



Invitation to Bid

ITB - 054/14

REHABILITATION OF AL JAWADAIN PRIMARY SCHOOL, AL DAIR, IN THE MAJNOON AREA OF BASRAH, IRAQ

Volume II

Section 3

Schedule of Requirements and Technical Specifications

Part 1 - Scope of Works

Part 2 - General Requirements

Part 3 - Technical Specifications

Part 4 - Drawings

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1 PART 1: - SCOPE OF WORKS

1.1 BACKGROUND

Shell Iraq Petroleum Development B.V. (Shell) has been working with United Nations Development Programme (UNDP) Iraq on a multi-faceted programme in Basrah Governorate. The motivation for Shell's initial request to UNDP was to implement (1) Hiring of local (skilled) labourers and service providers as a good business practice and a longer term cost-reduction measure, and (2) Local area development activities and local community incorporation to reduce social unrest, a major cause of past disruptions of oil field production.

The Oil & Gas Industry is of critical importance in Basra Governorate, especially after the Government of Iraq granted work permits to oil companies in order to invest in this Governorate. As a result, approximately 5,000-7,000 job opportunities in skills required by the Oil & Gas Industry – including welding, rigging, scaffolding, electrical works, civil works etc., – are expected to be created in the next five years. Initial scoping has seen a high demand for many of these positions now, and this demand is expected to rise sharply. International Oil Companies (IOCs) operating in Basrah and throughout Iraq is strongly encouraged to maximize their hiring of Iraqi employees and use of goods and services supplied locally. However, this has proven difficult as economic difficulties and wars experienced by Iraq over the previous 30 years have depleted the nation's supply of skilled labour and its small business base. If the local supply of qualified workers remains insufficient for IOC production/construction needs, foreign contractors and labourers will have to be imported, leading to significantly higher operating costs for IOCs, and jobs given to internationals, thus prolonging local unemployment and leading to possible future discontent and social unrest.

Under the **Local Area Development Programme (LADP)** implemented from 2007-2010, seven UN Agencies have been working in districts in Northern, Central and Southern Iraq on local area development planning. The LADP programme was delivered through national Area Co-ordinators (from ILO/UNOPs working in Sulymaniyah; UN-Habitat working in Babylon and UNDP in the Marshlands area (Basrah, Missan and Thi-Qar) who led a wide range of representatives from the local population through a participatory planning process to determine local development priorities across the sectors from water and sanitation to education, health and municipal services. This project is expanding this LADP approach to over twenty villages in Al Nashwa Sub-District in the Majnoon Area, aiming at improving access for all to quality essential service delivery, and livelihood revival and diversification. This stands to benefit Shell's reputation as well as to support local vulnerable populations.

1.2 PROJECT AREA

The Al Jawadain Primary School is located, in the Al Dair Sub-District, in the Majnoon Area of Basrah, Iraq.

1.3 OBJECTIONS AND ENVISGED OUTCOMES

The LADP project's primary envisaged outcome is to assist local government and village leaders to develop a process whereby local communities through their chosen representatives together with civil society and the private sector are able to articulate their local development priorities. Communities will monitor the delivery of services and participate in the stewardship of local assets and resources thereby contributing to increased transparency and accountability. This process



ensures representation of interest groups (i.e. farmers and business men) and inclusion of the vulnerable and underserved groups. The focus of assistance will be to build awareness and participation in local governance. A network of representatives within the communities will be identified to form a platform to raise community concerns and engage in dialogue with all of the development partners, including the private sector.

Another envisaged outcome is to implement certain projects that are identified by community members as critically needed. Therefore, the main objective of this part of UNDP's approach in Basrah is to rehabilitate and to add new classrooms, at the Al Jawadain Primary School, Al Dair in the Majnoon Area of Basrah, Iraq.

1.4 WORKS TO BE PROVIDED BY THE CONTRACTOR

1.4.1 Nature of Contract

This contract includes supply, delivery, installation, testing and commissioning of civil, electrical, mechanical, etc., materials and equipment and appropriate training for the "Works" detailed in this Scope of Works, the attached Technical Specifications and Price Schedule/Bill of Quantities.

