

HCR/IRQDHK/2023/RFP-06
Bill Of Quantities

1	All the work items should be done according to IRAQI General Technical Specifications (IGTS) that complies with ACI-Code 2005 applied according to the instructions of the supervisor Engineer.
2	All materials must be NEW from best type, approved by supervisor Engineer.
3	All construction materials should be tested according to Construction Works Specification by NCCL (1981 edition), and (ASTM) specifications for water supply pipes.
4	The contractor Shall provide samples for all materials to be used in the project prior to using them in order to get approval from supervisor Engineer.
5	It is the duty of the contractor to check the designs for accuracy and adequacy, otherwise the Employer take no risk of the contractors failure to accomplish the work.
6	The contractor shall provide all required manpower ,transportation ,equipment ,tools ,machinery ...etc. unless otherwise stated below.
7	In case of any difference between BOQ, designs and/or drawings; the instruction of supervisor Engineer will govern.
8	After all works finished the site must be cleaned from all debris and neglected materials must be removed to any where defined by municipality .
9	DINING FACILITIES AND CATERING FOR THE ENGINEER : Dining and catering facilities for Engineers on site is under the responsibility of the contractor. The unit price shall be considered for the Engineers with for whole duration of the Project. The Contractor, constructing and operating mess hall are also included in this Unit Price. All facilities and mess hall (including air-condition, electricity and water) shall be constructed in a proper place.
10	PREFABRICATED UNITS FOR THE ENGINEER : Constructing or providing caravans (with all necessary items) for Site Engineers' Office, furniture and office equipment, including consumable materials, stationary , internet, maintenance of office and all requirements according to the request of Engineer including the landscape, park areas and etc. Supplying electricity, heating features and water as well as well air-conditioning till the end of Project are also included in the Unit Price.

A-	Bill of Quantity for PHCC Building		
No.	Item Description	Unit	Qty.
1	<p>Demarcation, Clearing and Grubbing up Plots: Providing survey equipment and instrument (Total station is recommended) to demarcate PHCC, fence as shown in the drawings and to be used throughout the construction duration. The contractor shall demolish, break up and remove all temporary buildings, structures and superficial obstructions on the Site to place indicated by camp manager, , repairing the damages caused by works for the existed infrastructures (Electricity poles, wires, sewerage pipe, water pipes, etc...) (according to the requirement of Section R2 of S.O.R.B. and I.G.T.S section 200). The works include removing of topsoil with a depth not less than 25 cm for all types of soil (clay, rocky, Asphalt, concrete) . The price includes cleaning the site from the debris as per instruction of engineers representative to a location identified by the local municipality, opening the access road to location of construction. Furthermore, for the area contains high moisture percentage, the work includes replacing of the soil by a boulder (oversize aggregates) including construction of the required filter with dimension 50 X50 cm cross section with all the works should be conducted according to instructions of supervisor Engineer</p>	m ²	2,250.00
1.1	<p>Excavation works: Provision of materials, manpower and equipment to excavate the foundation of the all building (as Box) , according to the measurements described in the drawings for sections and according to SORB R5, the work includes:</p> <ol style="list-style-type: none"> 1. Excavation in (all types of soil, concrete and rocky soil). 2. Compacting subgrade. 3. Back filling by boulders (over size) for the places required to be filled: for the areas with high water content, or poor quality if soil, minimum with 50 cm depth. 4. A compacted layer of sub-base type A with 15 cm thickness under the concrete layer. 5. Backfilling the sides with compacted sub-base type B. 6. Repairing all accrued damage to existed infrastructures due to implementation. 7. Demarcation, surveying, removing of the debris to the outside of the camp, to an area allocated by municipality, cleaning the existing box culverts in six locations under main road. <p>All the works should be done according to drawings, technical specifications and instruction of supervisor Engineer.</p>	m ³	1,200
2	<p>Backfilling Works: Provide materials, machines and all other requirements to backfill PHCC, behind fence and open area (yard) for building using clean soil by layers not more than 25 cm, with good compaction according to R5 S.O.R.B, the final layer to be a well compacted layer of sub-base 20 cm, after compaction according to R6 S.O.R.B with variable width indicated in cross section drawings for sections, . The works include spreading the final layer by Chlorine or equivalent materials ,watering (moisturizing) and compaction of and all works should be according to I.G.T.S section 300 supervisor Engineer instructions.</p>	m ³	1,300.00
3	<p>Concrete Work: All concrete works includes provision of materials of materials (sand, gravel, cement, steel of grad 60, plastic sheet (nylon), water, curing, shuttering (faire face with steel columns and supports)... etc.),vibrators, painting adhesive materials between columns, beams and slabs with finishing , manpower and equipment. All work should be done according to I.G.T.S section 600 and instructions of supervisor Engineer.</p>	-	-

