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## REQUEST FOR QUOTATION (RFQ)

<b>RFQ 290 - 18</b> <b>Renovation of 3 schools in Hawija sub district - Kirkuk Governorate</b> <b>1- Renovation of Al-Muroj Primary School for Girls.</b> <b>2- Renovation of Al-Nakheel Secondary Mixed School.</b> <b>3- Renovation of Al Hadaf Primary Mixed School.</b>	<b>May 1, 2018</b>
	<b>REFERENCE: RFQ 290-18</b>

Dear Sir / Madam:

We kindly request you to submit your quotation regarding **Renovation of 3 schools in Hawija sub district - Kirkuk Governorate** as detailed in Annex 1 of this RFQ. Documents uploaded in the system as part of your quotation must be free from any form of virus or corrupted contents, or the quotations shall be rejected.

It shall remain your responsibility to ensure that your quotation is submitted on or before the deadline indicated by UNDP in the e-Tendering system. Bids must be submitted in the online e-Tendering system in the following link: <https://etendering.partneragencies.org> using your username and password.

"Bidders who will be registered on the e-tendering will be able to download the complete bidding documents from the e-tendering website as per above link.

"Bidders can download the complete tender documentation from the e-Tendering upon registration".

In case your company is not registered in the E-Tendering Module, please use the following temporary username and password to register your company/firm:

Username: event.guest

Password: why2change

E\_Tendering Link: <https://etendering.partneragencies.org>

The Procurement notice includes the details of the UNDP focal person and the email provided is a Gmail account as per following details:

Site Visit "Details:

**Date & Time: 08 May 2018 between 10:00 a.m. till 12:00 p.m.**

**Focal Person: Eng. Suhaib Adnan, e-mail: [suhaibadnaneng@gmail.com](mailto:suhaibadnaneng@gmail.com)**

**Mobile: +964- 750 136 9147**

Name of focal point for clarifications: Name: Delan Abdula Email Address: [delan.abdula@undp.org](mailto:delan.abdula@undp.org) "

Please take note of the following requirements and conditions pertaining to the supply of the abovementioned good/s:

Delivery Terms; [INCOTERMS 2010] (Pls. link this to price schedule)	N/A
Exact Address/es of Delivery Location/s (identify all, if multiple)	<p>1- <b>Al-Muroj primary school for Girls</b> is located in Tal Ali Village, Hawija area; Coordinates GPS 35.358422 43.666958.</p> <p>2- <b>Al Nakheel Secondary Mixed School</b> is located in Al-Lazaka Village, Hawija –sub district of Kirkuk Governorate. Coordinates GPS 35.388768, 43.695851.</p> <p>3- <b>Al Hadaf primary mixed school</b> is located in Tal Ali Village, Hawija area. Coordinates GPS 35.331265 43.700663.</p>
Latest Expected Delivery Date and Time; (if delivery time exceeds this, quote may be rejected by UNDP)	<p><input checked="" type="checkbox"/> <b>Al-Muroj primary school for Girls</b> Within 50 days from the date of signing the Contract.</p> <p><input checked="" type="checkbox"/> <b>Al Nakheel Secondary Mixed School</b> Within 50 days from the date of signing the Contract.</p> <p><input checked="" type="checkbox"/> <b>Al Hadaf primary mixed school</b> Within 50 days from the date of signing the Contract.</p>
Preferred Currency of Quotation:	<input checked="" type="checkbox"/> United States Dollars.
After-sales services required:	<input checked="" type="checkbox"/> Warranty for a minimum period of 1 Year
Deadline for the Submission of Quotation:	<p>Date and Time: As specified in the system (note that time zone indicated in the system is New York Time zone).</p> <p>PLEASE NOTE: -</p> <p>1. Date and time visible on the main screen of event (on e-tendering portal) will be final and prevail over any other closing time indicated elsewhere, in case they are different. It is the responsibility of the bidder to make sure bids are submitted within this deadline. UNDP will not accept any bid that is not submitted directly in the system.</p> <p>2. Submit your bid a day prior or well before the closing time. Do not wait until last minute. If you face any issue submitting your bid at the last minute, UNDP may not be able to assist.</p>
All documentations, including catalogs, instructions and operating manuals, shall be in this language:	<input checked="" type="checkbox"/> English.
Documents to be submitted:	<p><input checked="" type="checkbox"/> <b>Company Profile</b>, which should not exceed fifteen (15) pages, including the list of completed projects and on-going projects with CVs of required personnel.</p> <p><input checked="" type="checkbox"/> <b>Certificate of Registration of the business</b>, including Articles of Incorporation, or equivalent document if Bidder is a corporation.</p>

	<p><input checked="" type="checkbox"/> <b>Properly filled-in and stamped Price Schedules (Annex-I)</b> with signature. The bidders are also required to submit the soft copy in Excel however, in case of error, the signed copy will prevail.</p> <p><input checked="" type="checkbox"/> <b>Implementation Timetable of the projects by 50 Calendar days for each location.</b></p> <p><input checked="" type="checkbox"/> <b>List of previous contracts and projects executed with values and name of client in the last 7 years.</b></p> <p><input checked="" type="checkbox"/> <b>Duly completed and stamped compliance sheet along with requested documentation.</b></p> <p><input checked="" type="checkbox"/> <b>Qualifications of Key personnel to be assigned to the contract. As below;</b></p> <ul style="list-style-type: none"> <li>• <b>One Project Manager</b> A minimum of <b>5 years'</b> work experience in the renovation/construction works Should have a Degree in Civil Engineering. CV should be attached.</li> <li>• <b>Three Qualified Civil Engineer:</b> A minimum of <b>3 years'</b> work experience in the rehabilitation/construction works. Should have a Degree in Civil Engineering. CV should be attached (one for each location)</li> <li>• <b>One Qualified Mechanical Engineer:</b> A minimum of <b>3 years'</b> work experience in the Mechanical Engineering Field Should have a Degree in Mechanical Engineering. CV should be attached.</li> <li>• <b>One Qualified Electrical Engineer:</b> A minimum of <b>3 years'</b> work experience in the Electrical Engineering field. Should have a Degree in Electrical Engineering. CV should be attached.</li> </ul>
Period of Validity of Quotes starting the Submission Date:	<p><input checked="" type="checkbox"/> 120 days</p> <p>In exceptional circumstances, UNDP may request the Vendor to extend the validity of the Quotation beyond what has been initially indicated in this RFQ. The Proposal shall then confirm the extension in writing, without any modification whatsoever on the Quotation.</p>
Manner of Submitting Bid:	Online bidding in E-tendering module; <a href="https://etendering.partneragencies.org">https://etendering.partneragencies.org</a>
Partial Quotes:	<input checked="" type="checkbox"/> <b>Not allowed.</b>
Payment Terms:	<input checked="" type="checkbox"/> 100% upon successful completion of the entire works as mentioned in the BOQ.
Liquidated Damages:	0.5% of the contract value for one-week delay to maximum 10% of the contract value with possibility to cancel the Purchase Order.

Evaluation Criteria	<input checked="" type="checkbox"/> Minimum 2 similar (renovation/rehabilitation) contracts completed successfully within the last 7 years. (Please provide the name and contract details for reference check). <input checked="" type="checkbox"/> Technical responsiveness/Full compliance to BOQ requirements. <input checked="" type="checkbox"/> Annex-1 Form duly completed and signed for the entire requirement. <input checked="" type="checkbox"/> Full acceptance of the Contract General Terms and Conditions [this is mandatory criteria and cannot be deleted regardless of the nature of services required]. <input checked="" type="checkbox"/> Full Compliance with delivery timeframe of 50 days for each location. <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> CVs of proposed key personnel as per the requirement</li> <li><b>One Project Manager</b> A minimum of <b>5 years'</b> work experience in the rehabilitation/construction works, should have a Degree in Civil Engineering. CV should be attached.</li> <li><b>Three Qualified Civil Engineer:</b> A minimum of <b>3 years'</b> work experience in the rehabilitation/construction works. Should have a Degree in Civil Engineering. CV should be attached. ((one for each location)).</li> <li><b>One Qualified Mechanical Engineer:</b> A minimum of <b>3 years'</b> work experience in the Mechanical Engineering Field Should have a Degree in Mechanical Engineering. CV should be attached.</li> <li><b>One Qualified Electrical Engineer:</b> A minimum of <b>3 years'</b> work experience in the Electrical Engineering Field Should have a Degree in Electrical Engineering. CV should be attached.</li> </ul>
UNDP will award to:	<input checked="" type="checkbox"/> One Supplier.
Type of Contract to be Signed:	<input checked="" type="checkbox"/> Contract for Civil Works.
Conditions for Release of Payment:	<input checked="" type="checkbox"/> 100 % upon successful completion of all services and acceptance by UNDP and end user.
Annexes to this RFQ:	<input checked="" type="checkbox"/> Form for submitting supplier's quotation (Annex I). <input checked="" type="checkbox"/> Compliance Sheet (Annex II). <input checked="" type="checkbox"/> Drawings <input checked="" type="checkbox"/> UNDP General Conditions of Contract for Civil Works (Annex IV) Non-acceptance of the terms of the General Terms and Conditions (GTC) shall be grounds for disqualification from this procurement process.
Contact Person for Inquiries; (Written inquiries only)	<b>Delan Othman Abdula</b> <b>Procurement Assistant</b> <a href="mailto:Delan.abdula@undp.org">Delan.abdula@undp.org</a> Any delay in UNDP's response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Proposers.