1.4.2 Description of Works

The Works include the construction of additional classrooms, ablution facilities, rehabilitation works at the Al Jawadain Primary School, Al Dair in the Majnoon Area of Basrah, Iraq. However not limited to the following:

- Excavation, leveling and backfilling works;
- Various concrete works and steel reinforcement works;
- Brick works;
- Plastering and painting works;
- Flooring works;
- Roof isolation works;
- Supply and install doors and windows;
- Supply and install ACs units;
- Supply and install electrical works such as light fittings, socket outlets and electrical wiring; distribution boards; fans; electrical cables... etc.
- Supply and install sanitary fixtures;
- Supply and install plastic water tank;
- Supply and install rain water drainage pipes;
- Supply and install electrical pumps;
- General rehabilitation works for the existing classrooms and WCs;
- Supply and install concrete stair case with painting;
- Supply and install furniture;
- Landscaping works;
- Supply and install water reverse osmosis units.

The works including supply, install all the required materials and equipment, testing and commissioning of all related equipment and as detailed in the Price Schedule/Bills of Quantities and all other ancillary work required to complete the entire scope of works.



The Works includes provision of required manpower, machinery and materials for the works as described hereunder and under the Technical Specifications, Price Schedule/Bills of Quantities and Drawings.

1.4.3 Transportation of Materials

Transportation of materials shall be contractor's responsibility.

1.4.4 Test and Commissioning

The scope of work includes testing and commissioning of all the equipment installed by the contractor.

1.5 CONTRACT DURATION

All works shall be completed within twenty (20) weeks of contract award.

1.6 MATERIALS TO BE PROVIDED

1.6.1 Materials to be provided by the Contractor

The contractor shall be required to provide all equipment and materials as listed under the Bills of Quantities and Specifications" in accordance with the specifications provided.

1.6.2 Materials to be Provided by UNDP

No materials will be supplied by UNDP

1.7 FACILITIES TO BE PROVIDED

1.7.1 Facilities Provided by UNDP

No site facilities shall be provided by UNDP.

1.7.2 Facilities Provided by the Contractor

All required facilities for proper development of all phases of the project shall be its own responsibility. Unless otherwise explicitly called upon, any facilities shall be deemed included and/or surcharged in/to the contractor's price.

1.8 WORKING TIME

Al Jawadain School is fully operational with full time classes during the week accordingly, the Work's shall be carried out not to disturb class room activities. The contractor, through UNDP shall make arrangements with the Head Master of the school to continue with the Work's after classes during the week and work over weekends and public holidays.

It is envisaged that the contractor would be able to do site establishment and create a Safety Working Area during the upcoming winter school holidays.



1.9 SECURITY AT WORK

It is the contractor's responsibility to secure the Works against vandalism and interference during construction and shall provide supervisory security whilst working in the existing class rooms and teachers offices.

1.10 GENERAL RESPONSIBILITIES / REQUIREMENTS

The Services shall also include some duties normally performed by UNDP field staff, which includes the establishment and maintenance of contacts with counterparts and other stakeholders. These shall include, yet not be limited to, liaising and maintaining strong working relations with all stakeholders and obtain all required letters, approvals, documentation...etc.

1.10.1 Reporting

Given the remote management nature of the project and the fact that UNDP cannot maintain prolonged and/or frequent on-the-ground presence, one of UNDP's management tools is through comprehensive progress reports supported by photographs, videos and similar materials from its implementation partners. The same also applies for illustrating project impacts.

1.10.2 Contents of Report

During implementation the contractor shall provide UNDP with weekly progress reports including yet not limited to:

- Meetings held with counterparts, contractorsetc.
- Progress reporting, delays....etc
- Staff employed by contractor, sub-contractors, counterparts.
- Financial status, predicted cash flow, expected variations.
- Technical Issues.

1.10.3 Photography & Video Material

The contractor shall provide adequate photographs and video materials as an integral part of any submitted report with the purpose of illustrating progress, impact, elements requiring particular attention and so forth. Photographs and videos shall also be captured and submitted as frequent as requested by UNDP.

While in certain instances the photographs/videos shall be required to portray the status of technical elements, which necessitates that these be of technical nature portraying an engineering view of the photographed element (i.e. defective bearing, leaking pipeline, broken cable, defective concrete, etc), in other instances the photographs/videos are rather required for general illustrative purposes and should convey a general inclusive overview for non-engineering purposes. It should be noted that these should have an artistic essence to them.

The contractor is alerted to the particular requirements for non-engineering purposes photography/videos, which are required to achieve several purposes including yet not limited to: Conveying the overall extent and magnitude of the intervention.

- Conveying the overall intervention nature.
- Conveying a broad overview of the overall intervention.
- Conveying the pre-intervention conditions (i.e. impact of not having the intervention in place such as streets flooded with wastewater, child without access to water and the like).