3.1	Lean concrete : Supply material and cast lean concrete , 8 cm thickness, (100 Kg/cm ²) under the main concrete . According to specification and instruction of supervisor Engineers.	m ²	470.00
3.2	Reinforced Concrete for Foundation : Supply material and cast Reinforced concrete , different width , (210 Kg/cm ²), for foundation of walls and columns bases including reinforcement of steel bars, shuttering works , grading and leveling of the foundation According to specification, drawings and instruction of supervisor Engineers.	m ³	190.00
3.3	Ordinary Concrete for foundation: Supply material and cast ordinary concrete 25 cm thickness, (210 Kg/cm ²) for foundation of fence and partition walls the final surface should be smooth including layer of crushed stone 10 cm, shuttering works were needed, . According to specification ,drawings and instruction of supervisor Engineers.	m ³	26.00
3.4	Reinforced Concrete for Columns : Supply material and cast Reinforced concrete for the columns under and above DPC, Tie beam, beams, Lintels, walls of X-ray rooms, (250 Kg/cm ²), including reinforcement steel bars to be bent 80 cm to slab reinforcement, shuttering works , grading and leveling of the caste concrete. According to specification ,drawings and instruction of supervisor Engineers.	m ³	285.00
3.5	Reinforced Concrete for slab : Supply material and cast Reinforced concrete for the slabs, stairs, parapet, and decorations parts (210 Kg/cm ²),18 cm thickness, including layer of Styrofoam 2.5 cm high density (35kg/m ³) reinforcement steel bars, shuttering works , grading and leveling of the caste concrete. According to specification ,drawings and instruction of supervisor Engineers.	m ³	238.00
3.6	Ordinary Concrete for walkways: Supply material and cast ordinary concrete 10 cm thickness, width 1.2 m, (210 Kg/cm ²) for walk ways ,path and ramps the final surface should be smooth including layer of compacted crushed stone 10 cm, shuttering works were needed. The work include leveling of the grounds, excavation for foundation (40x20x30) cm, casting ordinary concrete 20 cm thickness on 10 cm compacted crushed stone, building by solid concrete blocks (15x20x40) cm ,20 cm thick. with cement sand mortar, back filling by compacted clean soil in layers, plastering by cement sand mortar and expansion joint each 4 m length . According to specification ,drawings and instruction of supervisor Engineers.	m.l	200.00
3.7	Expansion Joints : Supply material and construct expansion joints between walls, columns and slabs, including reinforced concrete parapets ,roofs and beams and others concrete, Styrofoam 2.5 cm thick, Aluminum plate 1.5 mm thick.,20 cm width to cover all horizontal and vertical joints . According to specification and instruction of supervisor Engineers. Note : the measurement will be from Top only.	m.l	36.00

3.8	<p>Casting concrete for streets and Garages: Supply material and cast ordinary concrete 150 mm thickness (210 Kg/cm²) with, for the streets, Garages and ramps, the work includes:</p> <p>A. Preparation of the site including removing of existing concrete, grading and levelling the floor.</p> <p>B. Laying a BRC 20x20 cm, 5 mm mesh.</p> <p>C. laying a layer of sub base 250 mm thick, after compaction.</p> <p>D. watering (moisturizing) and compaction of sub-base course layer not less than 95% of MDD and all works should be according to R 6 S.O.R.B and site engineer instructions.</p> <p>E. using the mechanical machine (helicopter) for smoothing the surface concrete.</p> <p>F. Making expansion joints by using the cutter machine every 4mx4m.</p> <p>G. Having proper slops and ramps to make accessibility for the persons with specific needs (Slope = 6-8%)</p> <p>All the works to be done according to the specifications and instruction of supervising Engineers.</p>	m ²	300.0
3.9	<p>Ordinary Concrete for floors: Supply material and cast ordinary concrete 10 cm thickness, (210 Kg/cm²) for floors under mosaic ,Shtiger and ceramic tiles including layer of crushed stone 10 cm, . According to specification ,drawings and instruction of supervisor Engineers.</p>	m ²	1,000.00
4	<p>Building works: All works includes provision of materials of materials (sand, blocks, cement, curing, pointing works , manpower , equipment and other requirement of works. All work should be done according to I.G.T.S section 500 and instructions of supervisor Engineer.</p>		
4.1	<p>Concrete blocks work under DPC: Provide materials and all requirements for building by solid block (15x20x40) cm, required height, (40-100) cm thickness, using cement sand mortar 1:3, filling spaces between walls for buildings, fence and retaining walls. The works includes Styrofoam 2.5 cm thickness, PVC pipes 4 " for retaining walls every 5 m. All the works should be conducted according to instructions of supervising Engineer.</p>	m ³	120.00
4.2	<p>Concrete blocks work above DPC : Provide materials and all requirements for building walls by Hollow concrete block (20x20x40) cm, height to the roof, 20 cm thickness, using cement sand mortar 1:3, filling spaces between joint (horizontal and vertically) for interior walls . All the works should be conducted according to IGTS and instructions of supervising Engineer.</p>	m ²	1,200.00
4.3	<p>Concrete blocks work above DPC : Provide materials and all requirements for building walls by Hollow concrete block and Styrofoam (20x25x40) cm, height to the roof, 25 cm thickness, using cement sand mortar 1:3, filling spaces between joint (horizontal and vertically) for Exterior walls . All the works should be conducted according to IGTS and instructions of supervising Engineer.</p>	m ²	640.00
4.4	<p>Concrete blocks work above DPC: Provide materials and all requirements for building by solid block (15x20x40) cm, required height, (20) cm thickness, using cement sand mortar 1:3, filling spaces between walls for fence and roof parapet walls height 80 cm.t. All the works should be conducted according to instructions of supervising Engineer.</p>	m ²	570.00
5	<p>Metal works: Provide materials, labors, equipment, machines and all requirements according to IGTS and instructions of supervising Engineer.</p>		