<sup>1</sup>-UNDP reserves the right not to award the contract to the lowest priced offer, if the second lowest price among the responsive offer is found to be significantly more superior, and the price is higher than the lowest priced compliant offer by not more than 10%, and the budget can sufficiently cover the price difference. The term "more superior" as used in this provision shall refer to offers that have exceeded the pre-determined requirements established in the specifications.

<sup>2</sup>- Where the information is available in the web, a URL for the information may simply be provided.

3- This contact person and address is officially designated by UNDP. If inquiries are sent to other person/s or address/es, even if they are UNDP staff, UNDP shall have no obligation to respond nor can UNDP confirm that the query was received.

Goods offered shall be reviewed based on completeness and compliance of the quotation with the minimum specifications described above and any other annexes providing details of UNDP requirements.

The quotation that complies with all of the specifications, requirements and offers the lowest price, as well as all other evaluation criteria indicated, shall be selected. Any offer that does not meet the requirements shall be rejected.

Any discrepancy between the unit price and the total price (obtained by multiplying the unit price and quantity) shall be re-computed by UNDP. The unit price shall prevail and the total price shall be corrected. If the supplier does not accept the final price based on UNDP's re-computation and correction of errors, its quotation will be rejected.

After UNDP has identified the lowest price offer, UNDP reserves the right to award the contract based only on the prices of the goods in the event that the transportation cost (freight and insurance) is found to be higher than UNDP's own estimated cost if sourced from its own freight forwarder and insurance provider.

At any time during the validity of the quotation, no price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted by UNDP after it has received the quotation.

At the time of award of Contract or Purchase Order, UNDP reserves the right to vary (increase or decrease) the quantity of services and/or goods, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

Any Purchase Order that will be issued as a result of this RFQ shall be subject to the General Terms and Conditions attached hereto. The mere act of submission of a quotation implies that the vendor accepts without question the General Terms and Conditions of UNDP herein attached as Annex IV.


UNDP is not bound to accept any quotation, nor award a contract/Purchase Order, nor be responsible for any costs associated with a Supplier's preparation and submission of a quotation, regardless of the outcome or the manner of conducting the selection process. Please be advised that UNDP's vendor protest procedure is intended to afford an opportunity to appeal for persons or firms not awarded a purchase order or contract in a competitive procurement process. In the event that you believe you have not been fairly treated, you can find detailed information about vendor protest procedures in the following link:

<http://www.undp.org/content/undp/en/home/operations/procurement/protestandsanctions/>

UNDP encourages every prospective Vendor to avoid and prevent conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, specifications, cost estimates, and other information used in this RFQ. UNDP implements a zero tolerance on fraud and other proscribed practices, and is committed to identifying and addressing all such acts and practices against UNDP, as well as third parties involved in UNDP activities. UNDP expects its suppliers to adhere to the UN Supplier Code of Conduct found in this link: [http://www.un.org/depts/ptd/pdf/conduct\\_english.pdf](http://www.un.org/depts/ptd/pdf/conduct_english.pdf)

Thank you and we look forward to receiving your quotation.

Sincerely your



**Piero Emanuele Franceschetti**  
Head of Service Center  
UNDP, Iraq.

**Annex-I**  
**FORM FOR SUBMITTING SUPPLIER'S QUOTATION**

**Renovation of 3 schools in Hawija Sub district-Kirkuk Governorate**  
**(This Form must be submitted only using the Supplier's Official Letterhead/Stationery)**

We, the undersigned, hereby accept in full the UNDP General Terms and Conditions, and hereby offer to supply the items listed below in conformity with the specification and requirements of UNDP as per the RFQ-290/18:

Summary of Renovation of 3 schools in Hawija Sub district-Kirkuk Governorate		
#	Name of School	Amount(USD)
1	Renovation of Al Hadaf Primary Mixed School in Hawija - Kirkuk Governorate	0.00
2	Renovation of Al-Nakheel Secondary Mixed School in Hawija-kirkuk Governorate	0.00
3	Renovation of Al-Muroj Primary School for Girls in Hawija-Kirkuk Governorate	0.00
	<b>Total</b>	<b>0.00</b>

Renovation of Al Hadaf Primary Mixed School in Hawija-Sub district of Kirkuk Governorate GPS (35.331265,43.700663)					
	<b>General Specification</b>				
	1- All the materials supplied by the contractor must be according to Iraq's standard Specifications				
	2- The contractor must provide samples , catalogues and specification of materials for testing and approval by the site engineer				
	3- Contractor must pay the cost for samples including any laboratory test required				
	4- The price of works includes all job requirements as per Iraq's standard specification.				
	5- The contractor must provide PPE for all laborer's, personnel, engineers and possible visitors to the site				
#	Item Description	Unit	Qty	Price\$	Total \$
	<b>CIVIL WORKS</b>				
1	<b>Site preparation:</b> Supply of materials, tools, machineries and manpower for site preparation by cleaning and removing of all debris, rubble and dumping it to a location approved by local authorities. All needed works to complete the job, shall be included within the price. See Scope of work	LS	1		0.00



2	<b>Concrete with BRC (Yard):</b> Supply of materials, tools and manpower to cast concrete (21Mpa) of thickness 15cm. Reinforcement by using BRC Ø6mm 15x15 cm. Including leveling the natural ground, compaction up to 95% of MDD, providing a subbase layer of 20cm type B and then again compaction up to 95%, and after concreting, providing expansion joints every 4.0m in both directions. All needed works to complete the job, will be included within the price.	m2	100		0.00
3	<b>Cement plastering with crack repairing:</b> Supply of materials, tools and manpower to repair wall cracks and remove the damaged cement plastering of external walls & fence by removing the damaged cement plastering minimum 35cm at each side of the crack, then treat the cracks with crack filler approved by manufacture with cement mortar 1:3 and using SBR at a rate of 200gr per m2, later putting a layer of metal chicken mesh 10 cm overlap each side on the area with 3 layers of cement plastering 1:3. All needed works to complete the job, will be included within the price.	m²	15		0.00
4	<b>Gypsum plastering with crack repairing:</b> Supply of all necessary materials, tools and manpower to remove the damaged gypsum plastering of internal walls & ceiling and plastering with new gypsum plastering in 2 layers minimum thickness 20mm. The work includes repairing of wall cracks by removing the damaged gypsum plastering 25cm at each side of the crack, then filling the cracks with cement mortar 1:3 and using SBR at a rate of 200gr per m2, later putting a layer of plastic mesh on the area under the gypsum plastering. All needed works to complete the job, will be included within the price.	m²	15		0.00
5	<b>Sliding steel door (W4XH2m) one leaf:</b> Supply of materials, tools and manpower to remove the damaged sliding steel door and removing the debris and rubble to a site approved by local authority, then install new slide steel door (one leaf), including plate gauge 18 on double faces, the gate has a frame of square steel pipe (75x75x3mm) and sub divider of pipe (50x50x3mm) @ 40cm c/c, slide steel frame U channel (84mm) top and bottom. The price of work shall include painting with anti-rust and 2 layers oil paint, rollers, door handles and locks. All needed works to complete the job, will be included within the price. <b>See attached drawing</b>	m2	8		0.00
6	<b>Steel door (W1xH2m)one leaf:</b> Supply of materials, tools and manpower to install steel door, with steel plate gauge 18(1.41mm) on double face, using steel tube 40x40x2mm, including a layer of Styrofoam to be placed between the two faces, hinges, doors handles, locks and fixing a stopper on the floor or wall. The price of work includes the painting of steel door using anti-rust and 2 layers of oil paint. All needed work to complete the job will be included within the price. <b>See attached drawings</b>	NO.	4		0.00

