Rehabilitation of Obari Hospital Internal Civil Works Maintenance of Obari General Hospital Statement of Work

Background

The Stabilization Facility for Libya aims to bridge the critical period of transition from initial period of humanitarian relief towards mid- and long-term structural and sector-specific support. It includes time bound quick interventions at the municipality level providing concrete improvements and peace dividends at the community level through rehabilitation of critical infrastructure, building the capacity of local authorities and enhancing local mediation and conflict resolution capacities and processes.

Under this project, UNDP will repair light infrastructure within the conflict affected areas to reverse the physical disruption caused by the conflict and enable the reopening of key services at the municipal level. It will also support quick recovery of businesses that are critical to the survival of whole communities through rehabilitation and provision of equipment. Through these activities it will also aim to boost the capacity of municipalities.

Description of Work

As according to the agreed plan, Municipality of Obari has requested to repair Obari Hospital and the SFL board has approved the rehabilitation work. The building is damaged due to conflict and long period improper maintenance. UNDP engineer has done the estimate based on his assessment. Since it is rehabilitation work, the there is a possibility for variation in the assessment. Since this is a rehabilitation/repair/refixing work, all the works much be similar to the existing building work. So, the bidders are instructed to physically visit to the site, review and quote their price to fix the items mentioned in the BOQ similar to the existing building structure and accessories.

Since the centre is functioning, The contractor have to plan in advance before he quote the price about the working methodology to do the rehabilitation work without disturbing the normal work of the department. The contractor must have minimum BSc qualified Civil engineer with three years experience in building construction throughout the implementation.

1.0 General

- 1.1 The Bill of Quantities shall be read in conjunction with the Conditions of Contract, Specifications, Drawings and Employer's requirements and the Tenderer shall provide against the bill rates or in the prices for the full scope of the work covered by the Contract, no claim or variations shall be considered on account of the Tender's failure to comply with this provision.
- 1.2 The various documents collectively referred to herein as the Bill of Quantities shall jointly constitute the Bill of Quantities referred to in the Conditions of Contract and these preambles are to be read in conjunction with item descriptions in the Bill of Quantities.
- 1.3 Lump Sum values shall not be inserted where unit rates are applicable and the Tenderer shall ensure that identical items occurring in separate bills are not priced at different rates, unless this is the deliberate intention.
- 1.4 The Tenderer shall check against the summaries that each copy of the Bill of Quantities is complete in the number of pages and in the reproduction of each page. The Tenderer's unit rates, prices and extensions shall be entered clearly by hand in black ink.
- 1.5 Unit rates, prices and extensions shall be given in the United state Dollar with cents taken to two decimal places or any other valid currency value taken to two decimal places.
- 1.6 The Bill of Quantities has generally been measured in accordance with the Principals of Measurement (International) for Works of Construction (June 1979), as published by the Royal Institution of Chartered Surveyors with amendments made to suit local practice and conditions. The Quantities inserted against items in the Bill of Quantities are estimated quantities for the Works for the purpose of Tender evaluation, and the Tenderer shall be deemed to have checked and verified such quantities in the compilation of his Tender Price prior to the submission of his Tender. Upon the award of the Contract, the priced Bill of Quantities shall be used solely for evaluating interim payments due to the Contractor, and as a schedule of rates for establishing the value of variations.

- 1.7 The Contractor shall not use the Bill of Quantities for the purpose of ordering materials or arranging Subcontractors. References to these activities shall be the Specifications and Drawings and instructions issued by the Engineer.
- 1.8 All items in the Bill of Quantities shall be deemed to have a monetary value, whether priced or unpriced. In the absence of a unit rate or price against any item, the cost shall be deemed to have been included elsewhere within the Contract Price and the work described to that item shall be executed by the Contractor without any additional payment.
- 1.9 The descriptions in the Bill of Quantities may be incomplete and the Tenderer is referred to the Drawings, Photographs and Specifications for complete information in respect of all the relevant descriptions, quality, dimensions, capacities, design parameters and the like.

