

# Construction Environmental and Social Plan (CESMP)

**Construction of Additional Sewer Lines and Sewage  
Pumping Stations in Baaloul and Qaraaoun - West  
Beqaa Caza.**

**Khoury Contracting Company S.A.R.L  
KCC**

# TABLE OF CONTENTS

## Table of Contents

1.	INTRODUCTION .....	4
2.	SUMMARY OF PROJECT DESCRIPTION: .....	4
3.	KEY PROJECT ASPECTS: .....	5
4.	CONSTRUCTION SEQUENCING:.....	6
5.	CODE OF CONDUCT: .....	6
6.	Measures to prevent GBV/SEAH:.....	7
7.	ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN: ....	9
1)	REGULATIONS:.....	9
2)	ORGANISATION CHART: .....	9
3)	EXPECTED H&S RISKS: .....	10
4)	IMPLEMENTATION TABLE: .....	11
5)	General notes: .....	22
1)		
	4.1) General .....	4
	4.2) Safety.....	4
	4.2.1) Safety Officer .....	4
	4.2.2) Safety induction training .....	4
	4.2.3) Safety meetings.....	4
	4.2.4) Safety inspections .....	4
	4.2.5) Reporting accidents .....	4
	4.2.6) Safety, health, and environmental signs .....	5
	4.2.7) First aid Kit.....	5
	4.2.8) Providing PPEs .....	5
	4.2.9) Fire protection .....	5
	4.2.10) Scaffoldings.....	5
	4.2.11) Protection from falling.....	5
	4.2.12) Confined spaces .....	5
	4.2.13) Demolition procedures .....	5
	4.2.14) Excavation permits .....	5
	4.2.15) Excavation inspection .....	5
	4.2.16) Accidents .....	5
	4.2.17) PPEs.....	6
	4.2.18) Traffic management .....	6
	4.2.19) Safety barriers .....	7
	4.2.20) Labor Rights .....	7
	4.3) Environmental.....	8
	4.3.1) Air pollution .....	8
	4.3.2) Water pollution.....	9
	4.3.3) Solid waste.....	11
	4.3.4) Noise control.....	13
	4.3.5) COVID-19 procedures.....	14
2)	General notes.....	15
	5.1) Workers and staff.....	15
	5.2) COVID-19.....	15
	5.3) Safety measures and traffic .....	16
	5.4) Camp connections .....	19
	5.5) Project signboards .....	20

## **APPENDICES:**

- ANNEX A – Labor plan**
- ANNEX B – program of work**
- ANNEX C – Code of Conduct for personnel**
- ANNEX D – Grievance mechanism form**
- ANNEX E – Grievance-Procedure-Template**
- ANNEX F – Ecological Management Plan**
- ANNEX G – Camp set up plan**
- ANNEX H – Covid-19 pandemic plan**
- ANNEX I – Expectation of program of work until March 2021**
- ANNEX J – Communication plan**
- ANNEX K – Risk management plan**
- ANNEX L – GBV and SEAH training**
- ANNEX M– Accident report**

## 1. INTRODUCTION

This CESMP has been prepared to cover the environmental and social management of activities associated with the Construction of Additional Sewer Lines and Sewage Pumping Stations in Baaloul and Qaraaoun - West Beqaa Caza to the project during the construction phase. The implementation of this ESMP is the accountability of contractor on the ground.

## 2. SUMMARY OF PROJECT DESCRIPTION:

Our project is located in the West Beqaa in Lebanon, it aims to Construction of Additional Sewer Lines and Sewage Pumping Stations in Baaloul and Qaraaoun.

The scope of work is to boost the infrastructure in Quaraoun and Baaloul near the lake area by installing a new sewer lines network with pumping stations. This new network will minimize pollution of the environment and the ground water in this area.

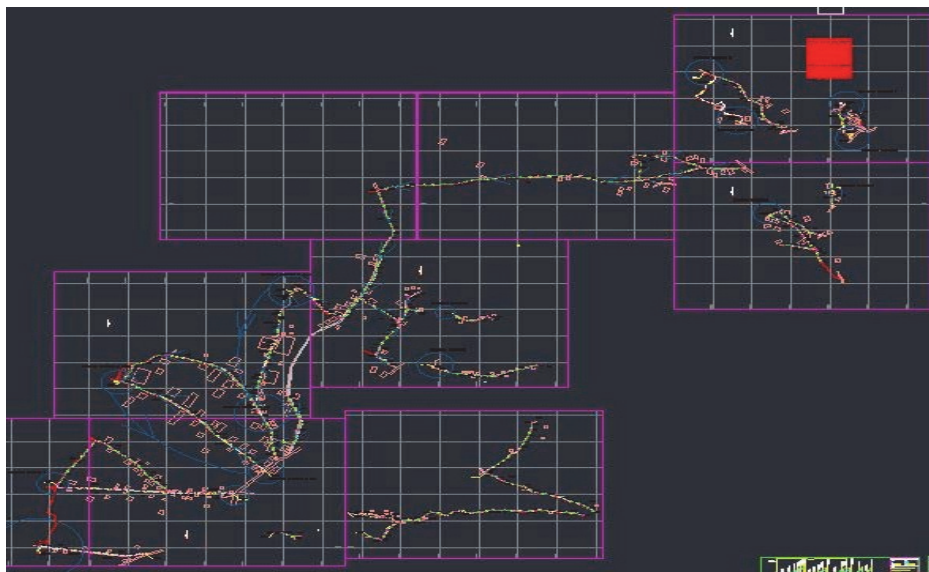
The sewer line network will collect sewage from houses that are provided with new house connections, and from existing networks. The sewage will go through the network until it reaches six new pumping stations, where it will be pumped to existing sewer networks that lead to treatment stations later.

The main activities in this project will be surveying, excavation, pipes installation, manhole installation, filling trenches, compaction, laying asphalt, laying concrete, pumping stations concrete works, and pumping stations electro-mechanical works.