7	<b>Repair steel doors:</b> Supply of materials, tools, machineries and manpower to repair the damaged steel doors. Price of works shall include door lock, handles, hinges, oil painting and accessories. All needed work to complete the job will be included within the price.	NO.	6		0.00
8	<b>Repair Steel Windows:</b> Supply of materials, tools, machineries and manpower to repair the damaged steel windows, including welding, painting, anti-insects wire mesh for openable parts and handle. All needed works to complete the job, will be included within the price.	NO.	15		0.00
9	<b>Plastic painting:</b> Supply of materials, tools and manpower to paint the exterior walls and fence, with three layers of plastic (silicon water proof) paint. The job includes cleaning the walls, removing the dirt and dust, repairing all the cracks and filling all the holes before painting. All needed works to complete the job, shall be included within the price.	m <sup>2</sup>	1,500		0.00
10	<b>Emulsion painting</b> Supply of materials, tools and manpower to paint the interior walls and ceilings, with 3 layers of emulsion painting. The job includes cleaning the walls and ceilings, removing the dirt and dust, repairing all the cracks and filling all the holes before painting. All needed works to complete the job, shall be included within the price.	m <sup>2</sup>	1,000		0.00
11	<b>Oil painting:</b> Supply of materials, tools and manpower to paint the steel doors, windows, and internal walls with a paint (1.50m height) for skirting using 3 layers of oil paint. The job includes cleaning the walls, removing the dirt and dust, repairing all the cracks and filling all the holes before painting. All needed works to complete the job, shall be included within the price.	m <sup>2</sup>	500		0.00
12	<b>Crystal clear glass 6mm:</b> Supply of materials, tools and manpower to remove the damaged glass and paste and to install new crystal clear glass 6 mm with new paste, dumping of all debris to a site approved by local authorities. All needed work to complete the job will be included within the price.	m <sup>2</sup>	20		0.00
13	<b>Steel stair with handrail:</b> Supply of materials, tools and manpower to install steel stair with handrail (90cm height). The price includes providing channel steel section, checkered plates 3mm and rectangular steel tube 80x40x3mm, painting with anti-rust paint and three layers of oil paint. All needed work to complete the job will be included within the price. <b>See attached drawing</b>	ml	5		0.00



1 4	<b>Gypsum board Suspended Ceiling :</b> Supply of materials, tools and manpower to install gypsum board suspended ceiling 60x60 cm, 10mm thickness, by using necessary accessories L, T sections, hold down clips, galvanized steel rod 5mm (1.2x1.2m) for fixing with the ceiling by screws. The price includes the removal of old damaged suspended ceiling, dumping of all debris to a site approved by local authorities, in case it is needed. All needed work to complete the job will be included within the price. <b>See attached drawing</b>	m2	85		0.00
1 5	<b>Repairing of roofing joints with sealant(mastic):</b> Supply of materials, tools and manpower to remove the defected sealants and fill the joints with joint sealant(mastic). The price includes cleaning the joints before filling with sealants. All needed works to complete the job will be included within the price.	LS	1		0.00
1 6	<b>Billboard</b> Supply of materials, tools and manpower to install billboard made of frame of size 3x1 m, including LED printed sticker. The frame shall be made of square pipe section 4x4cm. Price of the work shall include all requirements to complete the job.	NO.	1		0.00
1 7	<b>Class title:</b> Supply of materials and manpower to install room title name made of plastic sheet size 15x25 cm, using screws to fix. All needed work to complete the job will be included within the price.	NO.	8		0.00
1 8	<b>Flag pole :</b> Supply of materials, tools and manpower to install Flag pole of 6 m height by using 2.5" pipe. Price of the work shall include anti rust and three layers oil painting. All needed work to complete the job will be included within the price.	NO.	1		0.00
<b>Subtotal for Civil Works</b>					<b>0.00</b>
<b>SANITARY WORKS</b>					
1	<b>Water tank:</b> Supply of materials, tools and manpower for installing galvanized water tank of 1400 liters. Cylindrical shape and with plate gauge 16(1.56mm), supported by steel base made with 50mm (2") angle shape, including the connection of the inlet and outlet pipes. The price of work includes all piping and fittings, valves, float valves, accessories. All needed work to complete the job will be included within the price.	NO.	3		0.00
2	<b>Roof Drain pipes (4"):</b> Supply of materials, tools and manpower to remove the damaged water roof drain pipes and install new galvanized steel pipes 4" (100mm). Including all connections and needed accessories to fix on roof and walls. All needed work to complete the job will be included within the price. <b>See attached drawings</b>	ml	12		0.00

3	<b>Ceramic wash basin:</b> Supply of materials , tools and manpower to install ceramic wash basin with stand, mixer taps , valves , mirror(60x50)cm and all fittings with complete water connections . All needed work to complete the job will be included within the price.	NO.	2		0.00
4	<b>Mixer taps:</b> Supply of materials, tools and manpower to install mixer taps , locks and all accessories with complete water connections. All needed work to complete the job will be included within the price.	NO.	1		0.00
5	<b>Taps:</b> Supply of materials, tools and manpower to connect chrome water taps 1/2" or 3/4". Price of the work shall include water connections. All needed work to complete the job will be included within the price.	NO.	8		0.00
6	<b>PPR water pipes maintenance:</b> Supply of materials, tools and manpower for inspecting and repairing PPR water pipes Ø1/2" and Ø3/4" (Hot Cold). The price of work includes all pipe fittings, isolation of all hot water pipes by using arm flex and thermal tape, concreting 10cm around the pipes and backfilling. All needed works to complete the job will be included within the price.	ml	25		0.00
7	<b>Eastern toilet with siphon:</b> Supply of materials, tools and manpower to remove the damaged eastern toilet pan and to install new ceramic eastern toilet. Including siphon(flush tank), gully trap Ø100mm (4"), flexible hose and water connections. All needed work to complete the job will be included within the price.	EA	1		0.00
8	<b>Siphon (Flush Tank):</b> Supply of materials, tools and manpower to install siphon, valves and all needed accessories for completing water connections. All needed works to complete the job, will be included within the price.	NO.	4		0.00
9	<b>Maintenance of sewerage pipes:</b> Supply of materials, machine and manpower to clean the sewerage pipes net starting from the toilets, manholes to the main septic tank using high pressure air/water. The work includes replace the damaged manhole covers and others with new one. All needed work to complete the job will be included within the price.	LS	1		0.00
10	<b>Water pump:</b> Supply materials, tools and manpower to connect water pump (1hp), Q=3m³/Hr., H=60m with, ball valve and all fitting and accessories for connection. The price of works includes all accessories needed, as well as all needed works to complete the job.	NO.	1		0.00
<b>Subtotal for Sanitary works</b>					<b>0.00</b>
<b>Mechanical works</b>					

1	<b>Submersible pump, electrical panel board and pipe:</b> - Supply, install and test submersible pump Q=6 m <sup>3</sup> /hr. @ H=162meter, single phase, 220 volt, (Grandfos, Wilo, KSB or equivalent), with required cables, with check valve and electrical control panel (including: starter, main and secondary circuit breakers, overload protection, ammeter, voltmeter, frequency meter, indication lamps, and contactors) supplied by (ABB, Schneider, pump supplier or equivalent) with supplying coated steel wire to suspend the submersible pump. - supply and install 1" galvanized pipe with coarse thread (140 meters), and the price includes connecting to the existing line outside of the well, with all connection that the work requires. - Supply and install required cables (size and length). - clean and remove old pumps and pipes, debris and rubble outside the site to a location approved by the local authority. - All needed works to complete the job shall be included within the price. <b>See the attached compliance sheet</b>	NO.	1		0.00
	<b>Total for mechanical works</b>				<b>0.00</b>
	<b>ELECTRICAL WORKS</b>				
	<b>Note:- The price include removal and disposal all defective and damage items to designated stores "The following items shall include supply, replace, install, connect and commission all lighting points and power points. All the necessary equipment/items ( if any) must be earthed properly with specific wire/cable size.</b>				
1	<b>Socket Switch(13A):</b> Supplying & fixing of combine 13A, 5 pin universal switch-socket with shuttered & indicator outlet, on PVC molded tough surface box includes wiring/connecting with 1.0 kV grade 3*2.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	30		0.00
2	<b>Light Switch:</b> Supply, install, connect and commission of (230VAC/6A) (single , double , triple and quadruple) light switches includes wiring with 1.0 kV grade 2*1.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with all accessories. The price include supplying, installing, connecting, laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	9		0.00

3	<b>Fluorescent Lighting:</b> Supplying ,Installation, testing and commissioning of prewired fluorescent fittings of all pendant type complete set with tube rod 36W/19mm dia( 4feet) includes wiring/connecting with 1.0 kV grade 2*1.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A switches with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	60		0.00
4	<b>Spot Lighting:</b> Supply, install, connect and commission spot lighting fixtures, LED (240VAC/18 W), complete set with all accessories such as base, LED drive & LED bulb, glass, reflector includes wiring with 1.0 kV grade 2*1.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A switches with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	24		0.00
5	<b>Ceiling Fan:</b> Supply, install, test and commission of ceiling fan (240 volt A.C 1400 rpm,1400mm sweep with 56") , down rod of standard length up to 300mm,sweep 3 Nos.,canopy 2 Nos., condenser and fan body and fan regulator includes wiring/connecting with 1.0 kV grade 2*1.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	6		0.00
6	<b>Outdoor Lighting fixture:</b> Supplying & Installing of bracket waterproof wall prewired outdoor lighting luminaries suitable for GLS lamp 230VAC/23 watts complete with all accessories such as base, LED drive & LED bulb, glass, reflector, louvered, includes wiring/connecting with 1.0 kV grade 2*1.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A switches with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	16		0.00