2.0 Format of Descriptions

2.1 In addition to common abbreviations the following have been adopted; POM (I), Principal of Measurement (International) for Works of construction dated June 1979 as published by the royal Institution of Charted Surveyors, London

mm- Millimetre

Pr-Pair

M-Linear Meter

No-Number

m²- Square Meter

Kg-Kilograms

m3- Cubic Meter

3.0 Rates

- 3.1 Rates and Prices shall be all inclusive, comprehensive and include the following:
- a) All obligations imposed by the Contract.
- b) Complying in every respect with the requirements and the considerations of the Specifications and Drawings.
- c) All considerations arising from the definitions incorporated in each Preamble section.
- d) Labour for fixing and all associated costs.
- e) Materials and goods and all associated costs
- f) Fitting and /or fixing materials and goods in any position, hoisting to any height.
- g) Use of Scaffolding, plant, equipment and tools.
- h) Any additional labours usually associated with measured items.
- i) All necessary protection of the Works, removing all casings and temporary covering and making good and clearing away upon completion.
- j) All applicable taxes, duties, charges, government levies, landing charges and transport.
- k) Overheads & profit.

4.0 Measurements

- $4.1\,\mathrm{All}$ measurements are net and the rates shall include for all laps, waste, working space and trade or traditional allowances.
- 4.2 The pricing of materials shall take account of the following:
- a) Pricing Preambles, Drawings and specifications shall apply reciprocally between the various sections of the Works, unless otherwise described.
- b) Materials shall be of the specified quality unless otherwise described.
- c) All materials shall be transported, handled, stored and fixed in accordance with the printed instruction or recommendations of their manufacturer or suppliers.

The state of the s	s and temporary coverings and making	good and clearing away upon completion.

5.0 Discrepancies

5.1 Any discrepancy arising in terms of these Preambles and the items contained within the Bill of Quantities must be brought to the attention of the Engineer for his clarification prior to the submission of tender.

EARTH WORKS

- § All quantities for excavation have been measured net with no allowance for increase in bulk or working space.
- § The Tenderer shall allow in this excavation rates for excavating in any material, including running sand and rock, commencing excavation at any depth, excavating below the normal water table, excavating around existing services and mains, supporting the vertical sides of excavations, working space and filling soft spots.
- § Rates and Prices to include,
- a) Excavating by whatever means are necessary including hand excavation in any kind of ground, except rock and boulder rock.
- b) Trimming or grading ground to produce level surfaces or surfaces to falls or slopes.
- c) Ramming and compacting sides and bottoms of excavations and supports to sides.
- d) Keeping free from water including any dewatering as necessary.
- e) Any hand excavation required around existing services or the like.

CONCRETE WORK

- § The rates for all concrete work shall include for the following:
- a) Concrete test cubes and testing costs wherever required.
- b) Mixing, hoisting and placing and compacting on the surfaces of any material or on formwork.
- b) The forming any construction joints, including any required preparation for adjacent pours, together with expansion joints or the like.
- d) Curing and protecting concrete surfaces from harmful weather conditions
- e) All necessary keys to concrete surfaces to receive in-situ finishes.

REINFORCEMENT

- § The rates for bar reinforcement shall include for the following;
- a) Positioning and protecting starter bars, Straightening (If required) cutting to length and bending reinforcement to required shapes.
- b) Cleaning and wire brushing.
- c) Provision of supports (excluding links and stirrups) steel binding wire and approved/proprietary distance pieces.

SHUTTERING

- § The rates for Shuttering or molds as appropriate shall include for the followings;
- a) All cutting and waste including raking curved or circular cutting and notching around pipes, ducting and fittings.
- b) Setting up, strutting and supporting at any height above the structure subject to any limitations imposed by the engineer including all pops, stays struts, wedges and bolts etc.
- c) Carefully coating with shutter oil ensuring that no shutter oil is applied to surfaces of reinforcement.
- d) Rubbing down, filling and making good the surface of concrete after removal of shuttering.

MASONRY

- § The rates for brick walls shall include the following:
- a) Straight raking curved and circular rough or fair cutting, plumbing at angles, cutting and bonding at angles, openings and intersections, building in to and/or against adjacent work, wedging and pinning up to soffits.
- b) All necessary keys for in-situ finishing.
- c) All necessary wall ties, dowels, straps, sleeves. Channels and other like fixings built-in at junctions between brick work and insitu concrete including casting in, drilling, bolting and the like.
- d) All necessary brick work reinforcement at junctions between brick work and walls construction joints or the like and openings.