5.1	Aluminum Windows: Provide and install reinforced Aluminum windows, the standard cross-section G-60 best available type ,double glass 6 mm and the filters between 4 mm . The price includes supplying and fixing of all required, washers, locks, hinges, handles, anti-fly mesh and opening holes for discharging water .All the works should be conducted according to instructions of supervising Engineer.	m ²	90.00
5.2	Iron Doors: Provide and install iron hinged door with different dimension made of square pipe 1.5" X 1.5" with thickness between (1.8 to 2)mm. Covered with 1.25mm (thickness) iron plate from both side. The frame made of 2"x2" 3mm thickness iron angle or double charchove ((25x5) cmx3 mm). The price includes protecting all iron surface by anti-rust paint, finished with two coat of oil base paint. Moreover, supplying and installing all required parts like handles, locks(switch Italian or equivalent), three 8cm hinges, slide locks (Sakata),...etc. All the works should be conducted according to instructions of supervising Engineer.	m ²	22.00
5.3	Aluminum Doors: Provide and install reinforced Aluminum doors, the standard cross-section G-60 best available type ,double glass tinted wooded 6 mm and the filters between 4 mm . The price includes supplying and fixing of all required, washers, locks, hinges, handles switch best type, anti-fly mesh and opening holes for discharging water .All the works should be conducted according to instructions of supervising Engineer.	m ²	65.00
5.4	Supply and install Rail: Supply materials, labors and equipment to install rail between the fence and other area (45 cm width), from steel pipe 5x5 cm,1.8 mm with 30 cm vertical partition interval . The price includes protecting all iron surface by anti-rust paint, finished with two coat of oil base paint. All the works should be conducted according to instructions of supervising Engineer.	m.l	50.00
5.5	Supply and install Counter: Supply materials, labors and equipment to install aluminum counter covered the top by marble (95cm height,75 cm width) with 7-marble wash basin and stainless steel mixture good quality with all accessories, supply and installing aluminum doors and bench inside each one .All the works should be conducted according to instructions of supervising Engineer.	m.l	7.00
5.6	Aluminum Hand Rail works: Supply materials, tools and manpower for Aluminum hand rail Dia.5.5 cm,2 mm thickness for the top raw and column (on each trip of stairs) , and the main columns at the beginning, end of each stair. The works include supply and install aluminum pipe horizontal 4-rows of dia.2.5 cm , all the work should be done according to the drawing and instructions of supervisor Engineer.	m.l	10.00
6	Carpentry works: Provide materials, labors, equipment, machines and all requirements according to IGTS and instructions of supervising Engineer.		
6.1	Carpentry doors works: Supply materials, tools and manpower for installing wood doors (1.0x2.3) m,(4-5) cm thickness for the rooms, the price include wood door double face from teack wood 4 mm, and the frame from teack block wood 7 cm thick, width from (25-30) cm , Moreover, supplying and installing all required parts like handles, locks(switch Italian or equivalent), three 8cm hinges, glass 6 mm ,...etc., painting the doors by Alcoholic ,thinner and oil paint .all the work should be done according to the drawing and instructions of supervisor Engineer.	m ²	56.00

6.2	Carpentry doors for X-ray room: Supply materials, tools and manpower for installing double slide wood doors (MDF) Italian type (2.0x2.3) m,(4-5) cm thickness, frame from teack block wood 7 cm thick, width from (25-30) cm covered by a layer of lead apron plate thick 0.5 mm for the X-ray room, the price include supplying and installing all required parts like handles, locks(switch Italian or equivalent), three 8cm hinges, glass 6 mm ,..etc., painting the doors by Alcoholic ,thinner and oil paint .all the work should be done according to the drawing and instructions of supervisor Engineer.	No.	1.00
6.3	window for X-ray room: Supply materials, tools and manpower for installing Aluminum windows size (0.6x0.6) m covered by layer of lead apron plate thick 0.5 mm for the X-ray room, the price include supplying and installing all required parts like handles, locks, hinges, glass 6 mm ,..etc., .all the work should be done according to the drawing and instructions of supervisor Engineer.	No.	1.00
7	Tilling floor works: Provide materials, labors, equipment, machines and all requirements according to IGTS 600 ,900 and instructions of supervising Engineer.		
7.1	Tilling works: supply materials, labors and equipment for tilling the floor of the rooms with Porcelain Tiles (Turkish-made or equivalent) (60x60) cm and cement sand mortar 1:3, with filing the tile joints with necessary white Cementous materials. According to the drawing and instructions of supervisor Engineer.	m ²	900.00
7.2	Marble works: supply materials, labors and equipment for covering the stair with marble (0.3x1.5x3) cm for trap and (0.2x1.5x3) cm (Turkish-made or equivalent) and cement sand mortar 1:3, with filing the joints with necessary white Cementous materials and inclining the edge .	m.l	50.00
7.3	Tilling by Shtiger works: supply materials, labors and equipment for tilling the walk ways and the entrance of buildings by with colored Shtiger Tiles (40x40) cmx2cm and cement sand mortar 1:3, with filing the tile joints with necessary white Cementous materials. According to the drawing and instructions of supervisor Engineer.	m ²	100.00
7.4	Tilling by ceramic works: supply materials, labors and equipment for tilling the wash facilities of buildings by with colored ceramic Tiles (40x40) cm or equivalent(Turkish type or equivalent) and cement sand mortar 1:3, with filing the tile joints with necessary white Cementous materials. According to the drawing and instructions of supervisor Engineer.	m ²	110.00
7.5	Ceramic Tile for walls: supply materials, labors and equipment for covering the walls of the wash facilities, kitchens, laboratory of buildings by with colored ceramic Tiles (Turkish type or equivalent) set with skirtings' and cement sand mortar 1:3, with filing the tile joints with necessary white Cementous materials, the works include plastering walls with layer of cement sand mortar (Kafmal),the measurement will be square meter .According to the drawings, design and instructions of supervisor Engineer.	m ²	610.00
8	Finishing works: Provide materials, labors, equipment, machines, curing's and all requirements according to IGTS 100,1400,600 ,900 and instructions of supervising Engineer.		
8.1	Plastering by cement: Provide materials and all requirements for plastering using cement: sand mortar 1:3 for walls, outside slab and fence , by three layer (filling joint and spray layer, plastering layer with layer (kavmal) then final layer which should be smooth) the thickness not less than 2 cm, straight angle using Aluminum rule 3 m ,covering intersection of columns and beams with walls by mesh wire . All the works should be conducted according to instructions of supervising Engineer.	m ²	2,100.00