7	<b>Exhaust fan:</b> Supplying, fixing and connecting of exhaust fan 240 volt A.C 1400 rpm & 450mm sweep (25cm) includes wiring/connecting with 1.0 kV grade 2*1.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A switches with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	4		0.00
8	<b>Electrical bell:</b> Supplying and Installing of electrical call bell 1 ph./5W includes wiring/connecting with 1.0 kV grade 2*1.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A door bell switch with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	2		0.00
9	<b>Stainless Steel water cooler:</b> Supplying, installing, commissioning stainless steel electrical water-cooler with three taps,150 Liter, water connections includes wiring/connecting with 1.0 kV grade 2*2.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required. <b>See the attached compliance sheet</b>	NO	2		0.00
10	<b>Electrical Water Heater:</b> Supply, install, connect, and commission electrical heater 250 Liter capacity 3 kW, with complete fittings & accessories includes wiring/connecting with 1.0 kV grade 3*4 mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 25A switch and with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required. <b>See the attached compliance sheet</b>	NO	1		0.00
11	<b>Power Cable (4X16 mm<sup>2</sup>):</b> Supply, install, test and lay 1.0 kV grade (4X16 mm <sup>2</sup> ) PVC insulated sheath-Armored copper cable.(From the pole network to the main board ) laid through PVC pipe ( 4" dia) with cable termination lugs in both sides with all accessories. The price includes supplying, installing, connecting, laying, drilling & cutting ( concrete wall if required ) and commissioning include (cable termination with Cu lugs at both end) to complete works as required.	M	35		0.00

1 2	<b>Power Cable (4X10 mm2):</b> Supply, install, test and lay 1.0 kV grade (4X10 mm <sup>2</sup> ) PVC insulated sheath-Un-Armored copper cable.(From the Main board to the Sub distribution board) laid through surface PVC conduit pipe /cable tray with all accessories. The price includes supplying, installing, connecting, laying, drilling & cutting ( concrete wall if required ) and commissioning include (cable termination with Cu lugs at both end) to complete works as required.	M	45		0.00
1 3	<b>Sub Distribution Boards ( 12 ways):</b> Supplying, installing, testing and commissioning of for 12 ways, TPN DB (DIN type, horizontal/vertical) with single door complete set to accommodate incoming miniature circuit breaker (MCB) triple pole, 1 x 63 Amps, and outgoing SP MCB 12 x 32 Amps on/in prefabricated MS surface /MS cubical control panel board with neutral strip/bar with all accessories. The price includes supplying, installing, connecting, drilling & cutting ( concrete wall if required ) and commissioning include (cable termination with Cu lugs at end) to complete works as required.	NO.	3		0.00
1 4	<b>Main Board:</b> Supply, install, test, commission prefabricated Main Distribution Board (MDB) (100cm x 80cmx 40cm) incorporated in DIN bar with following incoming and outgoing as: The price includes supplying, installing, connecting, drilling & cutting ( concrete wall if required ) and commissioning include (cable termination with Cu lugs at both end) to complete works as required. A - [(1 No.) 100A, 4 pole MCCB type, breaking capacity 25 kA] B - [(4 No.) 63A, 1Ph. MCB type]. C - (1 No.)Voltmeter (0- 400 V) with selector switch (all Ph-Ph and Ph -N) D - (1 Set)Ammeter (0 -200 A), 200/5A with required CTs.. E - (1 No.)Hertz meter (48- 52 )Hz. F - (1 No.) selector switch.(ON & OFF position) G - (3 No.) Indicator lamp 230VAC H - Three-phase, four wires Kilowatt-hour meter . I - (4 strips Copper Bus-Bar 60 cm each length 150A., for three phase lines and neutral ) with separate earth strip.	NO.	1		0.00
	<b>Subtotal for Electricals Works</b>				<b>0.00</b>
	<b>TOTAL</b>				<b>0.00</b>

Renovation of Al-Nakheel Secondary Mixed School in Hawija-kirkuk Governorate GPS (35.388768,43.695851)	
	<b>General Specification</b>
	1- All the materials supplied by the contractor must be according to Iraq's standard Specifications
	2- The contractor must provide samples , catalogues and specification of materials for testing and approval by the site engineer



3- Contractor must pay the cost for samples including any laboratory test required					
4- The price of works includes all job requirements as per Iraq's standard specification.					
5- The contractor must provide PPE for all laborer's, personnel, engineers and possible visitors to the site					
#	Item Description	Unit	Qty	Price \$	Total \$
	<b>CIVIL WORKS</b>				
1	<b>Site preparation:</b> Supply of materials, tools, machineries and manpower for site preparation by cleaning and removing of all debris, rubble and dumping it to a location approved by local authorities. All needed works to complete the job, shall be included within the price. See Scope of work	LS	1		0.00
2	<b>Concrete with BRC (Yard):</b> Supply of materials, tools and manpower to cast concrete for yards (C21Mpa) of 15cm thickness and reinforced by using BRC (Ø6mm 15x15cm). Including removal of damaged concrete floor, leveling, removing and dumping of rubble to a site approved by local authorities, backfilling with compacted (95% of MDD ) sub-base materials 20cm thickness, formworks, polyethylene sheet laying, expansion joints every 4m in both directions and leveling. All needed works to complete the job will be included within the price.	m2	500		0.00
3	<b>Masonry works (Fence 20cm width):</b> Supply of materials, tools and manpower for rebuilding new fence of 20cm width by using solid blocks 15x20x40cm and cement mortar (1:3) mix ratio. The wall should be leveled vertically and horizontally. Price of the work shall include remove the wall damaged with all the requirements to complete the job.	m2	100		0.00
4	<b>Cement plastering with crack repairing:</b> Supply of materials, tools and manpower to repair wall cracks and remove the damaged cement plastering of external walls & fence by removing the damaged cement plastering minimum 35cm at each side of the crack, then treat the cracks with crack filler approved by manufacture with cement mortar 1:3 and using SBR at a rate of 200gr per m2, later putting a layer of metal chicken mesh 10 cm overlap each side on the area with 3 layers of cement plastering 1:3. All needed works to complete the job, will be included within the price.	m²	550		0.00

5	<b>Gypsum plastering with crack repairing:</b> Supply of all necessary materials, tools and manpower to remove the damaged gypsum plastering of internal walls & ceiling and plastering with new gypsum plastering in 2 layers minimum thickness 20mm. The work includes repairing of wall cracks by removing the damaged gypsum plastering 35cm at each side of the crack, then filling the cracks with cement mortar 1:3 and using SBR at a rate of 200gr per m2, later putting a layer of plastic mesh on the area under the gypsum plastering. All needed works to complete the job, will be included within the price.	m <sup>2</sup>	75		0.00
6	<b>Steel door (W1xH2m):</b> Supply of materials, tools and manpower to install steel door without frame, with steel plate gauge 18(1.41mm) on double face, using steel tube 40x40x2mm, including a layer of Styrofoam to be placed between the two faces, hinges, doors handles, locks and fixing a stopper on the floor or wall. The price of work includes removal of existing door and painting of new steel door using anti-rust and 2 layers of oil paint. All needed work to complete the job will be included within the price. See attached drawing <b>See attached drawings</b>	EA	4		0.00
7	<b>Repair steel doors:</b> Supply of materials, tools, machineries and manpower to repair damaged steel doors. Price of works shall include cleaning and scratching the surface by using steel wire brush, door lock, handles, hinges, oil painting and accessories. All needed work to complete the job will be included within the price	EA	4		0.00
8	<b>Steel door (W1.8xH2.1m):</b> Supply of materials, tools and manpower to install steel door without frame, with steel plate gauge 18(1.41mm) on double face, using steel tube 40x40x2mm, including a layer of Styrofoam to be placed between the two faces, hinges, doors handles, locks and fixing a stopper on the floor or wall. The price of work includes removal of existing door and painting of new steel door using anti-rust and 2 layers of oil paint. All needed work to complete the job will be included within the price. See attached drawing. <b>See attached drawings</b>	EA	1		0.00
9	<b>Sliding steel door (W4XH2.2m):</b> Supply of materials, tools and manpower to remove the damaged sliding steel door and removing the debris and rubble to a site approved by local authority, then install new slide steel door (one leaf), including plate gauge 16 on double faces, the gate has a frame of square steel pipe (75x75x3mm) and sub divider of pipe (50x50x3mm) @ 40cm c/c, slide steel frame U channel (84mm) top and bottom. The price of work shall include painting with anti-rust and 2 layers oil paint, rollers, door handles and locks. All needed works to complete the job, will be included within the price. <b>See attached drawing</b>	EA	1		0.00