WOODWORK

- § The rates for wood work shall include for the following;
- a) All joints in the running length including structural joints.
- b) Cutting and fitting to steelwork, trimming around opening, notching, boring and sinking.
- b) Wood work shall be fixed with non-corroding nails and screws and unless otherwise described all plugging and pellating shall be deemed to be included.

FINISHES

- § The rates for all work-in this section shall include for the followings:
- a) Straight, racking, curved and circular cuttings or the like and all consequent wastages.
- b) All setting out temporary rules, screeds, templates and supports.
- c) Curing and cleaning off/down upon completion.
- d) All labours and making good around pipes, ducting and fittings and the like

ITEM NO	JOB DESCRIPTION	- Bycon		Unit Price	
Α	Preliminary Works	UNIT	luantity	USD	Amount in USI
A1	The contractor shall provide and maintain temporary sheds for the storage of materials, tools, and tackle and the use of all persons employed on the Site. Those used for the storage of cement and other perishable materials and the like are to be weatherproofed at all times	Item	1		
A2	Dismantling damaged doors (any type) and removal of surplus as directed.	Nos	93		
A3	Making a door opening in existing wall and removal of surplus as directed.	M ²	1,5		
В	Concrete Works	IVI	1,5		
	Rate shall include for form work depositing, handling, hoisting into				
	position, vibrating, curing etc. and making good after removal of				
	formwork etc.	Note			
	Reinforcements are paid separately unless otherwise specified in the item				
	Rate shall include for supplying and laying of gauge 1000 polythene	Note			
	on ground, where concrete is in direct contact with ground, before pouring concrete unless other wise measured separately.	Nese			
	supply and place reinforced concrete grade C35 (for roof slab	Note			
B1	Newton / mm2) same as existing steel with adequate laps for connection and space as same as excising directed by engineer and, plywood formwork. Further the rate include for supplying, cleaning, cutting, bending, fabricating, placing and the provision of all necessary temporary fixings and supports of reinforcement. including binding wires, bends, hooks, tying wires, chairs, distance blocks, steel separators/spacers	ltem	1		
С	Doors, Windows and Metals				
	The work shall include supply, fabricate and installation of doors, windows, made out of approved quality timber by the engineer to be finish as per the respective specification and the existing doors and window				
	The contractor shall submit shop drawings for the approval of the	Note			
	Architect & Engineer, prior to fabrication.	Note			
	The contractor shall refer to all relevant specifications and drawings prior to pricing and it shall be his responsibility to complete the said works to the entire satisfaction of the Engineer at no additional cost.	Note			
	All samples shall be provided for Engineer's approval prior to purchase of material.				
	Where swing doors has been specified prices shall include for	Note			
	provisions of floor hinges.	Note			
	Rates shall include;				
	Hoisting and fixing in position, drilling and making good.	Note	-		
	Brass Nails, Brass screws, glue, rawl plugs etc.	Note			
	Framing together all work in accordance with the best practices.	Nes			
	Priming backs & applying two coats of an approved wood	Note			
	preservative before fixing. Rate to include for providing sundry items related to the door &	Note			
	windows like Glass blocks etc where necessary as a Architectural			7-1-1	
	Feature to the door or window.	Note			
	Rate shall include for 5mm thick clear float glass/ wired glass				
	/tinted glass /translucent glass as appropriate to suit the respective doors and windows as as similar to the existing doors and windows.	Note			
II SELECTION	Rates shall include for fixing timber frame, door sash / window	.tote			
	casement brass fixing screws, lock sets with 3 keys manufactured in Europe to be used on all doors.				