Conveying the post-intervention conditions (i.e. impact of having the intervention in place such as dry and clean streets, child with access to water and the like), which are generally used to assess the intervention impact.

Although many professionals have adequate capacity to capture photographs and videos, the contractor shall ensure a professional photographer/cameraman is appointed for this particular purpose that has adequate capacity to capture technical and non-technical photographs with the required artistic essence.

Photographs and videos must be accompanied by basic caption information linked to each image file name identifying the date, location, subject and (if relevant) UNDP activity. The name and contact of the staff photographer should also be provided for follow-up queries. The contractors cost shall be deemed included and/or surcharged in/to the rates for each activity.

1.10.4 Close Out Report

Upon completion of all activities of the project the contractor shall submit a collective Close-Out Report which reflects all aspects encountered during implementation inclusive of all original documentation, photographs...etc. The report shall first be submitted in a draft form to UNDP. The contractor shall do a report presentation during which UNDP shall present and discuss their comments and remarks.

The report shall then be presented in its final form following incorporation of all UNDP comments and remarks.

The contractor shall, at least, submit two (2) hard copies to UNDP (1) soft copy to UNDP.

1.10.5 Translation of Documents

The contractor shall not convey any Arabic language correspondences to UNDP all official correspondences with the counterparts and other relevant material shall be translated to the English language by a certified translator. The contractor shall always submit the Arabic version together with the translated version including due stamping and sealing of the translated version with sufficient proof that the utilized translator is certified the Government.

The contractors cost shall be deemed included and/or surcharged in/to the rates for each activity.

1.10.6 Project Specific Support Services

The support services may include fees for payments settled by the contractor on behalf of UNDP for the ongoing activities under the contract. Such as, but not limited to, payments for placing advertisements, printing services, renting site equipment, technical team resources support and so forth. The payment shall be settled based on clear instructions from UNDP after at least three quotations are collected and submitted by the contractor to UNDP and the lowest responsive quoted price is approved by UNDP.

UNDP, upon the requirement, shall instruct the contractor to perform the above mentioned services by collecting a minimum of three simple quotations for each type of services.



1.11 DRAWINGS

The attached drawings are to be read together with the Scope of Works, Technical Specifications and the Price Schedule/Bills of Quantities.

PART END

2 PART 2: - GENERAL REQUIREMENTS

2.1 SITE OFFICES

Within one (1) week of the “Commencement Date”, the contractor shall establish a temporary site office which shall include one (1) office for UNDP's engineer.

2.2 SERVICES

The Contractor shall be responsible for the provision of services such as electricity, water, sewerage, telecommunications and roads and other facilities required to execute works.

2.3 SAMPLES, TESTING & INSPECTION

Cost of all samples and testing shall be borne by the Contractor and deemed to be included in the Contract price.

2.4 HEALTH, SAFETY & ENVIROMENTAL (HS&E) REQUIREMENTS

2.4.1 General

The Contractor throughout the execution and completion of the works shall fully comply with international recognized safety regulations specified under the Technical Specifications i.e.:

- Take care for the safety of all persons engaged at site works,
- Use reasonable efforts to keep the site and works clear of unnecessary obstruction so as to avoid danger to these persons,
- Provide and maintain electrical materials, diesel generators, guarding and watching of the works until completion and taking over of the works,
- Take all reasonable steps to protect the environment on and off site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other cause arising as a consequence of his method of operation.
- Provide to all site workers safety clothes, equipment, materials, etc., to perform ongoing activity such as portable earths, safety helmets, working and insulated gloves and safety shoes.

2.4.2 Public and Children

The contractor throughout the execution shall provide a full time HS&E officer who will advise and guide the general public, teachers and children about safety during construction activities.

The HS&E officer shall liaise with the Head Master and teachers to conduct safety talks on a daily basis with the children of the school. Safety signs shall be displayed at all times and safety pamphlets shall be distributed on a weekly basis to the children.



2.5 SITE SURVEY

Bidders shall be deemed to have inspected and examined the site and its surroundings, and to have satisfied themselves with site conditions before submitting the Bid.

2.6 SITE PREPARATION

The Contractor shall be responsible for all site preparation works.

2.7 MEASUREMENT OF QUANTITIES

UNDP reserves right to increase, decrease quantities or cancel any items in the BoQ as per actual requirements.

Bidders shall familiarize themselves with the conditions on site and actual quantities required as the prices submitted in the bid shall be inclusive of everything required for successful completion of the project.