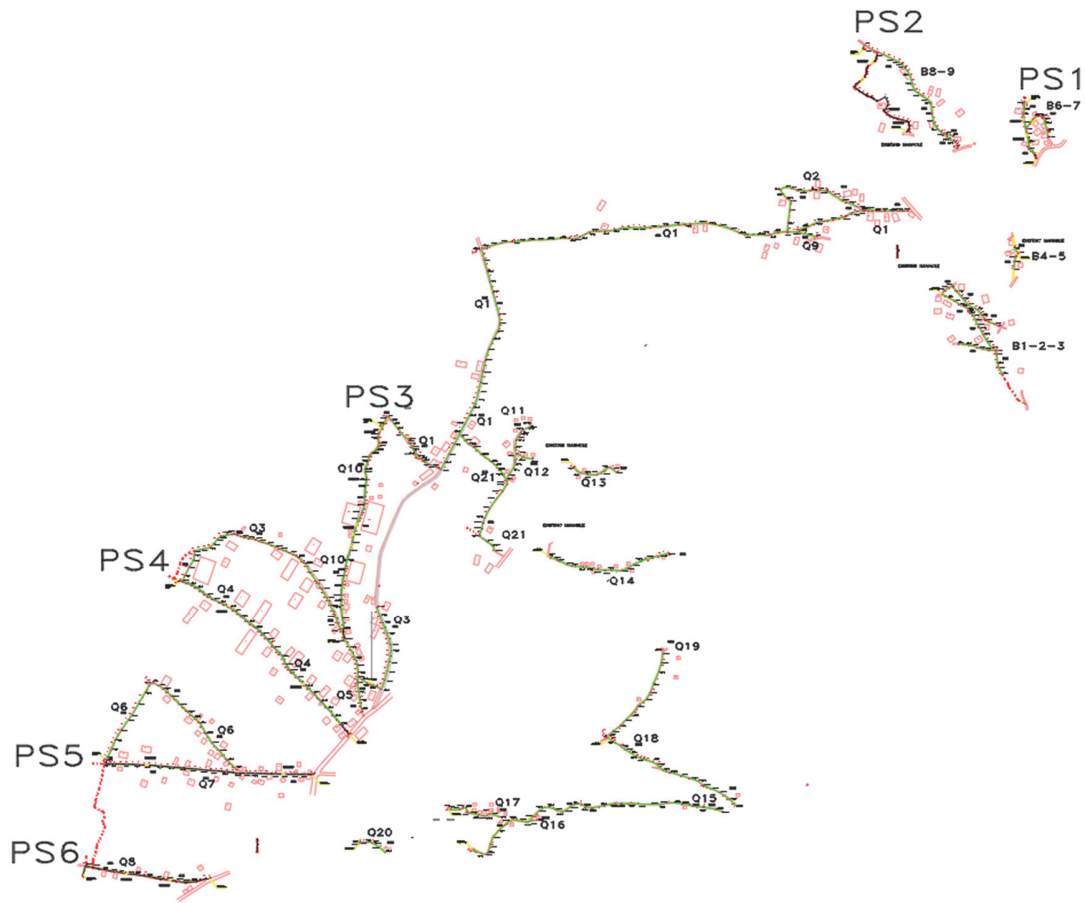
The activities are divided between machineries (excavators, compactors, dozers, trucks ...) and manpower (workers).

The total number of workers (include Palestinians, Syrians and Lebanese) might reach more than 50/day. The size of the project, the amount of machinery, and numbers of workers, oblige to implement safety procedures that will be mentioned in this plan and to have a full insurance coverage plan case of accidents (the insurance was submitted before the project started).

### PROJECT LOCATION AND BACKGROUND:



The site plan as per attachment.



### 3. KEY PROJECT ASPECTS:

The objective of this project is to execution, completion and maintenance during the defect’s liability period of Construction of Additional Sewer Lines and Sewage Pumping Stations in Baaloul and Qaraaoun, to the best practice standard and in compliance with the World Bank cleared CESMP” please add a hyperlink to PDF of World bank CESMP.

This document represents a construction environmental and social management plan.

The Time for Completion set for the entire works is (12) Gregorian calendar months from the Notice to Commence.

#### 4. CONSTRUCTION SEQUENCING:

As shown in the attached schedule.

#### 5. CODE OF CONDUCT:

The HSE/GBV/SEAH Code of Standards and Behavior is an important element of the overall framework within which all employees are expected to work. It sets out the standards required of employees in the discharge of their duties.

These standards of behavior and values will support a high quality public service, based on high levels of personal performance and responsibility.

#### **Main features of the Code**

In the performance of their duties employees must:

(a) Maintain high standards in service delivery by:

- Discharging responsibilities conscientiously, honestly and impartially;
- Always acting within the law;
- Performing their duties with efficiency, diligence and courtesy.

(b) Observe appropriate behavior at work by:

- Dealing with the public sympathetically, fairly and promptly;
- Treating their colleagues with respect.

(c) Maintain the highest standards of probity by:

- Conducting themselves with honesty, impartiality and integrity;
- Never seeking to use improper influence, in particular, never seeking to use political influence to affect decisions concerning their official positions;
- Abiding by guidelines in respect of offers of gifts or hospitality;
- Avoiding conflicts of interest.

(d) Support and be loyal to the HSE by:

- Supporting colleagues and the HSE in the performance of his functions;
- Promoting the goals and objectives of the HSE and not undermining any of them through action or Omission. Seeking to resolve grievances and concerns through agreed channels (Lebanese labor code).
- Ensuring any actions taken maintain public confidence in the HSE Procedures undertaken by the contractor and his staff.

## 6. Measures to prevent GBV/SEAH:

Contractor's Personnel shall:

- Treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
- Not engage in any form of sexual harassment including unwelcome sexual advances, requests for sexual favors, and other unwanted verbal or physical conduct of a sexual nature with other Contractor's or Employer's Personnel;
- Not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. In Bank financed projects/operations, sexual exploitation occurs when access to or benefit from Bank Financed Goods, Works, Consulting or Non-consulting services is used to extract sexual gain; Good Practice Note – Addressing SEA/SH in IPF Involving Major Civil Works
- Not engage in Rape, which means physically forced or otherwise coerced penetration—even if slight—of the vagina, anus or mouth with a penis or other body part. It also includes penetration of the vagina or anus with an object, Rape includes marital rape and anal rape/sodomy. The attempt to do so is known as attempted rape. Rape of a person by two or more perpetrators is known as gang rape;
- Not engage in Sexual Assault, which means any form of non-consensual sexual contact that does not result in or include penetration. Examples include: attempted rape, as well as unwanted kissing, fondling, or touching of genitalia and buttocks not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
- Complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation, and Sexual Abuse (SEA);
- Report violations of this Code of Conduct; and
- Not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of the [Project Grievance Mechanism].

### RAISING CONCERNS

If any person observes behavior that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly.

This can be done in either of the following ways:

1- Contact Ismail Najjar, designated by the Contractor to handle gender based violence in writing at this address (Quaraoun camp, offices, near Quaraoun public school facing the lake) or by telephone at (+961 71326944) or in person at [his house in Beit Shama near the church yard).

2- Call (+961 3 309329) to reach the Contractor’s hotline and leave a message.

The person’s identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate. There will be no retaliation against any person who raises a concern in good faith about any behavior prohibited by this Code of Conduct. Such retaliation would be a violation of this Code of Conduct.

#### Grievance mechanism:

A grievance mechanism is a formal, legal or non-legal (or ‘judicial/non-judicial’) complaint process that can be used by individuals, workers, communities and/or civil society organizations that are being negatively affected by certain business activities and operations.

A grievance mechanism is a formal, legal or non-legal (or ‘judicial/non-judicial’) complaint process that can be used by individuals, workers, communities and/or civil society organizations that are being negatively affected by certain business activities and operations.