	The sizes as existing doors and windows and description of Bill of Quantities are finished sizes and subject to same permitted in the	3			
	Quantities are finished sizes and subject to same permitted in the	1			
	The contractor shall check the measurement of openings physically				
	at the existing doors and windows before fabricating the doors &	1			
	windows.				
	Door / window frames are twice rebated and backed as		-		
	appropriate. The sizes are as existing doors and windows.	Ness			
	All the locks shall be ISO certified or approved equivalent supplied	Note	+		
	by authorized dealer appointed by the proved equivalent supplied				
	by authorized dealer appointed by the manufacturer & approved				
	by the Engineer.	Note			
	All ironmongery shall be heavy quality brass of approved European				
	manufacture subject to approval of the Architect, ironmongery				
	samples should be submitted for approval.	Note			
-	Painting / Final Finish				
	Unless otherwise stated all surface of timber Doors & Windows and				
	casements and door sashes shall be applied with two coat of				
	wood preservative, two coats of primer, two coats of wood sheen				
	spray paint as similar to the existing doors and windows.				
	Supply and fix interior flush door, 920 X 1930 mm size without frame,				
	constructed of high density 20 mm hollow particleboard core, 10 mm				
C1	white melamine faced chipboard (MFC) on both sides glued and				The same
CI	pressed to the core, stiles and rails from pine wood grade 1,	Nos	85		
	comprising aluminium protection edge on all door perimeter and				
	door lock, door handle iron monger, door stopper.				
	A CONTRACTOR OF THE PROPERTY O				
	Supply and install exterior single leaf aluminium door, 1000 X 2000			41,18	
	mm size without frame, constructed of anodized extruded aluminium				
	profiles, 60x40x3 mm for side stiles, top and bottom rails, 120x6mm				
C2	plate middle rail with built in aluminium handle on both sides, full	M ²	7		
	panel 4 mm thick clear glass titer, rubber sealant, comprising a door				
	lock, iron mongery, door stopper. The door and accessory must be				
	similar to the existing doors.			10	
C3	Supply and fix wooden doors' lock with handle.	Nos	313		
C4	Supply and fix plastic doors' lock with handle.	Nos	143		
C5	Supply and fix aluminium Windows's handle.	Nos	543		
C6	Supply and fix wooden doors' lock cylinder.	Nos	100.0000		
C7	Supply and fix plastic doors' lock cylinder.	300	75		
C8	Supply and fix aluminium doors' lock cylinder.	Nos	88		
	Repairing the existing aluminium doors and windows by replacing the	Nos	35		
C9	accessories and all required works.	M ²	75		
	supply and install corridor suspended as the second	08.88			
C10	supply and install corridor suspended ceiling of laminated gypsum				But Line
C10	boards according to specifications and instructions of supervising	M2	8		
D	engineer.				
	Paints Rate shall include for properation of our facilities.				
	Rate shall include for preparation of surface cleaning down,		1		
	smoothing, knotting, puttying, stepping etc. protection of floors and				
	fitting, removing & replacing door and window, furniture, and				
	cleaning windows etc. Upon completion.	Note			
	Paint shall be from approved colour with approved manufacturer.				
	Internal painting for internal walls one under coat primer and min. 2-	Note			
D1	coats of paint with all required works.	M^2	14700		
	External painting (with recistance to automate and		-		
D2	External painting (with resistance to external conditions) for exterior				
-	walls and fence one under coat primer and min. 2-coats of paint with all required works	M^2	5430		