2.8 TRANSPORTATION OF MATERIALS

The Contractor shall be responsible for transport of all equipment to the site including loading, off-loading, etc. and all costs and expenses involved in transport from the warehouse storage works to the sites.

The Contractor's responsibility shall also include the construction of an adequate access way, if necessary, for construction and delivery of plant from the public highway to each site. The Contractor shall ensure that damage to any public or private roads or footpaths used by any vehicles or plant proceeding to or from the site kept to a minimum and shall be responsible for the cost of all repairs necessary to restore such roads or footpaths at least to the condition previously obtaining.

2.9 REDUNDANT EQUIPMENT

Redundant equipment as identified by the Engineer shall be carefully removed and delivered to the warehouse as indicated by the Engineer

The contractor shall keep inventory of the quantities and obtain signature of acceptance from the applicable authority.

2.10 PROGRAMME FOR THE WORKS

The Contractor shall within one (1) week of the "Commencement Date" submit a time-scaled linked bar chart in "Microsoft Projects" for approval by the UNDP.

The program shall identify all key activities required to complete the works, show intermediate milestones for the purpose of assessing progress on the works and the proposed timing for all Contract deliverable's including documentation.

This program shall be maintained by the Contractor throughout the project and shall only be varied with the approval of the Engineer.



PART END

3 PART 3 – TECHNICAL SPECIFICATIONS

3.1 GENERAL TECHNICAL SPECIFICATIONS FOR BUILDING WORKS IN IRAQ

The works shall be carried out strictly in accordance with **UNDP’s General Technical Specifications for Building Works in Iraq, Rev 0**, which is **available upon request** and as summarized below:

- 1 SECTION 1 – GENERAL REQUIREMENTS**
 - 1.1 GENERAL TECHNICAL SPECIFICATIONS
 - 1.2 MARKINGS
 - 1.3 PACKING AND SHIPPING
 - 1.4 SERVICE CONDITIONS
 - 1.5 ELECTRICAL SYSTEM CONDITIONS
 - 1.6 CONTRACT MANAGEMENT
 - 1.7 WORKING PRACTICES
 - 1.8 QUALITY ASSURANCE REQUIREMENTS
 - 1.9 DRAWINGS
 - 1.10 INSPECTIONS AND TESTING
 - 1.11 CO-ORDINATION AND MEETINGS
 - 1.12 PROJECT COORDINATION
 - 1.13 SUBMITTALS
 - 1.14 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES
 - 1.15 CONTRACT CLOSE-OUT
 - 1.16 CLEANING
- 2 SECTION 2 - BUILDING DEMOLITION**
 - 2.1 GENERAL
 - 2.2 BUILDING DEMOLITION
 - 2.3 HAZARDOUS MATERIALS
- 3 SECTION 3 - GROUND INVESTIGATION**
 - 3.1 GENERAL
 - 3.2 BOREHOLES
 - 3.3 PITS AND TRENCHES
 - 3.4 SOIL SAMPLING
 - 3.5 IN SITU TESTING, INSTRUMENTATION AND MONITORING
 - 3.6 LABORATORY TESTING
- 4 SECTION 4 – PILING WORKS**
 - 4.1 GENERAL REQUIREMENTS FOR PILING WORK
 - 4.2 GENERAL REQUIREMENTS FOR CONCRETE PILES
- 5 SECTION 5 - CONCRETE**
 - 5.1 GENERAL
 - 5.2 AGGREGATES
 - 5.3 CEMENT
 - 5.4 WATER
 - 5.5 ADMIXTURES