1 0	<b>Repair steel windows:</b> Supply of materials, tools, machineries and manpower to repair the damaged steel windows, including welding, painting, anti-insects wire mesh for openable parts and handle. All needed works to complete the job, will be included within the price.	EA	15		0.00
1 1	<b>Gypsum board Suspended Ceiling :</b> Supply of materials, tools and manpower to install gypsum board suspended ceiling 60x60 cm, 10mm thickness, by using necessary accessories L, T sections, hold down clips, galvanized steel rod 5mm (1.2x1.2m) for fixing with the ceiling by screws. The price includes the removal of old damaged suspended ceiling, dumping of all debris to a site approved by local authorities, in case it is needed. All needed work to complete the job will be included within the price. <b>See attached drawing</b>	m2	85		0.00
1 2	<b>Ceramic tiles for Walls:</b> Supply of materials, tools and manpower to remove the damaged ceramic tiles and dumping it to a place approved by local authority, then apply ceramic tiles for walls (25x40cm) or same as the existing size and color, using cement sand mortar(1:3), filling the joints with white cement . All needed work to complete the job will be included within the price.	M2	85		0.00
1 3	<b>Plastic painting:</b> Supply of materials, tools and manpower to paint the exterior walls and fence, with three layers of plastic (silicon water proof) paint. The job includes cleaning the walls, removing the dirt and dust, repairing all the cracks and filling all the holes before painting. All needed works to complete the job, shall be included within the price.	m <sup>2</sup>	1,500		0.00
1 4	<b>Emulsion painting</b> Supply of materials, tools and manpower to paint the interior walls and ceilings, with 3 layers of emulsion painting. The job includes cleaning the walls and ceilings, removing the dirt and dust, repairing all the cracks and filling all the holes before painting. All needed works to complete the job, shall be included within the price.	m <sup>2</sup>	1,000		0.00
1 5	<b>Oil painting:</b> Supply of materials, tools and manpower to paint the steel doors, windows, and internal walls with a paint (1.50m height) for skirting using 3 layers of oil paint. The job includes cleaning the walls, removing the dirt and dust, repairing all the cracks and filling all the holes before painting. All needed works to complete the job, shall be included within the price.	m <sup>2</sup>	500		0.00
1 6	<b>Roof waterproofing:</b> Supply of materials, tools and manpower to clean, wash and paint the roof using 3 layers of waterproofing paint. All needed works to complete the job will be included within the price	m2	700		0.00

1 7	<b>Crystal clear glass 6mm:</b> Supply of materials, tools and manpower to remove the damaged glass and paste and to install new crystal clear glass 6 mm with new paste, dumping of all debris to a site approved by local authorities. All needed work to complete the job will be included within the price..	m <sup>2</sup>	15		0.00
1 8	<b>Steel stair with handrail:</b> Supply of materials, tools and manpower to install steel stair with handrail (90cm height). The price includes providing channel steel section, checkered plates 3mm and rectangular steel tube 80x40x3mm, painting with anti-rust paint and three layers of oil paint. All needed work to complete the job will be included within the price. <b>See attached drawing</b>	ml	5		0.00
1 9	<b>Billboard</b> Supply of materials, tools and manpower to install billboard made of frame of size 3x1 m, including LED printed sticker. The frame shall be made of square pipe section 4x4cm. Price of the work shall include all requirements to complete the job	EA	1		0.00
2 0	<b>Class title:</b> Supply of materials and manpower to install room title name made of plastic sheet size 15x25 cm, using screws to fix. All needed work to complete the job will be included within the price.	EA	10		0.00
2 1	<b>Flag pole :</b> Supply of materials, tools and manpower to install Flag pole of 6 m height by using 2.5" pipe. Price of the work shall include anti rust and three layers oil painting. All needed work to complete the job will be included within the price.	EA	1		0.00
<b>Subtotal for Civil Works</b>					<b>0.00</b>
<b>SANITARY WORKS</b>					
1	<b>Water tank:</b> Supply of materials, tools and manpower for installing galvanized water tank of 1400 liters. Cylindrical shape and with plate gauge 16(1.56mm), supported by steel base made with 50mm (2") angle shape, including the connection of the inlet and outlet pipes. The price of work includes all piping and fittings, valves, float valves, accessories. All needed work to complete the job will be included within the price.	EA	4		0.00
2	<b>Roof Drain pipes (4"):</b> Supply of materials, tools and manpower to remove the damaged water roof drain pipes and install new galvanized steel pipes 4" (100mm). Including all connections and needed accessories to fix on roof and walls. All needed work to complete the job will be included within the price. <b>See attached drawings</b>	ml	18		0.00

3	<b>Ceramic wash basin:</b> Supply of materials , tools and manpower to install ceramic wash basin with stand, mixer taps , valves , mirror(60x50)cm and all fittings with complete water connections . All needed work to complete the job will be included within the price.	EA	2		0.00
4	<b>Mixer taps:</b> Supply of materials, tools and manpower to install mixer taps , locks and all accessories with complete water connections. All needed work to complete the job will be included within the price.	EA	1		0.00
5	<b>Taps:</b> Supply of materials, tools and manpower to connect chrome water taps 1/2" or 3/4". Price of the work shall include water connections. All needed work to complete the job will be included within the price.	EA	10		0.00
6	<b>PPR water pipes maintenance:</b> Supply of materials, tools and manpower for inspecting and repairing PPR water pipes Ø1/2" and Ø3/4" (Hot Cold). The price of work includes all pipe fittings, isolation of all hot water pipes by using arm flex and thermal tape, concreting 10cm around the pipes and backfilling. All needed works to complete the job will be included within the price.	ml	40		0.00
7	<b>Eastern toilet with siphon:</b> Supply of materials, tools and manpower to remove the damaged eastern toilet pan and to install new ceramic eastern toilet. Including siphon(flush tank), gully trap Ø100mm (4"), flexible hose and water connections. All needed work to complete the job will be included within the price.	EA	1		0.00
8	<b>Siphon (Flush Tank):</b> Supply of materials, tools and manpower to install siphon, valves and all needed accessories for completing water connections. All needed works to complete the job, will be included within the price.	EA	2		0.00
9	<b>Maintenance of sewerage pipes:</b> Supply of materials, machine and manpower to clean the sewerage pipes net starting from the toilets, manholes to the main septic tank using high pressure air/water. The work includes replace the damaged manhole covers and others with new one. All needed work to complete the job will be included within the price.	LS	1		0.00
10	<b>Water pump:</b> Supply materials, tools and manpower to connect water pump (1hp), Q=3m³/Hr., H=60m with, ball valve and all fitting and accessories for connection. The price of works includes all accessories needed, as well as all needed works to complete the job.	EA	1		0.00
<b>Subtotal for Sanitary works</b>					<b>0.00</b>
<b>ELECTRICL WORKS</b>					

	<p><b>Note:-</b> The price include removal and disposal all defective and damage items to designated stores "The following items shall include supply, replace, install, connect and commission all lighting points and power points. All the necessary equipment/items ( if any) must be earthed properly with specific wire/cable size.</p>				
1	<p><b>Socket Switch(13A):</b> Supplying &amp; fixing of combine 13A, 5 pin universal switch-socket with shuttered &amp; indicator outlet, on PVC molded tough surface box includes wiring/connecting with 1.0 kV grade 3*2.5mm<sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with all accessories. The price includes supplying,installing,connecting,laying, drilling &amp; cutting ( concrete wall if required ) and commissioning to complete works as required.</p>	EA	42		0.00
2	<p><b>Light Switch:</b> Supply, install, connect and commission of (230VAC/6A) (single , double , triple and quadruple) light switches includes wiring with 1.0 kV grade 2*1.5mm<sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with all accessories. The price include supplying, installing, connecting, laying, drilling &amp; cutting ( concrete wall if required ) and commissioning to complete works as required.</p>	EA	12		0.00
3	<p><b>Fluorescent Lighting:</b> Supplying ,Installation, testing and commissioning of prewired fluorescent fittings of all pendant type complete set with tube rod 36W/19mm dia( 4feet) includes wiring/connecting with 1.0 kV grade 2*1.5mm<sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A switches with all accessories. The price includes supplying,installing,connecting,laying, drilling &amp; cutting ( concrete wall if required ) and commissioning to complete works as required.</p>	EA	120		0.00
4	<p><b>Spot Lighting:</b> Supply, install, connect and commission spot lighting fixtures, LED (240VAC/18 W), complete set with all accessories such as base, LED drive &amp; LED bulb, glass, reflector includes wiring with 1.0 kV grade 2*1.5mm<sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A switches with all accessories. The price includes supplying,installing,connecting,laying, drilling &amp; cutting ( concrete wall if required ) and commissioning to complete works as required.</p>	EA	24		0.00