E	Insulation Works			
E1	Supply and install granular top surface 4mm thick bituminous sheet for roof water proofing. The price shall include removal of old layers, supplying, installing, workmanship, prime coat, overlapping and water testing for the roof after completing the works and making good with all required works for roof opening and leaking joints.	M ²	22	
E2	Supply and fix ceiling thermal insulation cover from fibber glass (similar to the damaged one).	M2	10	
E3	Repairing the exiting water insulation layer around the roof top lighting.	Nos	39	
F	Plumbing Works			
	Plasticized polyvinyl chloride (uPVC) pipes shall be used in the plumbing installation and they must confirm in every respect to the requirements of BS 4514.	Note		
	All fittings and pipe specials used in the plumbing installation shall be suitable and compatible with all respects to the pipe line to which fittings and specials are fixed.	Note		
	All sanitary fittings & fixtures shall be ISO certified and approved by engineer			
	Rates for plumbing work shall include for:-	Note	-	
	Complying with the relevant British /ECor any other standard as given under the specifications and with the regulations of the Local Authority and or any other relevant authorities.	Note		
	Cutting and waste of pipes etc., and joining pipes.	Note		
	All specials such as elbows, bends, tees, junctions, plugs, reducers and similar pipe fittings except for valves which will be measured separately. Connecting pipes to sanitary fixtures and appliances.	Note		
	Necessary screws, nails sockets, connection back nuts standard pipe	Note	-	
	fixing or supporting clips, saddles, brackets, holder bats, straps etc.	Note		
	Connecting of different types of pipes.	Note		
	Testing and disinfection after completion. Excavation, backfilling, disposal of surplus soil for items which were	Note		
	specifically mentioned. Rates for sanitary fittings shall include for:-	Note		
	Fittings such as taps, waste water outlet, internal overflows etc. and supporting brackets, incidental materials for fixing, unless			
	otherwise measured separately. Assembling, jointing together fixing components parts, and jointing to pipes including necessary coupling and for leaving perfectly clean and in perfect working order on completion.	Note		
	Jointing and connecting of pipes to sanitary fittings.	Note	-	
	Testing and commissioning of the installation.	Note		
	Making good of the work disturbed.	Note		
	Submitting samples for the approval of the Engineer.	Note		
	Protecting the works.	Note		
	Rates for drainage work shall include for :-			
-	Laying of pipes to falls.	Note		
	Excavation, backfilling, disposal of surplus soil	Note		
	All pipe specials such as bends, junctions, elbows, tees etc. Connection to sides of manholes etc.	Note		
	Providing sleeves etc., when pipes pass through walls, foundations etc.	Note		
	Giving notices, obtaining permits, paying fees, fixing, testing and commissioning etc.	Note		
1	Supply and fix water mixer hose	Nos	40	
3	Supply and fix WC cleaning water hose	Nos	15	
4	Supply and fix western WC flush set	Nos	25	
5	Supply and fix western WC angle valve Supply and fix wash basin water mixer	Nos	10	
6	Supply and fix wash basin water mixer Supply and fix wash basin water waste trap	Nos	24	
7	Supply and fix wash basin water waste trap Supply and fix wash basin water supply hose	Nos	11	
8	Supply and fix complete western WC with all fittings and accessories.	Nos	2	
9	Supply and fix shower mixer.	Nos	4	
	A CONTRACT OF THE PROPERTY OF	1103	4	
10 11	Supply and fix water top of 1/2" size. Supply and install PPR pipes of 1/2" size.	Nos	5	