In our project the GM is operated by Mahmoud Al Rez who is trained on how to collect SEA/SH cases confidentially and empathetically.

No identifiable information on the survivor should be stored in the GM.

The information in the GM must be confidential—especially when related to the identity of the complainant. For SEA/SH, the GM should primarily serve to:

- (i) refer complainants to the GBV service provider;
- (ii) record resolution of the complaint



## 7. ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN:

### 1) REGULATIONS:

We as KCC will comply with the requirements of all Safety, Health and Environmental regulations and all other applicable regulations or requirements under Lebanese laws, laid down by relevant authorities or issued by the Employer or the Engineer concerning safety, health and the environment, in force or introduced or issued from time to time during the period of the Contract.

### 2) ORGANISATION CHART:

Position / Name	Nationality	Age	Highest Education / Degree	Years of experience (with the company / in construction)	Major works for which responsible (project/value)
<b>Project Manager</b>					
Ali Hajj Sleiman	Lebanese	62	Bachelor in Civil Engineering	36	Responsible for the general management
<b>Quantity Surveyor and shop drawing</b>					
Zouheir Hajj Sleiman	Lebanese	27	Masters in Civil Engineering (structures)	5	Responsible for drawings/details/quantities/work coordination
<b>Land Surveyor</b>					
Mostafa Rifai	Lebanese	53	Bachelor in Civil	26	Responsible for site surveying
<b>Site Engineer</b>					
Zouheir Hajj Sleiman	Lebanese	27	Masters in Civil Engineering (structures)	5	Responsible for site coordination (Labor-Forman- surveying) , progress of work and documents – quality control and inspections
<b>General Forman</b>					
Louis Bou Dagher	Lebanese	58	TS diploma in civil engineering	31	Responsible for labor/driver/equipment/materials
Ismail Najjar	Lebanese	27	Bachelor in Civil Engineering	5	On site safety officer

3) *EXPECTED H&S RISKS:*

- Falls between different levels.
- Falls at the same level.
- Injuries from falling objects due to crumble or collapse.
- Injuries from objects falling from above.
- Injuries from stepping on objects.
- Injuries from cuts or blows from objects and tools.
- Injuries from electric contacts.
- Injuries from being hit or run over by vehicles.
- Injuries from traffic accidents.
- COVID-19 infection

4) **IMPLEMENTATION TABLE:**

This table shows each procedure with the responsible for it and the time of execute it and indicators for completion:

HSO: Safety officer

PM: Project manager

PROCEDURE	RESPONSIBILITY	TIMING	INDICATORS FOR
<b>4.1-General</b>			
In case of any archeological finding, the contractor shall inform the “Direction Générale des Antiquités”	Zouheir Hajj Sleiman	All time	KCC will coordinate with Engineer about any appeal.
<b>4.2-Health and Safety</b>			
4.2.1-Appointing a competent Safety Officer who will be responsible for health and safety. Audit worksite’s equipment, tools and materials, and, hazard preventing devices used, environmental effects of the worksite. Scrutinize cases of deaths and injuries within the workplace, analyze health issues and grievances, and validate reasons why some employees disagree to work on dangerous grounds. Impose that employers and employees join in to programs set for safety and health and contribute advise to promote and foster safe and healthy custom in the site and resolve conflicts arising from health hazard issues between employers and their workers.	Ismail Najjar	5 Hours/week	The appointment of the Safety Officer will be in writing and copied to the Engineer
4.2.2-Provide safety induction training for all site personnel. Topics include showing hazards and risks in the workplaces, training for special equipment, safe work practices, work health, emergency procedures, first aid and COVID-19 safety procedures (that follows WBG guidance for OHS and community health at construction sites).	Ismail Najjar	upon starting onsite (and will occur monthly)	Submit a safety certificate To Engineer
4.2.3-Holding regular safety meetings to provide safety instructions receive feedback from site personnel on safety	Ismail Najjar	Weekly	Submit a MOM To Engineer
4.2.4-Regular safety inspections of the work site.	Ismail Najjar	Daily	A copy of the Safety Officer's inspection reports shall be given to the Engineer.

4.2.5-Report all accidents and dangerous occurrences Accidents and dangerous occurrences will be reported within 24 hrs.	Ismail Najjar	During the execution	Contractor (KCC) shall prepare a report on each accident or dangerous
4.2.6-All safety, health, environmental and other notices and signs will be clearly displayed and written in both Arabic and English.	Ismail Najjar	All time	A copy of the Safety Officer's inspection reports will be given to the Engineer (consultant).
4.2.7-Have comprehensive First Aid Kit(s) on Site	Ismail Najjar	All time	A copy of the Safety Officer's inspection reports will be given to the Engineer (consultant).
4.2.8-Provide personal protective equipment PPES	Ismail Najjar	All time	A copy of the Safety Officer's inspection reports will be given to the Engineer.
4.2.9-Provide a fire prevention and evacuation plan	Ismail Najjar	Will be updated from time to time as the Works progress.	Submit to the Engineer (consultant) and the Authorities (municipality)
4.2.10-Drawings and calculations note for scaffolding	Ali Hajj Sleiman	Prior to commence of work on site	Contractor (KCC) shall take account of any comments on such designs made by the Engineer.
4.2.11-Provide all personnel with adequate protection from falls.	Ismail Najjar	While working at an elevated position	Details of such protection shall be submitted to and approved by the Engineer.
4.2.-12-Confined Spaces prior inspection	Ismail Najjar	Before entering the confined space	Issuance of a Hazardous Work Permit by health and safety officer.
4.2.13-A detailed Method Statement detailing the demolition procedures/techniques to be used will be submitted to the Engineer	Ismail Najjar	Before start demolishing	Approved by Engineer
4.2.14-Obtain an excavation permit from the relevant local authority	Ismail Najjar	Before commencing excavation in any public place	KCC will produce such permit for the Engineer's inspection.

4.2.15-All excavations, slopes and temporary supports will be inspected.	Ismail Najjar	Daily and after each rain, before allowing personnel to enter the	A copy of the Safety Officer's inspection reports will be given to the Engineer.
4.2.16-Accidents and dangerous occurrences will be reported within 24 hours.	Ismail Najjar	All time	Submit to the Engineer and the Authorities
<p>4.2.17-Contractor will provide the following PPEs:</p> <ul style="list-style-type: none"> <li>- Safety helmets</li> <li>- Safety shoes</li> <li>- Reflected Vests</li> <li>- Eyes and face protection</li> <li>- Hand protection</li> <li>- Hearing protection</li> <li>- Safety belts</li> <li>- Masks (COVID19 protection)</li> <li>- Hand sanitizer (COVID19 protection)</li> </ul>			
<p>4.2.18-Traffic Management Plan will be updated in accordance with International Standards and in coordination with Traffic authority including the following measures:</p> <ul style="list-style-type: none"> <li>· Establishment site speed limits, vehicle inspection requirements, operating rules and procedures.</li> <li>· Development of a plan for checking and training truck drivers regarding speed limits routing rules, duration of driving.</li> <li>· Improvement of local traffic signage (where necessary). Usage of signs (reflective signs and/or flashing lights for night) and traffic cones and positioning of flag persons to indicate road work in progress and to inform and warn equipment operators and workers.</li> <li>· Training of Pedestrian workers</li> </ul>	Ismail Najjar	During the execution	Procedure approved by Engineer Management