5	<p><b>Ceiling</b> Supply, install, test and commission of ceiling fan (240 volt A.C 1400 rpm, 1400mm sweep with 56") , down rod of standard length upto 300mm, sweep 3 Nos., canopy 2 Nos., condenser and fan body and fan regulator includes wiring/connecting with 1.0 kV grade 2*1.5mm<sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with all accessories. The price includes supplying, installing, connecting, laying, drilling &amp; cutting ( concrete wall if required ) and commissioning to complete works as required.</p>	Fan: EA	8		0.00
6	<p><b>Bracket waterproof wall:</b> Supplying &amp; Installing of bracket waterproof wall prewired outdoor lighting luminaries suitable for GLS lamp 230VAC/23 watts complete with all accessories such as base, LED drive &amp; LED bulb, glass, reflector, louvered, includes wiring/connecting with 1.0 kV grade 2*1.5mm<sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A switches with all accessories. The price includes supplying, installing, connecting, laying, drilling &amp; cutting ( concrete wall if required ) and commissioning to complete works as required.</p>	EA	18		0.00
7	<p><b>Exhaust fan:</b> Supplying, fixing and connecting of exhaust fan 240 volt A.C 1400 rpm &amp; 450mm sweep (25cm) includes wiring/connecting with 1.0 kV grade 2*1.5mm<sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A switches with all accessories. The price includes supplying, installing, connecting, laying, drilling &amp; cutting ( concrete wall if required ) and commissioning to complete works as required.</p>	EA	4		0.00
8	<p><b>Electrical bell:</b> Supplying and Installing of electrical call bell 1 ph./5W includes wiring/connecting with 1.0 kV grade 2*1.5mm<sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A door bell switch with all accessories. The price includes supplying, installing, connecting, laying, drilling &amp; cutting ( concrete wall if required ) and commissioning to complete works as required.</p>	EA	2		0.00
9	<p><b>Stainless Steel water cooler:</b> Supplying, installing, commissioning stainless steel electrical water-cooler with three taps (150 liters), water connections includes wiring/connecting with 1.0 kV grade 2*2.5mm<sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with all accessories. The price includes supplying, installing, connecting, laying, drilling &amp; cutting ( concrete wall if required ) and commissioning to complete works as required.</p>	EA	2		0.00

10	<b>Electrical Water Heater :</b> Supply, install, connect, and commission electrical heater 250 Liter capacity 3 kW, with complete fittings & accessories includes wiring/connecting with 1.0 kV grade 3*4 mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with all accessories. The price includes supplying, installing, connecting, laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	EA	2		0.00
11	<b>Power Cable (4X16 mm<sup>2</sup>):</b> Supply, install, test and lay 1.0 kV grade (4X16 mm <sup>2</sup> ) PVC insulated sheath-Armored copper cable.(From the pole network to the main board of the building) laid through PVC pipe ( 4" dia) with cable termination lugs in both sides with all accessories. The price includes supplying, installing, connecting, laying, drilling & cutting ( concrete wall if required ) and commissioning include (cable termination with Cu lugs at both end) to complete works as required.	M	50		0.00
12	<b>Power Cable (4X10 mm<sup>2</sup>):</b> Supply, install, test and lay 1.0 kV grade (4X10 mm <sup>2</sup> ) PVC insulated sheath-Un-Armored copper cable.(From the Main board to the Sub distribution board of the building) laid through surface PVC conduit pipe /cable tray with all accessories. The price includes supplying, installing, connecting, laying, drilling & cutting ( concrete wall if required ) and commissioning include (cable termination with Cu lugs at both end) to complete works as required.	M	60		0.00
13	<b>Sub Distribution Boards ( 12 ways):</b> Supplying, installing, testing and commissioning of for 12 ways, TPN DB (DIN type, horizontal/vertical) with single door complete set to accommodate incoming miniature circuit breaker (MCB) triple pole, 1 x 63 Amps, and outgoing SP MCB 12 x 32 Amps on/in prefabricated MS surface /MS cubical control panel board with neutral strip/bar with all accessories. The price includes supplying, installing, connecting, drilling & cutting ( concrete wall if required ) and commissioning include (cable termination with Cu lugs at end) to complete works as required.	No	3		0.00

1 4	<b>Main Board:</b> Supply, install, test, commission prefabricated Main Distribution Board (MDB) (100cm x 80cm x 40cm) incorporated in DIN bar with following incoming and outgoing as: The price includes supplying, installing, connecting, drilling & cutting ( concrete wall if required ) and commissioning include (cable termination with Cu lugs at both end) to complete works as required.  A - [(1 No.) 100A, 4 pole MCCB type, breaking capacity 25 kA, B- [(4 No.) 63A, 1Ph. MCB type]. C - (1 No.) Voltmeter (0- 400 V) with selector switch (all Ph-Ph and Ph - N) D - (1 Set) Ammeter (0 -200 A), 200/5A with required CTs.. E - (1 No.) Hertz meter (48- 52 )Hz. F - (1 No.) selector switch.(ON & OFF position) G - (3 No.) Indicator lamp 230VAC H - Three-phase, four wires Kilowatt-hour meter . I - (4 strips Copper Bus-Bar 60 cm each length 150A., for three phase lines and neutral ) with separate earth strip,	No	1	0.00
	<b>Subtotal for Electricals Works</b>			<b>0.00</b>
	<b>TOTAL</b>			<b>0.00</b>

Renovation of Al-Muroj Primary School for Girls in Hawija-Kirkuk Governorate GPS (35.358422,43.666958)					
#	<b>General Specification</b>				
	1- All the materials supplied by the contractor must be according to Iraq's standard Specifications				
	2- The contractor must provide samples , catalogues and specification of materials for testing and approval by the site engineer				
	3- Contractor must pay the cost for samples including any laboratory test required				
	4- The price of works includes all job requirements as per Iraq's standard specification.				
	5- The contractor must provide PPE for all laborer's, personnel, engineers and possible visitors to the site				
#	Item Description	Unit	Qty	Price \$	Total \$
	<b>CIVIL WORKS</b>				
1	<b>Site preparation:</b> Supply of materials, tools, machineries and manpower for site preparation by cleaning and removing of all debris, rubble and dumping it to a location approved by local authorities. All needed works to complete the job, shall be included within the price. See scope of work	LS	1		0.00

2	<b>Cement plastering with crack repairing:</b> Supply of materials, tools and manpower to repair wall cracks and remove the damaged cement plastering of external walls & fence by removing the damaged cement plastering minimum 35cm at each side of the crack, then treat the cracks with crack filler approved by manufacture with cement mortar 1:3 and using SBR at a rate of 200gr per m2, later putting a layer of metal chicken mesh 10 cm overlap each side on the area with 3 layers of cement plastering 1:3. All needed works to complete the job, will be included within the price.	m <sup>2</sup>	10		0.00
3	<b>Gypsum plastering with crack repairing:</b> Supply of all necessary materials, tools and manpower to remove the damaged gypsum plastering of internal walls & ceiling and plastering with new gypsum plastering in 2 layers minimum thickness 20mm. The work includes repairing of wall cracks by removing the damaged gypsum plastering 25cm at each side of the crack, then filling the cracks with cement mortar 1:3 and using SBR at a rate of 200gr per m2, later putting a layer of plastic mesh on the area under the gypsum plastering. All needed works to complete the job, will be included within the price.	m <sup>2</sup>	20		0.00
4	<b>Steel door (W1xH2m) one leaf:</b> Supply of materials, tools and manpower to install steel door, with steel plate gauge 18(1.41mm) on double face, using steel tube 40x40x2mm, including a layer of Styrofoam to be placed between the two faces, hinges, doors handles, locks and fixing a stopper on the floor or wall. The price of work includes the painting of steel door using anti-rust and 2 layers of oil paint. All needed work to complete the job will be included within the price. <b>See attached drawings</b>	NO	4		0.00
5	<b>Repair steel doors:</b> Supply of materials, tools, machineries and manpower to repair the damaged steel doors. Price of works shall include door lock, handles, hinges, oil painting and accessories. All needed work to complete the job will be included within the price.	NO	8		0.00
6	<b>Steel main gate repairing:</b> Supply of materials, tools and manpower to repair the damaged steel main gate. Including cleaning and scratching the surface by using steel wire brush before painting, door lock, handles, hinges. Price of the work shall include painting with anti-rust and two layers of oil paints. The price also includes all accessories and dumping of all debris to a site approved by local authorities, in case it is needed. All needed works to complete the job will be included within the price.	NO	1		0.00
7	<b>Repair Steel Windows:</b> Supply of materials, tools, machineries and manpower to repair the damaged steel windows, including welding, painting, anti-insects wire mesh for openable parts and handle. All needed works to complete the job, will be included within the price.	NO	12		0.00