8.2	Plastering by Gypsum: Provide materials and all requirements for plastering by Gypsum for interior walls and roofs .The price include plastering one layer of cement using cement: sand mortar 1:3 for , (kavmal) then final layer which should be smooth) the thickness not less than 3 cm, straight angle using Aluminum rule 3 m ,covering intersection of columns and beams with walls by mesh wire . All the works should be conducted according to instructions of supervising Engineer.	m ²	2,050.00
8.3	Painting: Provide materials and all requirements for painting using emulsion for inside of rooms corridors and anti humidity(moisture blocker) for out side walls (Turkish made or equivalent) in three layer or more until final appearance is accepted by the supervising engineer. All the works should be conducted according to IGTS and instructions of supervising Engineer.	m ²	4,150.00
8.4	Oil 'Painting: Provide materials and all requirements for painting using oil paint for inside of rooms corridors and (Turkish made or equivalent) in three layer or more until final appearance is accepted by the supervising engineer. All the works should be conducted according to IGTS and instructions of supervising Engineer.	m ²	700.00
8.5	Marble for windows: Supply materials, tools, manpower for covering the face of windows by double marble Copen according to width of walls 2 thickness, using cement mortar 1:3 (cement: sand) and adhesive materials with all requirements, filling the joints with suitable cement use materials, the measurement will be circumference of windows only all the work should be done according to the drawing and instructions of supervisor Engineer.	m.l	270.00
8.6	Marble for doors: Supply materials, tools, manpower for covering the face of windows by single marble Copen according to width of walls 2 thickness, using cement mortar 1:3 (cement: sand) and adhesive materials with all requirements, filling the joints with suitable cement use materials, the measurement will be circumference of windows only all the work should be done according to the drawing and instructions of supervisor Engineer.	m.l	240.00
8.7	Gypsum Copen: Supply materials, tools, manpower for fixing the Gypsum Copen under the false ceiling for the rooms, corridors and other parts with all requirements, all the work should be done according to the drawing and instructions of supervisor Engineer.	m.l	880.00
8.8	False Ceiling: Supply materials, tools, manpower for covering the roof of by kostic (60x60) cmx1.5 cm thickness Turkish type or equivalent ,the price include fixing good quality of rail with root volt , screws, washers with all requirements, , the measurement will be engineering square meter only all the work should be done according to the drawing and instructions of supervisor Engineer.	m ²	760.00
8.9	False plastic Ceiling: Supply materials, tools, manpower for covering the roof of Sanitation units and Lab by (plastic boards) kostic (60x60) cmx1.0 cm thickness Turkish type or equivalent ,the price include fixing good quality of rail with root volt , screws, washers ,plastic Copen under it with all requirements, , the measurement will be engineering square meter only all the work should be done according to the drawing and instructions of supervisor Engineer.	m ²	600.00

8.10	Shade area for Parking : Supply materials and labors for constructing shade for the parking area the work include excavation of foundation for iron columns 50x50x60cm, casting foundation by ordinary concrete 50x50x60 cm, the columns from iron pipe 4", 3 mm thickness, 3.5m height with steel base 15x15 cm from plate, 4mm thickness, main beams from rectangular pipe 5x10cm, (1.8-2)mm thickness, square pipe 4x8cm, (1.8-2)mm thickness (75-90)cm c/c (Taraheya), all steel structure fixing by welding, covering steel structure by white corrugated sheet 0.6mm thickness (Turkish made or equivalent), fixing the sheet with steel structure by using screws, Bracing between columns for the one long direction as in drawings , painting the frame by anti rust and oil paint two layers, according to the drawings and instruction of supervisor engineer.	m ²	36
8.11	Porcelain skirtings' : Supply materials, tools, manpower for installing the porcelain tile for skirting 12 cm height Turkish type or equivalent ,with cement sand mortar (1:3) with all requirements, all the work should be done according to the drawing and instructions of supervisor Engineer.	m.l	700.00
9	Sanitation works : Provide materials, labors, equipment, machines, curing's and all requirements according to IGTS 1500 and instructions of supervising engineer.		
9.1	HAND WASH BASIN : Provision of materials, manpower and equipment to install hand wash basin four for PWD (ceramic type (Turkuaz, Duravit, Vitra) or equivalent (if the mentioned brand are not available)) with dimension 60x40cm with the ceramic base and with all requirement such as water mixer fitting, valves, hoses, and using the proper bracket and adhesive to fix the basin to the wall, with connection to the water tanks using PPR Composite Water Pipes 20 mm with Min. 3 Layers side walls (PPR/GF or AL/PE), PPR-C inner layer and a special mixture of GF PP or Aluminum middle layer and should be coated with an external layer of LDPE (Low Density of Polyethylene Layer) dark grey color to provide protection against ultraviolet rays, PN25 x 4.2mm PPR80 UV resistant (approved sample and suitable for drinking purpose/food grade) for both cold and hot water. The pipes will be buried under the concrete floor. The work includes back filling, all fitting, valves, hoses. According to the specification and instruction of supervisor Engineer.	No.	20.0
9.2	Eastern Latrine base : 'Provide all the materials, machines, and manpower needed to install new Ceramic pan Eastern type with the flushing system (Siphon) (Turkuaz, Tota) or equivalent (if the mentioned brand are not available) with all necessary fittings (gully trap, chromium water Valve No. 1, pipes fittings, special glue,....etc.).	No.	11.00
9.3	WESTREN LATRINE WORK : Provision of materials, manpower and equipment to install western latrine base (ceramic type (Turkuaz, Duravit, Vitra) or equivalent (if the mentioned brand are not available)) with flush tank and all requirement ,the work includes providing and fixing chromium tap 12 mm fix on wall with connection to the water tanks with connection to the water tanks using PPR Composite Water Pipes 20 mm with Min. 3 Layers side walls (PPR/GF or AL/PE), PPR-C inner layer and a special mixture of GF PP or Aluminum middle layer and should be coated with an external layer of LDPE (Low Density of Polyethylene Layer) dark grey color to provide protection against ultraviolet rays, PN25 x 4.2mm PPR80 UV resistant (approved sample and suitable for drinking purpose/food grade) for both cold and hot water. The pipes will be buried under the concrete floor. All works to be executed according to specifications, drawings, and instructions of supervising Engineer.	No.	4.0