G	Electrical Works					
	Unless otherwise stated, Rates in Bill of Quantities shall include all					
	necessary materials Cables, conduits, PVC sunk box, bulbs, switches				18 3	
	etc.) and labour required to complete the electrical installation to					
	good working order.	Note				
	Except where specifically stated, all costs associated with provision					
	of all holes, openings, chases, ducts and other builders' work		-	250		
	required for installation and make them good, shall be included in					
	the rates.	Note				
	Testing and commissioning of the electrical installation is to be	11 - 61				
	carried out by the contractor and Cost of such testing and reports					
	to be included in the rates unless otherwise mention separately.					
		Note				
	All types of fittings, materials, painting and finishes shall be					
	approved by the Engineer prior to installation.	Note				
G1	Supply and fix electrical air circuit breakers, 3 phase voltage, of 3 pole	Nos	5	100		
-	and 25 A rating and shall conform to IEC 60947-2	91/2/29/20				
G2	Ditto, of 3 pole and 32 A rating	Nos	5			
G3 G4	Ditto, of 3 pole and 40 A rating	Nos	5			_
G5	Ditto, of 4 pole and 25 A rating	Nos	5			
G6	Ditto, of 4 pole and 40 A rating Ditto, of 4 pole and 50 A rating	Nos	5			770-
G7	Ditto, of 4 pole and 63. A rating	Nos	5			_
G8	Ditto, of 4 pole and 80 A rating	Nos	5		-	_
G9	Ditto, of 4 pole and 100 A rating	Nos	5		-	
G10	Ditto, of 4 pole and 160 A rating	Nos	5		+	
	Supply and fix fluorescent lighting fixture, 4 x 20 watts, (60 cm X60	Nos	5		+	
G11	cm).	Nos	8			
G12	Supply and fix lighting tube lamp, 20 watts.	Nos	60		+	
G13	Supply and fix lighting tube lamp, 40 watts.	Nos	80			
G14	Supply and fix air extractors for mortuary room.	Nos	2			
G15	Supply and fix electrical control switch, 63 Amps., for mortuary room.	Nos	1			
		1103				_
G16	Supply and install electrical cable, 3 x 8 mm ² for mortuary room.	L.M	45			
н	Electromechanical Works					
H1	Re-fix the central HVAC gas pipes in their places in ceiling according to specifications and instructions of supervising engineer.	Item	1			
	supply and install metal air duct (similar to the damaged one) for					
H2	supply and install metal air duct (similar to the damaged one) for	1.84	2			
H2	central HVAC system according to specifications and instructions of	L.M.	3			
	central HVAC system according to specifications and instructions of supervising engineer.					
НЗ	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps.	Nos	4			
	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors.					
H3 H4	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works	Nos	4			
H3 H4	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works Supply and fix 1.5" and 5.5 HP stainless steel vertical multi stage	Nos	4			
H3 H4	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works Supply and fix 1.5" and 5.5 HP stainless steel vertical multi stage water pumps, continuous duty type, with delivery (Q) up to 24 m3/h,	Nos	4			
H3 H4	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works Supply and fix 1.5" and 5.5 HP stainless steel vertical multi stage water pumps, continuous duty type, with delivery (Q) up to 24 m3/h, up to 65 m head, three-phase 60 Hz power supply, of in-line round	Nos	4			
H3 H4 I	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works Supply and fix 1.5" and 5.5 HP stainless steel vertical multi stage water pumps, continuous duty type, with delivery (Q) up to 24 m3/h, up to 65 m head, three-phase 60 Hz power supply, of in-line round flanges, 4 impellers, equipped with 4 KW IE3 standard motor. The	Nos Nos	12			
H3 H4 I	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works Supply and fix 1.5" and 5.5 HP stainless steel vertical multi stage water pumps, continuous duty type, with delivery (Q) up to 24 m3/h, up to 65 m head, three-phase 60 Hz power supply, of in-line round flanges, 4 impellers, equipped with 4 KW IE3 standard motor. The manufacture must have ISO certificate for production and have proof	Nos Nos	12			
H3 H4 I	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works Supply and fix 1.5" and 5.5 HP stainless steel vertical multi stage water pumps, continuous duty type, with delivery (Q) up to 24 m3/h, up to 65 m head, three-phase 60 Hz power supply, of in-line round flanges, 4 impellers, equipped with 4 KW IE3 standard motor. The manufacture must have ISO certificate for production and have proof for the spare parts availability in Libya.	Nos Nos	12			
H3 H4 I	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works Supply and fix 1.5" and 5.5 HP stainless steel vertical multi stage water pumps, continuous duty type, with delivery (Q) up to 24 m3/h, up to 65 m head, three-phase 60 Hz power supply, of in-line round flanges, 4 impellers, equipped with 4 KW IE3 standard motor. The manufacture must have ISO certificate for production and have proof	Nos Nos	12			
