

Scope of Work (S.O.W.)

Rehabilitation of Albo-Marie, Al-Hamra and Al-Tarboliya Water Complexes in Al-Khairat District - Karma

Name of project: Rehabilitation of Albo-Marie, Al-Hamra and Al-Tarboliya Water Complexes in Al-Khairat District – Karma

Targeting:

The project's aim is to rehabilitate three water complexes (Albo-Marie, Al-Hamra and Al-Tarboliya in Al-Khairat District - Karma). Al-Tarboliya Complex was exposed to partial damage during the last conflict which led to many defects in its parts. Albo-Marie and Al-Hamra Complexes are old and have some damages also with many defects in their parts. Beneficiaries numbers of this project are (3,200 for Albo-Marie, 3,100 for Al-Hamra, and 1,500 for Al-Tarboliya).

Governorate-Suburbs:

This project belongs to Karma Water Center- Anbar Water DG. These water complexes are located in Al-Khairat District - Karma and will serve the residents in three areas in Al-Khairat District by providing purified drinking water.

Anticipated project duration: 120 Calendar Days

GPS: Albo-Marie Water Complex: 33.597501 N - 44.105947 E
Al-Hamra Water Complex: 33.579300 N - 44.061845 E
Al- Tarboliya water Complex: 33.608379 N - 44.080510 E



The project includes the following:

Part 1: Rehabilitation of Albo-Marie Water Complex 200 m³/h

Part 1-1:- Rehabilitation of Water Complex

The work includes; supplying, installing and connecting horizontal pump, class F, 75kw, casing made of cast iron, consists of stainless steel shaft, the engine coil is made of copper and bronze impeller with all required plumbing works, supplying, installing and connecting horizontal pump, class F, 22kw, casing made of cast iron, which should be installed in the withdrawals section "Intake", consists of stainless steel shaft, the engine coil is made of copper and bronze impeller with all required plumbing works, supplying and installing chlorine system with all requirements, supplying and installing Alum system with all required works, supplying and installing high and slow speed mixers according to required specification, Rehabilitation and testing sedimentation basin and Intermediate Basin according to the required specification, , Also works including rehabilitation the horizontal filters with all required works, Supply, install, connect and test heavy galvanized pipes which should be used to connect the parts of the water treatment unit together, supplying and installing mechanical check valves in different diameter with all required fitting and accessories according to the required types and sizes, supplying and installing a main distributing board for water treatment unit according to the required specification with all required parts and accessories, The work includes, Repairing of Intake Steel Structure " Withdrawals Section " , Supply, Install, connect and test PVC Pipes different sizes 10 bar atmospheric pressure with All the Works required to complete the Works, , the work include build the fence by excavation works and Sub-base with Concrete works Plain and Reinforced) and build the fence under D.P.C with bricks type A of (24x 12x 7.5) cm and cement-sand mortar (1:3) with Cast the D.P.C layer then build the fence above the D.P.C using hollow concrete Block (40*20*20) cm with Cement plastering and rendering also Repairing the External Fence with Paint and all Required to Complete the Work, The Works including also Repair the Main Steel Door for the Complex by removing the old layers paints for the door, painting with anti-rust paint and three layers of oily paints, replacing of the lock and handles with new one, Supply, install, connect, test and operate generator of 250 kVA capacity (50Hz/400V) silent type and 6 cylinders, with Change over 630 AMP and concrete base with and Metal Sunshade and all Required to complete the Works,.

Part 1- 2:- Rehabilitation of Services Building.

The work includes; Plastic Painting for Internal Walls 3 Layers with All Required, repair all steel doors 2*1 m for the school, the work includes painting with three layers of oily paints specification, remove the old mastic and refill the joints using new mastic with

cautery , the work includes removing the damaged concrete tiles and refinish with new concrete tiles, close all the openings of the window air conditioning unit and the damaged parts in the walls, with Repair the Windows Glasses , Also Rehabilitation all Electrical Works in the Building inside and Out Side (LED Bulb Lamp, Outdoor Lights, Ceiling Fan and Exhaust Fan, Socket 45 Amp) , also the Works including replace the water tank by new one 1000 liter , Supply, install, connect and test air-conditioning split units of 2 Ton capacity, heating and cooling and wall type with drain pipes, Supply and install electrical heater 120 Liter capacity with All Required to complete the Works .