8	<b>Plastic painting:</b> Supply of materials, tools and manpower to paint the exterior walls and fence, with three layers of plastic (silicon water proof) paint. The job includes cleaning the walls, removing the dirt and dust, repairing all the cracks and filling all the holes before painting. All needed works to complete the job, shall be included within the price.	m <sup>2</sup>	1,500		0.00
9	<b>Emulsion painting</b> Supply of materials, tools and manpower to paint the interior walls and ceilings, with 3 layers of emulsion painting. The job includes cleaning the walls and ceilings, removing the dirt and dust, repairing all the cracks and filling all the holes before painting. All needed works to complete the job, shall be included within the price.	m <sup>2</sup>	1,000		0.00
10	<b>Oil painting:</b> Supply of materials, tools and manpower to paint the steel doors, windows, and internal walls with a paint (1.50m height) for skirting using 3 layers of oil paint. The job includes cleaning the walls, removing the dirt and dust, repairing all the cracks and filling all the holes before painting. All needed works to complete the job, shall be included within the price.	m <sup>2</sup>	500		0.00
11	<b>Crystal clear glass 6mm:</b> Supply of materials, tools and manpower to remove the damaged glass and paste and to install new crystal clear glass 6 mm with new paste, dumping of all debris to a site approved by local authorities. All needed work to complete the job will be included within the price.	m <sup>2</sup>	20		0.00
12	<b>Repairing of roofing joints with sealant(mastic):</b> Supply of materials, tools and manpower to remove the defected sealants and fill the joints with joint sealant(mastic). The price includes cleaning the joints before filling with sealants. All needed works to complete the job will be included within the price.	LS	1		0.00
13	<b>Gypsum board Suspended Ceiling :</b> Supply of materials, tools and manpower to install gypsum board suspended ceiling 60x60 cm, 10mm thickness, by using necessary accessories L, T sections, hold down clips, galvanized steel rod 5mm (1.2x1.2m) for fixing with the ceiling by screws. The price includes the removal of old damaged suspended ceiling, dumping of all debris to a site approved by local authorities, in case it is needed. All needed work to complete the job will be included within the price. <b>See attached drawings</b>	m2	85		0.00
14	<b>Billboard</b> Supply of materials, tools and manpower to install billboard made of frame of size 3x1 m, including LED printed sticker. The frame shall be made of square pipe section 4x4cm. Price of the work shall include all requirements to complete the job.	NO	1		0.00
15	<b>Class title:</b> Supply of materials and manpower to install room title name made of plastic sheet size 15x25 cm, using screws to fix. All needed work to complete the job will be included within the price.	NO	10		0.00

1 6	<b>Flag pole :</b> Supply of materials, tools and manpower to install Flag pole of 6 m height by using 2.5" pipe. Price of the work shall include anti rust and three layers oil painting. All needed work to complete the job will be included within the price.	NO	1		0.00
	<b>Subtotal for Civil Works</b>				<b>0.00</b>
	<b>SANITARY WORKS</b>				
1	<b>Water tank:</b> Supply of materials, tools and manpower for installing galvanized water tank of 1400 liters. Cylindrical shape and with plate gauge 16(1.56mm), supported by steel base made with 50mm (2") angle shape, including the connection of the inlet and outlet pipes. The price of work includes all piping and fittings, valves, float valves, accessories. All needed work to complete the job will be included within the price.	NO	4		0.00
2	<b>Roof Drain pipes (4"):</b> Supply of materials, tools and manpower to remove the damaged water roof drain pipes and install new galvanized steel pipes 4" (100mm). Including all connections and needed accessories to fix on roof and walls. All needed work to complete the job will be included within the price. <b>See attached drawings</b>	ml	12		0.00
3	<b>Ceramic wash basin:</b> Supply of materials , tools and manpower to install ceramic wash basin with stand, mixer taps , valves , mirror(60x50)cm and all fittings with complete water connections . All needed work to complete the job will be included within the price.	NO	1		0.00
4	<b>Mixer taps:</b> Supply of materials, tools and manpower to install mixer taps , locks and all accessories with complete water connections. All needed work to complete the job will be included within the price.	NO	1		0.00
5	<b>Taps:</b> Supply of materials, tools and manpower to connect chrome water taps 1/2" or 3/4". Price of the work shall include water connections. All needed work to complete the job will be included within the price.	NO	10		0.00
6	<b>PPR water pipes maintenance:</b> Supply of materials, tools and manpower for inspecting and repairing PPR water pipes Ø1/2" and Ø3/4" (Hot Cold). The price of work includes all pipe fittings, isolation of all hot water pipes by using arm flex and thermal tape, concreting 10cm around the pipes and backfilling. All needed works to complete the job will be included within the price.	ml	50		0.00
7	<b>Eastern toilet with siphon:</b> Supply of materials, tools and manpower to remove the damaged eastern toilet pan and to install new ceramic eastern toilet. Including siphon(flush tank), gully trap Ø100mm (4"), flexible hose and water connections. All needed work to complete the job will be included within the price.	NO	1		0.00



8	<b>Siphon (Flush Tank):</b> Supply of materials, tools and manpower to install siphon, valves and all needed accessories for completing water connections. All needed works to complete the job, will be included within the price.	NO	4		0.00
9	<b>Maintenance of sewerage pipes:</b> Supply of materials, machine and manpower to clean the sewerage pipes net starting from the toilets, manholes to the main septic tank using high pressure air/water. The work includes replace the damaged manhole covers and others with new one. All needed work to complete the job will be included within the price.	LS	1		0.00
10	<b>Water pump:</b> Supply materials, tools and manpower to connect water pump (1hp), Q=3m <sup>3</sup> /Hr., H=60m with, ball valve and all fitting and accessories for connection. The price of works includes all accessories needed, as well as all needed works to complete the job.	NO	1		0.00
<b>Subtotal for Sanitary works</b>					<b>0.00</b>
<b>ELECTRICL WORKS</b>					
<b>Note:- The price include removal and disposal all defective and damage items to designated stores "The following items shall include supply, replace, install, connect and commission all lighting points and power points. All the necessary equipment/items ( if any) must be earthed properly with specific wire/cable size.</b>					
1	<b>Socket Switch(13A):</b> Supplying & fixing of combine 13A, 5 pin universal switch-socket with shuttered & indicator outlet, on PVC molded tough surface box includes wiring/connecting with 1.0 kV grade 3*2.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	24		0.00
2	<b>Light Switch:</b> Supply, install, connect and commission of (230VAC/6A) (single , double , triple and quadruple) light switches includes wiring with 1.0 kV grade 2*1.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with all accessories. The price include supplying, installing, connecting, laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	12		0.00
3	<b>Fluorescent Lighting:</b> Supplying ,Installation, testing and commissioning of prewired fluorescent fittings of all pendant type complete set with tube rod 36W/19mm dia( 4feet) includes wiring/connecting with 1.0 kV grade 2*1.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A switches with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	120		0.00

4	<b>Spot Lighting:</b> Supply, install, connect and commission spot lighting fixtures, LED (240VAC/18 W), complete set with all accessories such as base, LED drive & LED bulb, glass, reflector includes wiring with 1.0 kV grade 2*1.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A switches with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	24		0.00
5	<b>Ceiling Fan:</b> Supply, install, test and commission of ceiling fan (240 volt A.C 1400 rpm,1400mm sweep with 56") , down rod of standard length up to 300mm,sweep 3 Nos.,canopy 2 Nos., condenser and fan body and fan regulator includes wiring/connecting with 1.0 kV grade 2*1.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	9		0.00
6	<b>Bracket waterproof wall:</b> Supplying & Installing of bracket waterproof wall prewired outdoor lighting luminaries suitable for GLS lamp 230VAC/23 watts complete with all accessories such as base, LED drive & LED bulb, glass, reflector, louvered, includes wiring/connecting with 1.0 kV grade 2*1.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A switches with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	18		0.00
7	<b>Exhaust fan:</b> Supplying, fixing and connecting of exhaust fan 240 volt A.C 1400 rpm & 450mm sweep (25cm) includes wiring/connecting with 1.0 kV grade 2*1.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A switches with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	5		0.00
8	<b>Electrical bell:</b> Supplying and Installing of electrical call bell 1 ph./5W includes wiring/connecting with 1.0 kV grade 2*1.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 6 A door bell switch with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	2		0.00