9.4	<p>WATER TANK: Provision and installation of (HDPE) water tanks with capacity not less than 2,000 liters, approved sample vertical water tank with top/open cover, the walls with 3 Layers, of grey color internally and Blue color externally), and also with 1-inch cooper/brass outlet, 100% Virgin raw material not recycled (Polyethylene-linear high/low density) Food Grade. The tanks also should be Anti -ultra violet (U.V.) resistance which blocks the sunlight and sun heat free of Algae and odor. The work includes provision of float valve , also the work includes connection form the tank to the source of water using PPR Composite Water Pipes (size 25 mm) with Min. 3 Layers side walls (PPR/GF or AL/PE), PPR-C inner layer and a special mixture of GF PP or Aluminum middle layer and should be coated with an external layer of LDPE (Low Density of Polyethylene Layer) dark grey color to provide protection against ultraviolet rays, PN25 (approved sample and suitable for drinking purpose/food grade) and also installation of a valve with size 25 mm on the main pipe with 4 pieces of Styrofoam and wood 100x20x1000 mm as abase . All materials to be from approved quality & sample, and the supplier should provide certificate of origin and quality of all supplied materials. The work also includes fixing the tanks using a metallic chain or band, with all necessary work.</p>	No.	6
9.5	<p>STAINLESS STEEL SINK: Provision of materials, manpower and equipment to install stainless steel sink two basin with plastic counter (2 m) length base and all requirement ,the work includes providing and fixing stainless steel mixture fix on wall with connection to the water tanks with connection to the water tanks using PPR Composite Water Pipes 20 mm with Min. 3 Layers side walls (PPR/GF or AL/PE), PPR-C inner layer and a special mixture of GF PP or Aluminum middle layer and should be coated with an external layer of LDPE (Low Density of Polyethylene Layer) dark grey color to provide protection against ultraviolet rays, PN25 x 4.2mm PPR80 UV resistant (approved sample and suitable for drinking purpose/food grade) for both cold and hot water. The pipes will be buried under the concrete floor. The work includes back filling , all fitting, valves, hoses. According to the specification and instruction of supervisor Engineer.</p>	No.	1.0
9.6	<p>Electricity Boiler :Supplying, installing and establishing an electric boiler, capacity of (200) liters and power of (3000) watts, the price include on/off switch with an indication lamp capacity (45) ampere, using standard Turkish, Jordanian or Saudi copper wires. (3 x 4) mm² inside plastic pipe or trunk and connected to an separate circuit breaker and a separate line with connection to feeders of hot and cold water with inspection, operation and all that is necessary to work.</p>	No.	4
9.7	<p>Connection with main source of water: Provision of materials, manpower and equipment to install water pipes from main source to main water tanks, using PPR, PN20, Composite Water Pipes (size 25mm) with Min. 3 Layers side walls (PPR/GF or AL/PE), PPR-C inner layer and a special mixture of GF PP or Aluminum middle layer and should be coated with an external layer of LDPE (Low Density of Polyethylene Layer) dark grey color to provide protection against ultraviolet rays, including excavation (30*60) cm, layer of soft sand and back filling including all fitting, valves, hoses. Following the specification and instruction of supervisor engineer. All materials to be from approved quality & sample, and the supplier should provide certificate of origin and quality of all supplied materials.</p>	m.l	130.0

9.8	<p>Water pipe :Provision of materials and manpower to install water pipes from the water tanks to kitchens , shower and toilet, Lab, using PPR Composite Water Pipes (20 mm) with minimum 3 Layers side walls (PPR/GF or AL/PE), PPR-C inner layer and a special mixture of GF PP or Aluminum middle layer and should be coated with an external layer of LDPE (Low Density of Polyethylene Layer) dark grey color to provide protection against ultraviolet rays, PN25 PPR80 UV resistant (approved sample and suitable for drinking purpose/food grade). All materials to be from approved quality and sample, the supplier should provide certificate of origin and quality of all supplied materials. The work also includes installation of existing water tanks with float valve and chromium water tap (3) inside, shower and toilet and fixing two valves 20mm with all fitting and necessary work.</p>	m.l	450.00
9.10	<p>SHOWER BASIN: Provision of materials, manpower and equipment to install ceramic shower wash basin with dimension 80x80cm with all requirement such as water mixer fitting, valves, hoses, and using the proper bracket and adhesive to fix the basin to the wall, with connection to the water tanks using PPR Composite Water Pipes 20 mm with Min. 3 Layers side walls (PPR/GF or AL/PE), PPR-C inner layer and a special mixture of GF PP or Aluminum middle layer and should be coated with an external layer of LDPE (Low Density of Polyethylene Layer) dark grey color to provide protection against ultraviolet rays, PN25 x 4.2mm PPR80 UV resistant (approved sample and suitable for drinking purpose/food grade) for both cold and hot water. The pipes will be buried under the concrete floor.</p> <p>The work includes back filling, all fitting, valves, hoses. According to the specification and instruction of supervisor Engineer.</p>	No.	1.0
9.11	<p>Sanitation pipe PVC100 mm: .Sanitation pipe 100 mm SN4,3.5 mm: Provide all the materials, machines, and manpower needed for installing a 100 mm Sewerage lines by Excavation of trench min. (50 x 40) cm in all type of soils, even rocky, removal of debris to the sites as directed by Engineer, compacting the bed spreading a layer of a clean soil under the pipe then laying and connecting the PVC pipes of Min.1% slope with special glue, white color (Size =100 mm, 4 mm wall thickness) with all necessary fittings and accessories (Tee, Elbow 45/90 degree, valves, divider, check points for (latrine, shower and kitchen) ...etc.) and galvanized cover size (70x70mm) for the floor drain inside showers and Kitchens then backfilling with a layer of a clean soil with a good compaction, the top of the pipe must be covered by min. 10 cm of clean soil, and a layer of crushed gravel (10 cm), according to the instruction of the supervising Engineer.</p>	m.l	200.00
9.11	<p>Sanitation pipe PVC 150mm: Sanitation pipe: Provide all the materials, machines, and manpower needed for installing a 150 mm Sewerage lines by Excavation of trench min. (60 x 50) cm in all type of soils, even rocky, removal of debris to the sites as directed by Engineer, compacting the bed spreading a layer of a clean soil under the pipe then laying and connecting the PVC pipes of Min.1% slope with special glue, white color (size =150 mm, SN 8, 4.70 mm wall thickness) with all necessary fittings and accessories (Tee, Elbow 45/90 degree, valves, divider ...etc.) then backfilling with a layer of a clean soil with a good compaction (minimum 20 cm), according to the instructions of the supervising Engineer.</p>	m.l	70.00
9.12	<p>PVC manholes (400x400)mm: Provision of materials and manpower to install PVC manholes (40x40) cm , for black gray & water from building to main manholes. The work also includes excavation, , covering the manholes by concrete 7 cm thickness (40 cm width), with all fitting and necessary work.</p>	No.	65.00