<p>and operating equipment and provide constant warnings to each other in the event of being in risky locations or conditions.</p> <ul style="list-style-type: none"> <li>· Training of drivers and operators to obey signals, be aware about blind spots and other pedestrian workers while sharing the same working site, and check their vehicles or equipment whenever needed.</li> <li>· Informing drivers about the site traffic rules including speed limits, approved access routes, etc. A map that shows all the access roads that exist or to be constructed for the project will be prepared and distributed to relevant drivers.</li> <li>· Ensuring drivers undergo medical surveillance.</li> </ul> <p>Restricting the circulation of delivery and private vehicles to defined routes and areas, giving preference to 'one-way' circulation, where appropriate.</p>			
<p>4.2.19-Safety Barriers</p> <p>Safety barriers (plastic mobile barriers, cones, tapes, signs...) will be provided to the perimeter of work areas. And keep unauthorized persons out of site.</p>	<p>Ismail Najjar</p>	<p>Before start works</p>	<p>Submit an FIR to Engineer after installation.</p>

<p>In case of injury or accident: The site engineer should call “140” and inform the project manager immediately. In case of a dangerous injury, “Ismail Najjar “will give the first aide before the arriving of the emergency team. Else we will send the injured person to “Jeb Jennin hospital” In all cases the site engineer will fill an insurance paper and submit it to the medical center.</p>			
<p>4.2.20-Labor Rights Ensure that workers have access to and are aware about the internal Grievance Mechanism. Training with induction on GBV/SEAH. Prevention of child labor with age verification. Labor wages are similar to the local market. Have access to hygienic, adequate facilities ensuring toilets and changing rooms.</p>	Ismail Najjar	During the execution	<p>KCC will coordinate with Engineer about any appeal on site and within hours.</p> <p>KCC will provide related details including log sheets and escalation mechanism to Engineer.</p>
<b>4.3-Environmental</b>			
<p><b>4.3.1-Air Pollution</b>  Prepare an emergency episode plan for any releases to the atmosphere. Take all necessary measures to</p>	Ismail Najjar	During the execution	Submit a daily report with photos to Engineer

<p>limit pollution from dust and any wind-blown materials during the Works, including damping down with water on a regular basis during dry climatic conditions.</p> <p>Ensure that all trucks leaving the Site are properly covered to prevent discharge of dust, rocks, sand, etc.</p> <p>Well maintained equipment/vehicles will be used to minimize emissions.</p> <p>Vehicles will not be left working unnecessarily.</p> <p>Transportation of equipment/vehicles will be scheduled in a manner to minimize traffic load.</p> <p>Air pollution will be monitored regularly.</p> <p>Vehicles will be maintained on a daily basis (regular morning start up and oil maintenance) and on a monthly basis (general over all maintenance).</p>			
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<p><b>4.3.2-Water Pollution</b></p> <p>We will not dispose of waste solvents, petroleum products, toxic chemicals or solutions in the city drainage system or watercourse.</p> <p>We will not dump or bury garbage on the Site.</p> <p>Waste will be taken to an approved disposal facility regularly, and in accordance with requirements of relevant Authorities.</p> <p>In case of disturbed areas during works, rehabilitation will be carried out progressively as soon as works in each area are completed.</p> <p>An oil spill and contingency plan will be adopted by the contractor during the construction phase to avoid pollution from possible spills (fuel/lubricants).</p> <p>Unnecessary waste of water will not take place during construction works.</p>	<p>Ismail Najjar</p>	<p>During the execution</p>	<p>Submit a daily report with photos to Engineer</p>
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<p>Proper measures will be implemented on-site to reduce the risk of accidental spillage by having appropriate storage facilities and a good practice operational plan, specifically:</p> <p>Fuel, oil and possible chemicals will be stored in designated areas on site, particularly on an impermeable base and within a suitably contained area.</p> <p>Any storage tanks will be positioned to minimize the risks of damage by impact, and should be of sufficient strength and structural integrity; drip trays will be installed underneath equipment such as diesel generators to contain leakages. Drip trays will be kept drained of rainwater;</p> <p>Employees will be trained to be capable of dealing with small scale spill hazards; oil spill response kits to be available on the working area;</p> <p>Collect and reuse or dispose of accordingly all used oils generated on the construction site;</p> <p>Promote “good housekeeping” practices; Inspection will be thoroughly practiced;</p> <p>Sewage from construction camps shall be treated by provision of chemical toilets or other suitable system on-site.</p>			
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<p><b>4.3.3-Solid Waste</b></p> <p>We will maintain the site and any ancillary areas used and occupied for performance of the Works in a clean, tidy and rubbish-free condition</p> <p>We will comply with statutory and municipal regulations and requirements for the disposal of rubbish and waste.</p> <p>We will provide suitable metal containers for the temporary storage of waste.</p> <p>Remove rubbish containers.</p> <p>Provide hard standings for and clear vehicle access to rubbish containers.</p> <p>We will provide enclosed chutes of wood or metal where materials are dropped more than 7 meters</p> <p>Domestic and biodegradable waste from offices, canteens and welfare facilities will be removed from the site.</p> <p>Toxic and hazardous waste will be collected separately and be disposed of in accordance with current regulations.</p> <p>The waste will be properly segregated and separated to encourage recycling of some useful waste materials.</p> <p>An integrated solid waste management system will be integrated through a hierarchy options: source reduction, recycling, composting and refuse.</p> <p>Oils and paints if present, will be disposed of in accordance with regulation</p> <p>Surplus materials will be calculated by the site surveyor (difference in levels method) and will be disposed in a site allocated in coordination with the local municipality.</p> <p>Standards regarding the handling of asbestos Materials</p> <p>We will be responsible for rodent and pest control on the Site.</p>	<p>Ismail Najjar</p>	<p>During the execution</p> <p>As soon as they are full</p> <p>Daily</p>	<p>Submit a daily report with photos to Engineer</p> <p>Submit to the Engineer, for approval, a detailed program of the measures to be taken for the control and eradication of rodents and pests.</p>
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<p><b>4.3.4-Noise Control</b></p> <ul style="list-style-type: none"> <li>· The Contractor shall ensure that the work is conducted in a manner so as to comply with all restrictions of the Authorities having jurisdiction, as they relate to noise.</li> <li>· We will, in all cases, adopt the best practicable means of minimizing noise. For any particular job, the quietest available plant/and or machinery shall be used. All equipment will be maintained in good mechanical order and fitted with the appropriate silencers, mufflers or acoustic covers where applicable. Stationary noise sources shall be sited as far away as possible from noise-sensitive areas, and where necessary acoustic barriers shall be used to shield them. Such barriers may be proprietary types, or may consist of site materials such as bricks or earth mounds as appropriate.</li> <li>· Compressors, percussion tools and vehicles will be fitted with effective silencers of a type recommended by the manufacturers of the equipment. Pneumatic drills and other noisy appliances shall not be used during days of rest or after normal working hours without the consent of the Engineer.</li> <li>· Areas where noise levels exceed 90 decibels, even on a temporary basis, will be posted as high noise level areas.</li> <li>· We will restrict work for normal working hours.</li> <li>· Any machinery which has irregular working use will be shut off (or minimized if impartible) in period of non-use.</li> </ul>	<p>Ismail Najjar</p>	<p>During the execution</p>	<p>Submit a daily report with photos to Engineer</p>
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<p>We will ensure all workers close to noise sources wear PPE (Personal Protective Equipment Especially earmuffs)</p> <ul style="list-style-type: none"> <li>· Noise pollution will be monitored regularly</li> <li>· The equipments include excavators, dozers, trucks, and pickups whici have medium to low noise levels.</li> </ul>			
<p><b>COVID-19 procedures</b>  Since we are facing Covid-19 pandemic, an operating procedure will be implemented which includes:</p> <ul style="list-style-type: none"> <li>· Social distancing between workers and site members.</li> <li>· Using all precautions including sanitizers, masks and gloves.</li> <li>· Increasing awareness of covid-19 for all workers and members.</li> <li>· Health monitoring for all workers including frequently measuring their body temperature.</li> <li>· Notify authorities about any case.</li> </ul>			