9	<b>Stainless Steel water cooler:</b> Supplying, installing, commissioning stainless steel electrical water-cooler with three taps (150 liters) , water connections includes wiring/connecting with 1.0 kV grade 2*2.5mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with all accessories. The price includes supplying,installing,connecting,laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	2	0.00
10	<b>Electrical Water Heater:</b> Supply, install, connect, and commission electrical heater 250 Liter capacity 3 kW, with complete fittings & accessories includes wiring/connecting with 1.0 kV grade 3*4 mm <sup>2</sup> PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm dia) with 25 A switch with indicator lamp and all accessories. The price includes supplying, installing, connecting, laying, drilling & cutting ( concrete wall if required ) and commissioning to complete works as required.	NO	1	0.00
11	<b>Power Cable (4X16 mm<sup>2</sup>):</b> Supply, install, test and lay 1.0 kV grade (4X16 mm <sup>2</sup> ) PVC insulated sheath-Armored copper cable.(From the pole network to the main board) laid through PVC pipe ( 4" dia) with cable termination lugs in both sides with all accessories. The price includes supplying, installing, connecting, laying, drilling & cutting ( concrete wall if required ) and commissioning include (cable termination with Cu lugs at both end) to complete works as required.	M	55	0.00
12	<b>Power Cable (4X10 mm<sup>2</sup>):</b> Supply, install, test and lay 1.0 kV grade (4X10 mm <sup>2</sup> ) PVC insulated sheath-Un-Armored copper cable.(From the Main board to the Sub distribution) laid through surface PVC conduit pipe /cable tray with all accessories. The price includes supplying, installing, connecting, laying, drilling & cutting ( concrete wall if required ) and commissioning include (cable termination with Cu lugs at both end) to complete works as required.	M	35	0.00
13	<b>Sub Distribution Boards ( 12 ways):</b> Supplying, installing, testing and commissioning of for 12 ways, TPN DB (DIN type, horizontal/vertical) with single door complete set to accommodate incoming miniature circuit breaker (MCB) triple pole, 1 x 63 Amps, and outgoing SP MCB 12 x 32 Amps on/in prefabricated MS surface /MS cubical control panel board with neutral strip/bar with all accessories. The price includes supplying, installing, connecting, drilling & cutting ( concrete wall if required ) and commissioning include (cable termination with Cu lugs at end) to complete works as required.	NO	2	0.00

1 4	<b>Main Board:</b> Supply, install, test, commission prefabricated Main Distribution Board (MDB) (100cm x 80cm x 40cm) incorporated in DIN bar with following incoming and outgoing as: The price includes supplying, installing, connecting, drilling & cutting ( concrete wall if required ) and commissioning include (cable termination with Cu lugs at both end) to complete works as required. A - [(1 No.) 100A, 4 pole MCCB type, breaking capacity 25 kA] B- [(4 No.) 63A, 1Ph. MCB type]. C - (1 No.) Voltmeter (0- 400 V) with selector switch (all Ph-Ph and Ph - N) D - (1 Set) Ammeter (0 -200 A), 200/5A with required CTs.. E - (1 No.) Hertz meter (48- 52 )Hz. F - (1 No.) selector switch.(ON & OFF position) G - (3 No.) Indicator lamp 230VAC H - Three-phase, four wires Kilowatt-hour meter . I - (4 strips Copper Bus-Bar 60 cm each length 150A., for three phase lines and neutral ) with separate earth strip.	NO	1	0.00
	<b>Subtotal for Electricals Works</b>			<b>0.00</b>
	<b>TOTAL</b>			<b>0.00</b>

#### Renovation of Al Hadaf Primary Mixed School in Hawija area -Kirkuk Governorate

##### Scope of Work:

The rehabilitation work includes civil, sanitary and electrical works.

- The civil part of the works includes but not limited to site preparation, concrete works, gypsum plastering, painting, steel doors, sliding steel door, crystal clear glass, repair steel windows, roofing mastic repair, and suspended ceiling as indicated on the BoQ.
- The sanitary works includes but not limited to water tank installation, ceramic lavatory pedestal, siphon, mixer taps, drain pipes, Maintenance of sewerage pipes and water pump as indicated on the BoQ.
- The Mechanical works include but not limited to Submersible pump, electrical panel board and pipe.
- The electrical works includes but not limited to main distribution board, sub distribution boards, circuit and power cable, ceiling fan, fluorescent fixture, switches, brackets, outdoor lighting, and electrical water boiler as indicated on the BoQ.

#### Renovation of Al-Muroj Primary School for Girls in Hawija-Kirkuk Governorate

##### Scope of Work:

The rehabilitation work includes civil, sanitary and electrical works.

- The civil part of the works includes but not limited to site preparation, concrete works, gypsum plastering, painting, steel doors, crystal clear glass, repair steel windows, and suspended ceiling as indicated on the BoQ.
- The sanitary works includes but not limited to water tank installation, ceramic lavatory pedestal, siphon, mixer taps, drain pipes, refurbishment of sewerage pipes and water pump as indicated on the BoQ.
- The electrical works includes but not limited to main distribution board, sub distribution boards, circuit and power cable, ceiling fan, fluorescent fixture, switches, brackets, outdoor lighting, and electrical water boiler as indicated on the BoQ.

## Renovation of Al Nakheel Secondary Mixed School in Hawija

### Scope of Work:

The rehabilitation work includes civil, sanitary and electrical works.

- a. The civil part of the works includes but not limited to site preparation, concrete works (Yard), masonry works, gypsum plastering, painting, sliding steel door, steel doors, repair steel windows, crystal clear glass, Steel stair, as indicated on the BoQ.
- b. The sanitary works includes but not limited to water tank installation, ceramic lavatory pedestal, siphon, mixer taps, eastern toilet with siphon, drain pipes, refurbishment of sewerage pipes and water pump as indicated on the BoQ.
- c. The electrical works includes but not limited to main distribution board, sub distribution boards, circuit and power cable, ceiling fan, fluorescent fixture, switches, brackets, outdoor lighting, and electrical water boiler as indicated on the BoQ.

Completion Period: **50 Days for each location** Agree: Yes: ☐ No ☐

Warranty of Services/equipment one year Agree: Yes: ☐ No ☐

Validity of quotation: 120 days Yes: ☐ No ☐

Acceptance of all provisions of UNDP general terms and conditions Agree: Yes: ☐

Delivery Place: -

**Al-Muroj primary school for Girls** is located in Tal Ali Village, Hawija area;

Coordinates GPS 35.358422 43.666958.

**Al Nakheel Secondary Mixed School** is located in Al-Lazaka Village, Hawija-sub district of Kirkuk Governorate.

Coordinates GPS 35.388768, 43.695851.

**Al Hadaf primary mixed school** is located in Tal Ali Village, Hawija area.

Coordinates GPS 35.331265 43.700663.

Company Stamp and Signature: -----

Official E-mails of the Company: -----

Date: -----

## Compliance Sheet Annex II

The following Technical data shall be furnished and filled by the bidders:

### Mechanical works (Water Cooler)

#	Description	Requested specifications	Bidders Offered specification
1	Type	Free standing Cold Drinking Water Dispenser	
2	Capacity	150 Liter	
3	Cooling water capacity	150 liters per hour up to 5 Degrees:	
4	Material of Tank	Stainless steel 316	
5	Dip Tray	Stainless steel 304	
6	Number of Taps	3 taps	
7	Type of Tap	Push cocks	
8	Compressor		
9	Type	Rotary	
10	Refrigerant Gas	R410a	
11	Voltage	220v -240v/50HZ	
14	Certification of origin	Certification of origin	
15	Submit Manufacturer certification and test reports	Submit Manufacturer certification and test reports.	

### Mechanical works (Water Boiler )

#	Description	Requested specifications	Bidders Offered specification
1	Installation	Vertical /Cylindrical	
2	Water Tank Coating	Enameled	
3	Capacity Range	250 Liter	
4	Nominal power	3 KW / 220v-240v /50HZ	
5	Nominal pressure	0.8 Mpa	
6	In let & out let Decimeter	¾ “ Inch	
7	Electric heating type	Immersion element	
8	Insulation Type	Foam	
9	Protection	Safety Valve ¾”	
10	Submit Manufacturer certification and test reports	Submit Manufacturer certification and test reports	

### Mechanical works – Submersible Pump for deep well.

#	Description	Requested specifications	Bidders Offered specification
	Motor		
1	Make		
2	Rated voltage	380 - 400V	
3	No of phase	3PH with capacitor.	
4	Frequency	50 Hz	



5	Rated speed	2900 RPM	
6	Rated power	5.5 Kwatt	
7	Cos phi power factor	0.80 - 0.90	
8	Start method	Normal Start	
9	Enclosure class	(IEC 34-1)( protect water jet, mud and dust) IP68	
10	Insulation class	F	
11	Motor Protect	Full motor protection	
12	Thermal Protection	Full motor protection	
13	Built-in temperature transmitter	yes	
14	Max ambient temp.	60°C	
15			
	Pump section		
16	Manufacturer/Make:		
17	Type:	Submersible Pump electrically controlled	
18	Pump liquid	Clean water	
19	Rated flow	6 m3/hr.	
20	Rated head	162 M	
21	Pump Body	X 5 CrNi 1810 (AISI 304) Stainless steel	
22	Shaft Materials	Stainless Steel 1.4404	
23	Impeller Material	X 5 CrNi 1810 (AISI 304) Stainless steel	
24	Mechanical seal	Ceramic – graphite - NBR	
25	Efficiency	75-80%	
26	Pressure rating	PN20	
27	Max & min. Liquid temp. range	0-40°C	
28	Pump type	Centrifugal pumps.	