9.13	PVC manholes (500x500)mm: Provision of materials and manpower to install PVC manholes (50x50) cm , for black gray & water from building to manholes. The work also includes excavation, , covering the manholes by concrete 7 cm thickness (50 cm width), with all fitting and necessary work.	No.	8.00
9.14	Septic tanks and cesspools: Provide all the materials, machines, and manpower needed for construction of septic tanks with interior dimension (2x3x6) m with cesspool interior diameter 2 m. and depth 2.5 m ,including excavation works ,casting the foundation(floor) by ordinary concrete (210Kg/cm2) 20 thickness for septic tanks and for foundation of walls for cesspools, building walls of both by solid concrete blocks 40 cm thickness for main walls and partition ,plastering by cement for inside and outside of septic tanks with painting by bituminous materials for septic tanks, casting reinforced concrete for the slabs 20 cm thickness for both, then backfilling with a layers of a clean soil with a good compaction (minimum 25 cm) of side , according to the instructions of the supervising Engineer.	LS	2.00
9.15	Stainless steel taps: Provision of materials and manpower to install stainless steel taps size 1/2" with all fitting and necessary work.	No.	20.00
9.16	Stainless steel mixture: Provision of materials, manpower and equipment to install stainless steel mixer ,the work includes fixing stainless steel mixture fix on wall with connection with connection to the water tanks using PPR Composite Water Pipes 20 mm with Min. 3 Layers side walls (PPR/GF or AL/PE), PPR-C inner layer and a special mixture of GF PP or Aluminum middle layer and should be coated with an external layer of LDPE (Low Density of Polyethylene Layer) dark grey color to provide protection against ultraviolet rays, PN25 x 4.2mm PPR80 UV resistant (approved sample and suitable for drinking purpose/food grade) for both cold and hot water. The pipes will be buried under the concrete floor. The work includes back filling , all fitting, valves, hoses. According to the specification and instruction of supervisor Engineer.	No.	5.0
9.17	Floor drain: Provision of materials, manpower and equipment to install stainless steel floor drain size (15x15) cm ,the work includes installing of PVC pipe 4 " from the drain to manholes with excavation works. The work includes back filling , all fitting, Gully Trap, hoses. According to the specification and instruction of supervisor Engineer.	No.	15.0
9.18	Galvanized Steel pipe 3": Provision of materials, manpower and equipment to install galvanized steel pipe diameter 3" ,heavy weight not less than (9 Kg/m.l) for roof drainage including the required fittings, elbow, connecting joints ,According to the specification and instruction of supervisor Engineer.	m.l	45.0
10	External works: Provide materials, labors, equipment, machines, curing and all requirements according to IGTS and instructions of supervising engineer.		
10.1	Garden works: Provision of materials, manpower and equipment to construction of garden including ,leveling of the ground, back filling for the places required by clean soil, supply and spreading 20 cm of soft sand (silt materials) suitable for growing plant ,According to the specification and instruction of supervisor Engineer.	m ²	160.0
10.2	Flowers works: Provision of materials, manpower and equipment to construction line of colored Shtiger (30x20x5 cm) or equivalent dimension for separating the garden from flower places including ,leveling &back filling for the places required ,According to the specification and instruction of supervisor Engineer.	m.l	160.0