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H3 H4 I	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works Supply and fix 1.5" and 5.5 HP stainless steel vertical multi stage water pumps, continuous duty type, with delivery (Q) up to 24 m3/h, up to 65 m head, three-phase 60 Hz power supply, of in-line round flanges, 4 impellers, equipped with 4 KW IE3 standard motor. The manufacture must have ISO certificate for production and have proof for the spare parts availability in Libya. Supply and fix electrical fuses of 10 Amps. Supply and install electrical wires of 10 mm².	Nos Nos Nos	4 12 6 100 45			
H3 H4 I	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works Supply and fix 1.5" and 5.5 HP stainless steel vertical multi stage water pumps, continuous duty type, with delivery (Q) up to 24 m3/h, up to 65 m head, three-phase 60 Hz power supply, of in-line round flanges, 4 impellers, equipped with 4 KW IE3 standard motor. The manufacture must have ISO certificate for production and have proof for the spare parts availability in Libya. Supply and fix electrical fuses of 10 Amps. Supply and install electrical wires of 8 mm².	Nos Nos Nos L.M	6 100 45 65			
H3 H4 I I1	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works Supply and fix 1.5" and 5.5 HP stainless steel vertical multi stage water pumps, continuous duty type, with delivery (Q) up to 24 m3/h, up to 65 m head, three-phase 60 Hz power supply, of in-line round flanges, 4 impellers, equipped with 4 KW IE3 standard motor. The manufacture must have ISO certificate for production and have proof for the spare parts availability in Libya. Supply and fix electrical fuses of 10 Amps. Supply and install electrical wires of 8 mm². Supply and install electrical wires of 5 mm².	Nos Nos Nos L.M L.M	6 100 45 65 55			
H3 H4 I I1 I1 I2 I3 I4 I5	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works Supply and fix 1.5" and 5.5 HP stainless steel vertical multi stage water pumps, continuous duty type, with delivery (Q) up to 24 m3/h, up to 65 m head, three-phase 60 Hz power supply, of in-line round flanges, 4 impellers, equipped with 4 KW IE3 standard motor. The manufacture must have ISO certificate for production and have proof for the spare parts availability in Libya. Supply and fix electrical fuses of 10 Amps. Supply and install electrical wires of 10 mm². Supply and install electrical wires of 8 mm². Supply and install electrical wires of 5 mm². Supply and install electrical wires of 5 mm².	Nos Nos Nos L.M L.M L.M	6 100 45 65 55 80			
H3 H4 I I1 I1 I2 I3 I4 I5 I6	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works Supply and fix 1.5" and 5.5 HP stainless steel vertical multi stage water pumps, continuous duty type, with delivery (Q) up to 24 m3/h, up to 65 m head, three-phase 60 Hz power supply, of in-line round flanges, 4 impellers, equipped with 4 KW IE3 standard motor. The manufacture must have ISO certificate for production and have proof for the spare parts availability in Libya. Supply and fix electrical fuses of 10 Amps. Supply and install electrical wires of 10 mm². Supply and install electrical wires of 8 mm². Supply and install electrical wires of 5 mm². Supply and install electrical wires of 4 mm². Supply and install electrical wires of 4 mm².	Nos Nos Nos L.M L.M L.M Nos	4 12 6 100 45 65 55 80 1			
H3 H4 I I1 I1 I2 I3 I4 I5 I6	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works Supply and fix 1.5" and 5.5 HP stainless steel vertical multi stage water pumps, continuous duty type, with delivery (Q) up to 24 m3/h, up to 65 m head, three-phase 60 Hz power supply, of in-line round flanges, 4 impellers, equipped with 4 KW IE3 standard motor. The manufacture must have ISO certificate for production and have proof for the spare parts availability in Libya. Supply and fix electrical fuses of 10 Amps. Supply and install electrical wires of 10 mm². Supply and install electrical wires of 8 mm². Supply and install electrical wires of 5 mm². Supply and install electrical wires of 4 mm². Supply and fix electrical control switch, 60 Amps. Supply and fix non-return valve of 2" size.	Nos Nos Nos L.M L.M L.M Nos	4 12 6 100 45 65 55 80 1 3			
H3 H4 I I1 I1 I2 I3 I4 I5 I6 I7 I8	central HVAC system according to specifications and instructions of supervising engineer. Maintenance of central HVAC system diesel pumps. Maintenance of central HVAC system air extractors. Water Pumping Station Works Supply and fix 1.5" and 5.5 HP stainless steel vertical multi stage water pumps, continuous duty type, with delivery (Q) up to 24 m3/h, up to 65 m head, three-phase 60 Hz power supply, of in-line round flanges, 4 impellers, equipped with 4 KW IE3 standard motor. The manufacture must have ISO certificate for production and have proof for the spare parts availability in Libya. Supply and fix electrical fuses of 10 Amps. Supply and install electrical wires of 10 mm². Supply and install electrical wires of 8 mm². Supply and install electrical wires of 5 mm². Supply and install electrical wires of 4 mm². Supply and install electrical wires of 4 mm².	Nos Nos Nos L.M L.M L.M Nos	4 12 6 100 45 65 55 80 1			

Renovation of Obari General Hospital

Summary

Deatailss	Unit Cost	Total Cost in USD
1 Renovation of Obari General Hospital		
Total		