## 5) *General notes:*

After taking all notes and feedback on the CESMP, some additional points are to be cleared.

### 5.1- Workers and staff

All workers (their number range from 20 to 50/day), engineers (up to 5 engineers) and staff (up to 12) go to their private homes at the end of the day after works are done. Nobody stays in site after working hours and the camp does not contain any dormitories nor lunch break rooms. There is a strict policy based on the COVID-19 measures that restrain and minimize gatherings.

### 5.2- Covid-19

Lebanon is reporting an increasing number of cases (more than 500 cases daily since August 2020). Multiple emergency periods (lockdowns) were declared officially by the government in Lebanon.

In this period, the measures on site were stricter, and a monthly training for raising awareness toward COVID is held on site to discuss preventive measures on site. All workers and staff are prevented to enter the sites if they do not wear masks and before their temperature is measured as showed.



### 5.3- Safety measures and traffic

Concerning Safety which is a top priority in the project precautions that include PPEs are always taken as shown in the below pictures.

Also, organizing the site and the traffic is done using caution tapes, cones, and guidance signboards

The works are currently away from houses, but whenever we are near houses, we focus to not disturb the habitant by ensuring that the house entrance is always accessible as shown in the photos.

Also, the habitants who are aware of the project grievance mechanism are always informed prior to start of works near their homes.

The municipality have an effective role in fully coordinating between the contractor and the habitants who also have direct contact to the contractor if they want.



Signboards, safety barriers, tapes, and cones are used to maintain traffic safety and prevent road blocking



As part of the safety procedures especially that of COVID-19, all workers wear personal protective equipment including helmets, masks, gloves and jackets.







In case of necessary road blockage, habitants and municipality are told beforehand to ensure full coordination and prevent any disturbance. In addition to the coordination, signage and safety barriers are used to redirect the traffic and ensure its safety.



#### 5.4- Camp Connections

الجمهورية اللبنانية  
وزارة الداخلية والبلديات  
محافظة البقاع  
قضاء البقاع الغربي  
بلدية القرعون


تاريخ : ٢٠٢٠/٩/١٠

عدد : ٢٠٢٠/٥٧٥

لمن يهمه الأمر

إن المكاتب المعتمدة من قبل شركة داني خوري متعهد الأعمال في مشروع الصرف الصحي ومحطات الضخ لبلدية القرعون وبعلول هي موضوعة في عقار تابع للبلدية ( القرعون ) وبقرار من بلدية القرعون .  
وبما أن هذه المكاتب تحتاج للطاقة والمياه والصرف الصحي . فقد قمنا بتأمين الكهرباء والمياه لها بشكل قانوني من الملعب ( ميني فوتبول ) والنادي ، كما أشركنا قسطل الصرف الصحي إلى القسطل المعتمد للملعب .

رئيس بلدية القرعون  
المهندس يحيى محمد ضاهر



This photo is a letter from Quaraoun municipality stating that the camp infrastructure (electricity, water and sewage) is connected to the public networks in coordination with the local municipality.

The camp is located in Baaloul near Quaraoun high school, facing the Quaraoun lake. The camp is used only for offices use by the engineers and is not designated for workers access due to COVID-19 procedures.

More details and information about the camp may be found in Annex G.

## 5.5- Project signboards

Two signboards were installed in the project at the main road entrances (Baaloul entrance, and Qaraoun entrance). The location of these signboards was chosen in coordination with the local municipality.



الجمهورية اللبنانية  
وزارة الداخلية والبلديات  
محافظة البقاع - قضاء البقاع الغربي  
بلدية بعلول  
ص / ١١١

٠٨/٦٣٠١٠٨

### لمن يهمه الأمر

إن رئيس بلدية بعلول،

بناءً على محضر إنتخابه رقم ٣٥١/ص تاريخ ٢٠١٦/٥/١٩،  
يفيد بأن مكان أرمّة تعريف مشروع محطات الضخ للصرف الصحي في بلدة بعلول  
قد تمّ اختياره من قبل بلدية بعلول في المكان المناسب.

رئيس بلدية بعلول  
محمد نصر الدين محي الدين

بعلول في ٢٠٢٠/٩/١٤

بلدية بعلول

رقم التسجيل: ٢٢١

التاريخ: ٢٠٢٠/٩/١٤

The above photo is an official letter from Baaloul municipality stating that the location of the project signboards is picked by the municipality.

الجمهورية اللبنانية  
وزارة الداخلية والبلديات  
محافظة البقاع  
قضاء البقاع الغربي  
بلدية القرعون

تاريخ : ٢٠٢٠/٨/١٠

عدد : ٢٠٢٠/٥٧٦


لمن يهمه الأمر

نفيد نحن بلدية القرعون بأن المكان الذي وضعت فيه آرمة تعريف بالمشروع هو مكان اخترناه

نحن كبلدية في المكان المناسب .

لذا إقتضى التنويه .

رئيس بلدية القرعون  
المهندس يحيى محمد ضاهر



The above photo is an official letter from Quaraoun municipality stating that the location of the project signboards is picked by the municipality.

