | <b>Grand Total (US\$)</b> |              |

Grand Total (in letters):-----

Contractor's Name:-----

Signature and Stamp:-----

Date:-----