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- 5.6 PROPERTY REQUIREMENTS
 - 5.7 BATCHING AND MIXING
 - 5.8 TRANSPORTATION AND PLACING OF CONCRETE
 - 5.9 FORMWORK
 - 5.10 CURING
 - 5.11 REINFORCEMENT
 - 5.12 JOINTS
 - 5.13 INSPECTION AND TESTING OF HARDENED CONCRETE
 - 5.14 PROTECTIVE TREATMENTS FOR CONCRETE
 - 5.15 HOT WEATHER CONCRETING
 - 5.16 MISCELLANEOUS
 - 5.17 TESTING OF WATER RETAINING STRUCTURES
- 6 SECTION 6 - UNDERGROUND WORKS**
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 - 6.2 SITE CLEARANCE
 - 6.3 EARTHWORKS
 - 6.4 ASPHALT WORKS
 - 6.5 KERBS, FOOTWAYS AND PAVED AREAS
 - 6.6 ROAD LIGHTING
 - 6.7 ROAD DRAINAGE
 - 6.8 MISCELLANEOUS
- 7 SECTION 7 - SEWERAGE**
- 7.1 GENERAL
 - 7.2 EARTHWORKS
 - 7.3 PIPES AND FITTINGS MATERIALS
 - 7.4 PIPELINE INSTALLATION
 - 7.5 PENSTOCKS AND APPURTENANCES
 - 7.6 METAL WORKS
 - 7.7 GLASS REINFORCED PLASTICS
 - 7.8 PAINTING AND PROTECTIVE COATINGS
 - 7.9 TRENCHLESS PIPELINE CONSTRUCTION
 - 7.10 PIPELINE CLEANING AND INSPECTION SURVEY
 - 7.11 SEWER REHABILITATION
 - 7.12 VACUUM SEWERAGE SYSTEM
- 8 SECTION 8 - MECHANICAL AND ELECTRICAL WORKS**
- 8.1 GENERAL
 - 8.2 SUBMERSIBLE PUMPS
 - 8.3 CENTRIFUGAL PUMPS (VERTICAL SPINDLE, DRY-WELL TYPE)
 - 8.4 SUMP PUMPS
- 9 SECTION 9 - EARTH WORKS**
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 - 9.2 EXCAVATION
 - 9.3 FILLING
 - 9.4 UTILITY TRENCHES
 - 9.5 INSTALLATION OF PROTECTIVE MEMBRANES
- 10 SECTION 10 - MASONRY**



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- 10.1 GENERAL
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 - 10.3 ACCESSORIES
 - 10.4 UNIT MASONRY
 - 10.5 MASONRY LAYING

 - 11 SECTION 11 - ROOFING**
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 - 11.2 MEMBRANE ROOFING
 - 11.3 METAL AND PLASTIC ROOFING
 - 11.4 ROOF AND DECK INSULATION
 - 11.5 ROOFING TILES AND SHINGLES

 - 12 SECTION 12 - THERMAL INSULATION OF BUILDINGS**
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 - 12.2 BUILDING INSULATION
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 - 13 SECTION 13 - STRUCTURAL STEEL WORKS**
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 - 13.7 ACCURACY OF FABRICATION
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 - 14 SECTION 14 - METAL WORKS**
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 - 14.4 ARCHITECTURAL METAL WORK
 - 14.5 LIGHT METAL SUPPORT AND CLADDING SUPPORT
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 - 15.2 WOOD TREATMENT
 - 15.3 STRUCTURAL TIMBER
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 - 16 SECTION 16 - PLUMBING WORKS**
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 - 16.2 WATER DISTRIBUTION
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- 16.4 COLD WATER STORAGE
 - 16.5 HOT WATER STORAGE
 - 16.6 COMMISSIONING OF SYSTEMS
 - 16.7 PLUMBING FOR GASES
 - 16.8 STEAM BOILER

 - 17 SECTION 17 - DRAINAGE WORKS**
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 - 17.3 EXTERNAL DRAINAGE WORKS
 - 17.4 DRAINAGE PIPES IN TRENCHES
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 - 18.2 FACTORY BUILT ASSEMBLIES (FBA'S)
 - 18.3 PROTECTIVE DEVICES
 - 18.4 MOTOR STARTERS
 - 18.5 VARIABLE SPEED CONTROLLERS
 - 18.6 CABLES AND SMALL WIRING
 - 18.7 CONDUITS AND CONDUIT BOXES
 - 18.8 TRUNKING
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 - 18.14 STRUCTURED CABLING SYSTEMS
 - 18.15 ELECTRIC MOTORS
 - 18.16 POWER FACTOR CORRECTION CAPACITORS
 - 18.17 DIESEL GENERATOR SET
 - 18.18 UNINTERRUPTIBLE POWER SUPPLY SYSTEMS
 - 18.19 SOUND AND CALL SYSTEMS
 - 18.20 EARTHING AND BONDING
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 - 19 SECTION 19 - AIR CONDITIONING REFRIGERATION AND VENTILATION**
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 - 19.2 CENTRAL REFRIGERATION & AIR CONDITIONING EQUIPMENT⁹⁵⁰
 - 19.3 UNITARY EQUIPMENT
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 - 19.5 DUCTWORK AND AIR-SIDE EQUIPMENT
 - 19.6 THERMAL INSULATION
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PART END



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