# APPENDICES

Annex A - Labor plan

Activity Name	Start	Finish	Budgeted Units	2020												2021												2022
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan					
<b>R-30 Skilled labor</b>	07-Jun-20 A	26-May-21		564	1176	3576	2880	2832	5280	5316	4512	2220	3189	2092	803													
Site topographic survey	07-Jun-20 A	18-Jun-20		40																								
Trial pit not exceeding 3m depth	09-Jun-20	22-Jun-20		40																								
Trial trench not exceeding 3m depth	11-Jun-20	23-Jun-20		36																								
Trench excavation	06-Jul-20	16-Aug-20			76	44																						
Sand or gravel bedding and surrounds	08-Jul-20	18-Aug-20			68	52																						
Supply and laying of uPVC pipes and fittings for gr	12-Jul-20	20-Aug-20			60	60																						
Supply and laying of DI pipes and fittings for sewer	14-Jul-20	24-Aug-20			52	68																						
Reinforced concrete bedding and surrounds	30-Jul-20	26-Aug-20			4	76																						
Backfilling of trenches below paved roads and con	30-Jul-20	26-Aug-20			4	76																						
Construction of pre-cast or cast in situ concrete ma	06-Aug-20	02-Sep-20				72	8																					
Manhole neck extensions including concrete cover	06-Aug-20	02-Sep-20				72	8																					
Backfilling of trenches in open areas	10-Aug-20	06-Sep-20				64	16																					
Miscellaneous items	13-Aug-20	09-Sep-20				52	28																					
Road reinstatement	13-Aug-20	09-Sep-20				52	28																					
Road reinstatement	17-Aug-20	13-Sep-20				44	36																					
Road reinstatement	19-Aug-20	15-Sep-20				36	44																					
House connections	20-Aug-20	16-Sep-20				32	48																					
Concrete works	24-Aug-20	20-Sep-20				24	56																					
As-built drawings	16-Sep-20	22-Sep-20					20																					
Site topographic survey	07-Jun-20 A	11-Jun-20		20																								
Trial pit not exceeding 3m depth	14-Jun-20	18-Jun-20		20																								
Trial trench not exceeding 3m depth	21-Jun-20	25-Jun-20		20																								
Trench excavation	28-Jun-20	20-Aug-20		12	88	60																						
Sand or gravel bedding and surrounds	19-Jul-20	10-Sep-20			40	88	32																					
Supply and laying of uPVC pipes and fittings for gr	02-Aug-20	24-Sep-20				88	72																					
Supply and laying of DI pipes and fittings for sewer	18-Aug-20	28-Sep-20				40	80																					
Reinforced concrete bedding and surrounds	08-Sep-20	19-Oct-20					68	52																				
Construction of pre-cast or cast in situ concrete ma	22-Sep-20	16-Nov-20					28	84	48																			
Backfilling of trenches below paved roads and con	27-Sep-20	22-Oct-20					16	64																				
Road reinstatement	29-Sep-20	26-Oct-20					8	72																				
Extra over for external drop manholes	20-Oct-20	16-Nov-20						32	48																			
Miscellaneous items	27-Oct-20	23-Nov-20						12	68																			
House connections	03-Nov-20	30-Nov-20							80																			
Concrete works	10-Nov-20	07-Dec-20							60	20																		
Backfilling of trenches in open areas	17-Nov-20	14-Dec-20							40	40																		
As-built drawings	15-Dec-20	21-Dec-20								20																		
Trench excavation	01-Mar-21	12-Apr-21											89	31														
Sand or gravel bedding and surrounds	08-Mar-21	19-Apr-21											69	51														
Supply and laying of uPVC pipes and fittings for gr	08-Mar-21	19-Apr-21											69	51														
Supply and laying of DI pipes and fittings for sewer	10-Mar-21	07-Apr-21											61	19														
Reinforced concrete bedding and surrounds	17-Mar-21	07-Apr-21											41	19														
Construction of pre-cast or cast in situ concrete ma	07-Apr-21	28-Apr-21												60														
Backfilling of trenches below paved roads and con	07-Apr-21	05-May-21												65	15													
Extra over for external drop manholes	21-Apr-21	12-May-21												25	35													
Miscellaneous items	21-Apr-21	12-May-21												25	35													
House connections	21-Apr-21	12-May-21												25	35													
Concrete works	21-Apr-21	12-May-21												25	35													
Backfilling of trenches in open areas	21-Apr-21	12-May-21												25	35													
Road reinstatement	21-Apr-21	12-May-21												25	35													
As-built drawings	12-May-21	26-May-21													40													
Mobilization	02-Aug-20	10-Aug-20				28																						

Activity Name	Start	Finish	Budgeted Units	2020												2021												2022
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan					
De-Mobilization	25-Nov-20	03-Dec-20								16	12																	
Checking, completing, and/or performing topograp	11-Aug-20	12-Aug-20				8																						
Site clearance	13-Aug-20	19-Aug-20				20																						
Site rearrangement after construction	20-Aug-20	26-Aug-20				20																						
Excavation	27-Aug-20	06-Sep-20				12	16																					
Concrete works	31-Aug-20	27-Sep-20				4	76																					
Plastering	07-Sep-20	04-Oct-20					72	8																				
Waterproofing	14-Sep-20	11-Oct-20					52	28																				
Backfilling	21-Sep-20	18-Oct-20					32	48																				
Metal works	21-Sep-20	18-Oct-20					32	48																				
Metallic shelters to protect the outdoor pumps and	28-Sep-20	25-Oct-20					12	68																				
Fence	19-Oct-20	15-Nov-20						36	44																			
Asphalting	26-Oct-20	22-Nov-20						16	64																			
Motopumpsets	19-Oct-20	08-Nov-20						36	24																			
Piping and accessories	26-Oct-20	15-Nov-20						16	44																			
Portable fire extinguishers	26-Oct-20	15-Nov-20						16	44																			
EDL Electrical Power Transformer	02-Nov-20	22-Nov-20							60																			
Generator set	09-Nov-20	29-Nov-20							60																			
Electrical Lighting system	16-Nov-20	06-Dec-20							44	16																		
Electrical system	16-Nov-20	06-Dec-20							44	16																		
Instrumentation and Control	16-Nov-20	06-Dec-20							44	16																		
Design, supply and installation of a complete surge	16-Nov-20	24-Nov-20							28																			
Mobilization	07-Sep-20	15-Sep-20					28																					
De-Mobilization	14-Dec-20	22-Dec-20								28																		
Checking, completing, and/or performing topograp	16-Sep-20	17-Sep-20					8																					
Site clearance	20-Sep-20	24-Sep-20					20																					
Site rearrangement after construction	27-Sep-20	01-Oct-20					16	4																				
Excavation	04-Oct-20	12-Oct-20						28																				
Concrete works	05-Oct-20	01-Nov-20						76	4																			
Plastering	12-Oct-20	08-Nov-20						56	24																			
Waterproofing	19-Oct-20	15-Nov-20						36	44																			
Backfilling	26-Oct-20	22-Nov-20						16	64																			
Metal works	26-Oct-20	22-Nov-20						16	64																			
Metallic shelters to protect the outdoor pumps and	02-Nov-20	29-Nov-20							80																			
Fence	09-Nov-20	06-Dec-20							64	16																		
Asphalting	16-Nov-20	13-Dec-20							44	36																		
Design, supply and installation of a complete surge	26-Nov-20	06-Dec-20							12	16																		
Instrumentation and Control	26-Nov-20	14-Dec-20							12	40																		
Electrical Lighting system	26-Nov-20	14-Dec-20							12	40																		
Electrical system	26-Nov-20	14-Dec-20							12	40																		
Generator set	26-Nov-20	14-Dec-20							12	40																		
EDL Electrical Power Transformer	26-Nov-20	14-Dec-20							12	40																		
Portable fire extinguishers	25-Nov-20	13-Dec-20							16	36																		
Piping and accessories	24-Nov-20	10-Dec-20							20	32																		
Motopumpsets	23-Nov-20	09-Dec-20							24	28																		
Mobilization	13-Oct-20	21-Oct-20						28																				
De-Mobilization	12-Jan-21	20-Jan-21									28																	
Checking, completing, and/or performing topograp	22-Oct-20	25-Oct-20						8																				
Site clearance	26-Oct-20	01-Nov-20						16	4																			
Site rearrangement after construction	02-Nov-20	08-Nov-20							20																			
Excavation	09-Nov-20	17-Nov-20							28																			
Concrete works	09-Nov-20	06-Dec-20							64	16																		