Part 2: Rehabilitation of Al-Hamra Water Complex 200 m3/h

Part 2-1:- Rehabilitation of Water Complex

The work includes; supplying, installing and connecting horizontal pump, class F, 75kw, casing made of cast iron, consists of stainless steel shaft, the engine coil is made of copper and bronze impeller with all required plumbing works, supplying, installing and connecting submersible pump, class F, 22.5kw, casing made of cast iron, which should be installed in the withdrawals section "Intake", consists of stainless steel shaft, the engine coil is made of copper and bronze impeller with all required plumbing works, supplying and installing chlorine system with all requirements, supplying and installing Alum system with all required works, connect and test heavy galvanized pipes which should be used to connect the parts of the water treatment unit together, supplying and installing mechanical check valves in different diameter with all required fitting and accessories according to the required types and sizes, supplying and installing high and slow speed mixers according to required specification , Rehabilitation and testing sedimentation basin and Intermediate Basin according to the required specification, , Also works including rehabilitation the horizontal filters with all required works, supplying and installing a main distributing board for water treatment unit according to the required specification with all required parts and accessories , The work includes, Repairing of Intake Steel Structure " Withdrawals Section " Supply and install and connect distribution board of 400V capacity consist of metal box, circuit breaker of 3 phases and 250 Amp capacity with Expulsion fuse cutout, Supply, Install, test and commission Armored Cables different size Supply, Install, connect and test PVC Pipes different sizes 10 bar atmospheric pressure with All the Works required to complete the Works, The Works including also Repair the Main Steel Door for the Complex by removing the old layers paints for the door, painting with anti-rust paint and three layers of oily paints, replacing of the lock and handles with new one also Repairing the External Fence with Paint and all Required to Complete the Work, Supply, install, connect, test and operate generator of 250 kVA capacity (50Hz/400V) silent type and 6 cylinders,

with Change over 630 AMP and concrete base with and Metal Sunshade and all Required to complete the Works , Supply, Install, connect and operate AVR 200 kVA capacity (50Hz/380V) with all required to complete the works.

Part 2- 2:- Rehabilitation of Services Building.

The work includes; Plastic Painting for Internal Walls 3 Layers with All Required , repair all steel doors 2*1 m for the school , the work includes painting with three layers of oily paints specification, remove the old mastic and refill the joints using new mastic with cautery , the work includes removing the damaged concrete tiles and refinish with new concrete tiles, close all the openings of the window air conditioning unit and the damaged parts in the walls, with Repair the Windows Glasses , Also Rehabilitation all Electrical Works in the Building inside and Out Side (LED Bulb Lamp, Outdoor Lights, Ceiling Fan and Exhaust Fan, Socket 45 Amp) , also the Works including replace the water tank by new one 1000 liter , Supply, install, connect and test air-conditioning split units of 2 Ton capacity, heating and cooling and wall type with drain pipes, Supply and install electrical heater 120 Liter capacity with All Required to complete the Works .

Part 3: Rehabilitation of Al- Tarboliya Water Complex 200 m3/h

Part 3-1:- Rehabilitation of Water Complex

The work includes; supplying, installing and connecting horizontal pump, class F, 75kw, casing made of cast iron, consists of stainless steel shaft, the engine coil is made of copper and bronze impeller with all required plumbing works, supplying, installing and connecting submersible pump, class F, 22.5kw, casing made of cast iron, which should be installed in the withdrawals section "Intake", consists of stainless steel shaft, the engine coil is made of copper and bronze impeller with all required plumbing works, supplying and installing chlorine system with all requirements, supplying and installing Alum system with all required works , The work includes, Repairing of Intake Steel Structure " Withdrawals Section " , Supply, install, connect and test LV- ABC Aluminum Twisted Cable of (3×120+70+16) mm² , Rehabilitation and testing sedimentation basin and Intermediate Basin according to the required specification, , Also works including rehabilitation the horizontal filters with all required works, supplying and installing a main distributing board for water treatment unit according to the required specification with all required parts and accessories Supply, Install, test and commission Armored Cables different size Supply, Install, connect and test PVC Pipes different sizes 10 bar atmospheric pressure with All the Works required to complete the Works, Supply materials, tools and manpower to operate generator of 250 kVA capacity Repair all the Mechanical and electrical works,

with Change over 630 AMP and concrete base with and Metal Sunshade and all Required to complete the Works,.

Part 3- 2:- Rehabilitation of Services Building.

The work includes; Plastic Painting for Internal Walls 3 Layers with All Required , repair all steel doors 2*1 m for the school , the work includes painting with three layers of oily paints specification, remove the old mastic and refill the joints using new mastic with cautery , the work includes removing the damaged concrete tiles and refinish with new concrete tiles, close all the openings of the window air conditioning unit and the damaged parts in the walls, with Repair the Windows Glasses , Also Rehabilitation all Electrical Works in the Building inside and Out Side (LED Bulb Lamp, Outdoor Lights, Ceiling Fan and Exhaust Fan, Socket 45 Amp) , also the Works including replace the water tank by new one 1000 liter , Supply, install, connect and test air-conditioning split units of 2 Ton capacity, heating and cooling and wall type with drain pipes, Supply and install electrical heater 120 Liter capacity with All Required to complete the Works .

- **Schedule of Requirements and Technical Specifications**

The Contractor shall visit the designated sites to be familiar with the condition of the work areas, the structures; it is the bidders' responsibility to acknowledge the site conditions before submitting the bids.

In general, the Contractor should be familiar with all current conditions and circumstances which may affect the work progress.

The Contractor shall implement the Project based on a detailed work plan which shall be approved by the Project Engineer. The contractor is expected to produce/perform works which conforms in quality/quantity and accuracy of detailed specification. The Contractor is to institute a quality control system to ensure adequate monitoring of the works progress at all times.