10.4	Fuel Tank: Provision of materials, manpower and equipment to Install of Galvanized steel tanks size 1500 liters,2 mm thickness , Including building two row of concrete block 40 cm thickness,60 cm height, plastering by cement ,According to the specification and instruction of supervisor Engineer.	No.	1.0
11	Electrical work : Electrical points including provision and installation of all materials and labor, wires 2x2.5 mm2 for powering and 2x1.5 mm2 for lighting, galvanized boxes, switch 15 amp best type . All the works shall be according to British Standards, Drawings and Section 1600 of I.G.T.S.		
11.1	Supplying materials and installing steel box size (140 x 100 x 60) cm with all the necessary accessories for the work. A lock must be installed on it, all work must be according to the supervising engineer instruction	No.	1.0
11.2	Supplying materials and installing a three-phase electric power meter, a complete Japanese type, and the price includes the supply of three CTs, which are selected by the supervisory committee and of the best quality, with all the necessary accessories for work and according to the instructions of the supervising engineer.	No.	1.0
11.3	Supplying materials and installing a three-phase 100A MCCB of the best quality and according to the instructions of the supervising engineer with a plastic cover with all the necessary work for the connection and according to the instructions of the supervising engineer	No.	2.0
11.4	Supplying materials and installing a three-phase 160A MCCB of the best quality with all the necessary work for connection and according to the instructions of the supervising engineer	No.	4.0
11.5	Supplying materials and installing a three-phase 400A MCCB of the best quality with all the necessary work for connection and according to the instructions of the supervising engineer	No.	2.0
11.6	Supplying materials, installing and testing a voltmeter (0-500) volts with a voltage selection switch.	No.	1.0
11.7	Supplying materials, installing and testing the three-phase current meter with CTs (300/5) capacity(3 units)	LS	1.0
11.8	Supplying materials, installing and testing the change over switch 400A full three phase, and it is selected by the supervisory committee and of the best quality.	No.	1.0
11.9	Supplying materials, installing and inspecting a Cu bass bar of size (3x26)mm 2 full (600A), and it is selected by the supervisory committee and of the best quality.	m.l	5.0
11.10	Supply install and inspect the insulator with all accessories to install the bass bar in the main board with all necessary accessories.	LS	1.0
11.11	Supplying, installing and checking a 6A circuit breaker to protect the entire electric meter. It is selected by the supervisory committee and from the best quality.	No.	3.0
11.12	Supplying, installing and testing an electrical distribution panel board of 160 A, 24 lines, each line with a breaker of 30 A, best quality according to the plans and directives of the supervising engineer full set, and it is selected by the supervisory committee and is of the best quality.	No.	4.0
11.13	Supplying, installing and connecting a thermal insulator using plastic pipes to protect the following copper cables (600/1000) volts.	LS	1.0
11.14	Supplying and installing the best quality 4x4 mm2 Cu cable or standard for AC split units .	m.l	330.0
11.15	Supplying and installing the best quality 4x16 mm2 Cu cable or standard for the radiology department.	m.l	90.0
11.16	Supplying and installing the best quality Cu cable 4 x 25 mm2 of the best quality or standard. .	m.l	180.0

11.17	Supplying and installing Cu cable 3 * 95 + 50 mm ² of the best quality or standard.	m.l	28.0
11.18	Supplying and installing single core wires 1 x 16 mm ² of the best quality or standard.	m.l	70.0
11.19	Supplying and installing single core wires 1 x 35 mm ² of the best quality or standard.	m.l	70.0
11.20	Supplying, installing cable tray of size 20 cm ² to extend the cables over the false ceiling.	m.l	30.0
11.21	Supplying, installing and testing points of lighting , switch plug, earthling and fans using plastic pipes of size 1.8 x 25 mm ² Inspect electrical points for exhaust fans using 25 mm PVC pipes using single wires of size 2.5 mm ² with boxes	points	280.0
11.22	Supplying, installing and testing 80w(60*60)cm LED panel of operating voltage (85v-265v) with a plastic cover to be used inside the entire false ceiling(recessed type). It is selected by the Supervisory Committee and is of the best quality. .	No.	130.0
11.23	Supplying materials, installing and inspecting 20w ceiling spotlight LED lamp of operating voltage (85v-265v) with all necessary accessories, complete and selected by the supervisory committee and of the best quality. .	No.	35.0
11.24	Supplying materials, installing and testing 60w outdoor waterproof LED ceiling lamp of operating voltage (85v-265v) with all necessary accessories and according to the instruction of the supervising engineer.	No.	21.0
11.25	Supplying materials, installing and inspecting 60w LED lighting lamp of operating voltage (85v-265v) , oval type , with all necessary accessories, complete, and it is selected by the supervisory committee, and it is of the best quality. .	No.	16.0
11.26	Supplying, establishing, inspecting and installing the best quality switch plug 13A, good type, using 3 * 2.5 mm wires, selected by the supervisory committee and of the best quality.	No.	65.0
11.27	Supplying, establishing, inspecting and installing switch plug optics for water heaters and air conditioners with the boxes, using single core wires 3*4 mm, best quality, 45A, good type, according to the choice of the supervising engineer.	No.	32.0
11.28	Supplying, establishing, checking and installing a Panasonic pbx central 40 digital lines or equivalent, type input and output, a type of detector. The price include all necessary work of MDF ,boxes, and wires ,according to the choice of the supervising engineer	No.	1.0
11.29	providing materials for installing and checking the telephone distribution panel size (20x06) mm ² (30 lines) with all the necessary accessories and the instruction of the supervising engineer.	No.	1.0
11.30	Supplying, establishing, checking and installing the telephone sockets of the best quality. The price includes the provision and installation of plastic pipes with the necessary wires and a collection box as chosen by the supervising engineer.	No.	20.0
11.31	<u>Fire system (early warning)</u> Supplying, installing and checking the (Zeta, Gimta or equivalent) four-zone fire alarm system with batteries, UPS with 40 smoke sensors, 4 alarm devices, and emergency breaker glass with 4 switches using wires for the fire system and according to the instruction of the supervising engineer.	No.	1.0
11.32	Supplying, installing , checking and establishing a television point with all work requirement , such as installing wires and boxes, and according to the directions of supervising Engineer.	No.	4.0