Activity Name	Start	Finish	Budgeted Units	2020							2021												2022
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Plastering	16-Nov-20	09-Dec-20							44	28													
Backfilling	17-Nov-20	21-Dec-20							40	60													
Waterproofing	19-Nov-20	14-Dec-20							32	40													
Metal works	24-Nov-20	17-Dec-20							20	52													
Metallic shelters to protect the outdoor pumps and	29-Nov-20	22-Dec-20							8	64													
Fence	02-Dec-20	27-Dec-20								72													
Asphalting	07-Dec-20	30-Dec-20								72													
Motopumpsets	20-Dec-20	07-Jan-21								40	20												
Piping and accessories	22-Dec-20	11-Jan-21								32	28												
Portable fire extinguishers	22-Dec-20	11-Jan-21								32	28												
EDL Electrical Power Transformer	22-Dec-20	11-Jan-21								32	28												
Generator set	22-Dec-20	11-Jan-21								32	28												
Electrical Lighting system	22-Dec-20	11-Jan-21								32	28												
Electrical system	22-Dec-20	11-Jan-21								32	28												
Instrumentation and Control	22-Dec-20	11-Jan-21								32	28												
Design, supply and installation of a complete surge	22-Dec-20	11-Jan-21								32	28												
Mobilization	22-Oct-20	01-Nov-20						24	4														
De-Mobilization	31-Jan-21	08-Feb-21									4	24											
Checking, completing, and/or performing topograp	02-Nov-20	03-Nov-20							8														
Site clearance	04-Nov-20	10-Nov-20							20														
Site rearrangement after construction	11-Nov-20	17-Nov-20							20														
Excavation	18-Nov-20	26-Nov-20							28														
Concrete works	19-Nov-20	16-Dec-20							32	48													
Plastering	01-Dec-20	21-Dec-20								60													
Waterproofing	06-Dec-20	24-Dec-20								60													
Backfilling	08-Dec-20	11-Jan-21								72	28												
Metal works	09-Dec-20	29-Dec-20								60													
Metallic shelters to protect the outdoor pumps and	14-Dec-20	10-Jan-21								56	24												
Fence	27-Dec-20	21-Jan-21								20	60												
Asphalting	06-Jan-21	26-Jan-21									60												
Motopumpsets	30-Dec-20	26-Jan-21								8	72												
Piping and accessories	03-Jan-21	28-Jan-21									80												
Portable fire extinguishers	03-Jan-21	28-Jan-21									80												
EDL Electrical Power Transformer	03-Jan-21	28-Jan-21									80												
Generator set	03-Jan-21	28-Jan-21									80												
Electrical Lighting system	03-Jan-21	28-Jan-21									80												
Electrical system	03-Jan-21	28-Jan-21									80												
Instrumentation and Control	03-Jan-21	28-Jan-21									80												
Design, supply and installation of a complete surge	03-Jan-21	28-Jan-21									80												
De-Mobilization	15-Mar-21	23-Mar-21											28										
Mobilization	29-Nov-20	10-Dec-20							8	32													
Checking, completing, and/or performing topograp	13-Dec-20	24-Dec-20								40													
Site clearance	15-Dec-20	28-Dec-20								40													
Site rearrangement after construction	17-Dec-20	30-Dec-20								40													
Excavation	31-Dec-20	10-Jan-21								4	24												
Concrete works	03-Jan-21	28-Jan-21									80												
Plastering	13-Jan-21	02-Feb-21									52	8											
Waterproofing	18-Jan-21	07-Feb-21									40	20											
Backfilling	21-Jan-21	24-Feb-21									28	72											
Metal works	21-Jan-21	10-Feb-21									28	32											
Metallic shelters to protect the outdoor pumps and	26-Jan-21	15-Feb-21									16	44											
Fence	09-Feb-21	01-Mar-21										56	4										