11.33	Supplying materials and making a hole in the wall for air conditioners (split) complete, and the price includes all the requirements of pipes, wires, trunks and drain pipes, and the size and quality are chosen by the supervisory committee.	No.	22.0
11.34	Supplying materials, installing and inspecting 12 inches exhaust fan using the best quality wire using a cover with all necessary accessories of the best quality or selected by the supervisory committee and of the best quality.	No.	6.0
11.35	Supplying and installing a ceiling fan of the best quality with the regulator and all accessories complete and selected by the supervisory committee.	No.	25.0
11.36	Supplying materials, installing and inspecting 6 inches exhaust fan using the best quality wire using a cover with all necessary accessories of the best quality or selected by the supervisory committee and of the best quality.	No.	9.0
11.37	Supplying materials, checking and installing a good quality electric bell with all necessary accessories	No.	12.0
11.38	Supplying materials, checking and installing the earthing system using a copper cable with a copper rod of 120 cm length and a wire of size 70 mm ² with all work accessories and according to the instructions of the supervising	No.	2.0
11.39	Supplying materials, installing and inspecting 2*100w lighting lamp for outdoor lighting, with poles of 2.5 m length, Turkish quality, and with a concrete base, dimensions (40 x 40 x 50) cm, with the necessary accessories to connect the electric cable 4 * 4 mm ² to the electrical source with the installation of a photocell And the necessary connectors	No.	16.0
11.40	Providing materials for installing and checking the telephone distribution panel size (20x06) mm ² (30 lines) with all the necessary accessories and the instruction of the supervising engineer	No.	1.0
11.41	Supplying and installing air ducts from a galvanized plate Cage 24 and fixing iron bars of 10 mm threaded with the nut and the air 10 cm and for each 70 cm. The connection is made using flanges, screws and threads, according to the plans and dimensions (30 * 40) cm and according to the instructions of the supervising engineer.	m.l	11.0
11.42	Supplying, and installing 2ton AC split unit of brand (Araceli, LG, Samsung, Gree) inverter type, hot and cold, with all accessories and requirements necessary for work.	No.	20.0
11.43	Supplying, and installing 1.5ton AC split unit of brand (Arcelik, LG, Samsung, Gree) inverter type, hot and cold, with all accessories and requirements necessary for work.	No.	10.0
11.44	Supplying, connecting, installing and testing transformer of capacity (250 kva).the contractor should provide test from DOE of Duhok according to KRG standards 380v 50hz ,the price also include all necessary materials for installing transformer of High voltage and low voltage materials per need of sizes and number including poles ,complete Lv board ,terminals, conductors ,cables, pin insulators, linkage fuses, lightning arrestor, high and low pressure joint, etc., and making a concrete base for it, according to the instructions of the supervising engineer.	LS	1.0
11.45	Supplying, installing and laying 3*120 + 95 mm ² cable using plastic pipes to protect copper cables (600/1000) volts. Supplying, installing and checking plastic pipes with a diameter of 4 inches to extend the electric cable. The price includes excavations in all types of soil, street excavation or breaking The casting and then laying a layer of sand and restoring the area to what it was before and all the necessary works and tools to install the cable from high tension to the transformer and according to the instruction of the supervising engineer.	m.l	70.0

Scope of Work (SOW)

Construction of Primary Health Care Centre (PHCC) in Domiz Town, Dohuk, Iraq

As part of an effort to promote equal access to health services and to integrate refugees into the national health system, UNHCR and health partners (WHO, UNICEF, UNFPA) engaged in discussions with the Directorate of Health (DOH) on the transition of provision of health services to national authorities and agreed that a Primary Health Care Centre (Type A) built in the area between Waar City, Domiz 1 and Domiz 2 camp. According to UNHCR data, the area hosts over 30,000 refugees of Syrian and non-Syrian nationality in both camp and non-camp locations, in addition to IDPs nearby. The proposed location is thus strategic and accessible by refugees, IDPs and host communities in the surrounding areas.

Despite the large population, there are limited health services outside of the camp. The nearest PHCC outside the camp is located in Domiz urban area and provides very basic health services. Among the PHCCs in the vicinity, the PHCC inside Domiz 1 camp provides most comprehensive treatment, and while the PHCC inside Domiz 1 camp also offers services to host community and IDPs, the non-refugee population tend not to seek/access medical treatment there thinking that it is exclusively for refugees.

From UNHCR's stakeholder engagement and analysis, it is recommended that a PHCC offering more comprehensive service (Type A) is needed in this proposed area near Domiz 1 Camp, which is accessible by refugees from Domiz 1, Domiz 2 Camp, Waar City and IDPs as well as host community around the area. This PHCC Type A will consolidate the PHCC in Domiz 1, Domiz 2 and Domiz Urban together. This intervention will promote the inclusion of refugees into the national health system. This intervention will also promote the implementation of Camp-to-Neighbourhood approach.

The work includes:

- Demarcation, Clearing and grubbing of the site.
- Civil works (site preparation, crushed gravel works, excavation, backfilling, etc...)
- Construction of foundations, walls, casting concrete, reinforced concrete works.
- Doors, windows, flooring, and roofing (false ceiling) works
- Sanitation works (construction of WASH facilities, pipes installation, provision and installation of latrines, construction of septic tanks and cesspools, etc...)
- Electrical works with all its fittings and requirements.
- Provision and installation of AC units.

No	Item/s to be Supplied	Description/ Specifications of Goods	Related Services	Contract Duration
1	Following the items description in the BOQ and technical drawings	As per BOQ	As per BOQ	180 calendar days

Site Visit: Mandatory, Domiz Town.

Any Purchase Order (PO) issued as a result of this RFP will be made in USD. Payment will be made in accordance with the General Conditions for the Provision of Services and in the currency in which the PO is issued. Payments shall only be initiated after confirmation of successful completion by UNHCR business owner.

Payment will be made as follows:

- a) 1st Payment (30%) of contract value after completing 40% of work.
- b) 2nd Payment (40%) of contract value after completing 80% of work.
- c) 3rd Payment (20%) of contract value after completing 100% of work.
- d) Final Payment (10%) Retention Payment shall be released after the Defect Liability Period of six months after completion of the project.

Any Purchase Order (PO) issued as a result of this RFP will be made in USD Currency.