Activity Name	Start	Finish	Budgeted Units	2020												2021												2022
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan					
Asphalting	14-Feb-21	01-Mar-21											44	4														
Motopumpsets	11-Feb-21	22-Feb-21											32															
Piping and accessories	14-Feb-21	23-Feb-21											32															
Portable fire extinguishers	14-Feb-21	23-Feb-21											32															
EDL Electrical Power Transformer	15-Feb-21	14-Mar-21											40	40														
Generator set	15-Feb-21	14-Mar-21											40	40														
Electrical Lighting system	15-Feb-21	14-Mar-21											40	40														
Electrical system	15-Feb-21	16-Feb-21											8															
Instrumentation and Control	15-Feb-21	14-Mar-21											40	40														
Design, supply and installation of a complete surge	15-Feb-21	14-Mar-21											40	40														
Site rearrangement after construction	01-Feb-21	14-Feb-21											40															
Mobilization	11-Jan-21	19-Jan-21										28																
De-Mobilization	19-Apr-21	27-Apr-21														28												
Checking, completing, and/or performing topograp	20-Jan-21	02-Feb-21										32	8															
Site clearance	26-Jan-21	08-Feb-21										16	24															
Excavation	15-Feb-21	23-Feb-21											28															
Concrete works	16-Feb-21	15-Mar-21											36	44														
Plastering	03-Mar-21	16-Mar-21												40														
Waterproofing	04-Mar-21	17-Mar-21												40														
Backfilling	08-Mar-21	11-Apr-21												72	28													
Metal works	08-Mar-21	21-Mar-21												40														
Metallic shelters to protect the outdoor pumps and	10-Mar-21	30-Mar-21												60														
Fence	31-Mar-21	13-Apr-21												4	36													
Asphalting	05-Apr-21	18-Apr-21													40													
Motopumpsets	22-Mar-21	04-Apr-21												32	8													
Piping and accessories	24-Mar-21	06-Apr-21												24	16													
Portable fire extinguishers	24-Mar-21	06-Apr-21												24	16													
EDL Electrical Power Transformer	24-Mar-21	06-Apr-21												24	16													
Generator set	24-Mar-21	06-Apr-21												24	16													
Electrical Lighting system	24-Mar-21	06-Apr-21												24	16													
Electrical system	24-Mar-21	06-Apr-21												24	16													
Instrumentation and Control	24-Mar-21	06-Apr-21												24	16													
<b>R-37 Unskilled labor</b>	<b>07-Jun-20 A</b>	<b>26-May-21</b>		<b>376</b>	<b>784</b>	<b>2384</b>	<b>1920</b>	<b>1888</b>	<b>3520</b>	<b>3544</b>	<b>3008</b>	<b>1480</b>	<b>2126</b>	<b>1394</b>	<b>536</b>													
Instrumentation and Control	24-Mar-21	06-Apr-21												48	32													
Electrical system	24-Mar-21	06-Apr-21												48	32													
Electrical Lighting system	24-Mar-21	06-Apr-21												48	32													
Generator set	24-Mar-21	06-Apr-21												48	32													
EDL Electrical Power Transformer	24-Mar-21	06-Apr-21												48	32													
Portable fire extinguishers	24-Mar-21	06-Apr-21												48	32													
Piping and accessories	24-Mar-21	06-Apr-21												48	32													
Motopumpsets	22-Mar-21	04-Apr-21												64	16													
Asphalting	05-Apr-21	18-Apr-21													80													
Fence	31-Mar-21	13-Apr-21												8	72													
Metallic shelters to protect the outdoor pumps a	10-Mar-21	30-Mar-21												120														
Metal works	08-Mar-21	21-Mar-21												80														
Backfilling	08-Mar-21	11-Apr-21												144	56													
Waterproofing	04-Mar-21	17-Mar-21												80														
Plastering	03-Mar-21	16-Mar-21												80														
Concrete works	16-Feb-21	15-Mar-21											72	88														
Excavation	15-Feb-21	23-Feb-21												56														
Checking, completing, and/or performing topogri	20-Jan-21	02-Feb-21										64	16															
Site rearrangement after construction	01-Feb-21	14-Feb-21											80															

Activity Name	Start	Finish	Budgeted Units	2020							2021												2022
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Site clearance	26-Jan-21	08-Feb-21										32	48										
De-Mobilization	19-Apr-21	27-Apr-21														56							
Mobilization	11-Jan-21	19-Jan-21										56											
Design, supply and installation of a complete su	15-Feb-21	14-Mar-21											80	80									
Instrumentation and Control	15-Feb-21	14-Mar-21											80	80									
Electrical system	15-Feb-21	16-Feb-21											16										
Electrical Lighting system	15-Feb-21	14-Mar-21											80	80									
Generator set	15-Feb-21	14-Mar-21											80	80									
EDL Electrical Power Transformer	15-Feb-21	14-Mar-21											80	80									
Portable fire extinguishers	14-Feb-21	23-Feb-21											64										
Piping and accessories	14-Feb-21	23-Feb-21											64										
Motopumpsets	11-Feb-21	22-Feb-21											64										
Asphalting	14-Feb-21	01-Mar-21											88	8									
Fence	09-Feb-21	01-Mar-21											112	8									
Metallic shelters to protect the outdoor pumps a	26-Jan-21	15-Feb-21										32	88										
Metal works	21-Jan-21	10-Feb-21										56	64										
Backfilling	21-Jan-21	24-Feb-21										56	144										
Waterproofing	18-Jan-21	07-Feb-21										80	40										
Plastering	13-Jan-21	02-Feb-21										104	16										
Concrete works	03-Jan-21	28-Jan-21										160											
Excavation	31-Dec-20	10-Jan-21									8	48											
Site rearrangement after construction	17-Dec-20	30-Dec-20									80												
Site clearance	15-Dec-20	28-Dec-20									80												
Checking, completing, and/or performing topogr	13-Dec-20	24-Dec-20									80												
Mobilization	29-Nov-20	10-Dec-20								16	64												
De-Mobilization	15-Mar-21	23-Mar-21													56								
Design, supply and installation of a complete su	03-Jan-21	28-Jan-21										160											
Instrumentation and Control	03-Jan-21	28-Jan-21										160											
Electrical system	03-Jan-21	28-Jan-21										160											
Electrical Lighting system	03-Jan-21	28-Jan-21										160											
Generator set	03-Jan-21	28-Jan-21										160											
EDL Electrical Power Transformer	03-Jan-21	28-Jan-21										160											
Portable fire extinguishers	03-Jan-21	28-Jan-21										160											
Piping and accessories	03-Jan-21	28-Jan-21										160											
Motopumpsets	30-Dec-20	26-Jan-21									16	144											
Asphalting	06-Jan-21	26-Jan-21										120											
Fence	27-Dec-20	21-Jan-21									40	120											
Metallic shelters to protect the outdoor pumps a	14-Dec-20	10-Jan-21									112	48											
Metal works	09-Dec-20	29-Dec-20									120												
Backfilling	08-Dec-20	11-Jan-21									144	56											
Waterproofing	06-Dec-20	24-Dec-20									120												
Plastering	01-Dec-20	21-Dec-20									120												
Concrete works	19-Nov-20	16-Dec-20								64	96												
Excavation	18-Nov-20	26-Nov-20								56													
Site rearrangement after construction	11-Nov-20	17-Nov-20								40													
Site clearance	04-Nov-20	10-Nov-20								40													
Checking, completing, and/or performing topogr	02-Nov-20	03-Nov-20								16													
De-Mobilization	31-Jan-21	08-Feb-21										8	48										
Mobilization	22-Oct-20	01-Nov-20						48	8														
Design, supply and installation of a complete su	22-Dec-20	11-Jan-21									64	56											
Instrumentation and Control	22-Dec-20	11-Jan-21									64	56											
Electrical system	22-Dec-20	11-Jan-21									64	56											

Activity Name	Start	Finish	Budgeted Units	2020						2021												2022	
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Electrical Lighting system	22-Dec-20	11-Jan-21									64	56											
Generator set	22-Dec-20	11-Jan-21									64	56											
EDL Electrical Power Transformer	22-Dec-20	11-Jan-21									64	56											
Portable fire extinguishers	22-Dec-20	11-Jan-21									64	56											
Piping and accessories	22-Dec-20	11-Jan-21									64	56											
Motopumpsets	20-Dec-20	07-Jan-21									80	40											
Asphalting	07-Dec-20	30-Dec-20									144												
Fence	02-Dec-20	27-Dec-20									144												
Metallic shelters to protect the outdoor pumps a	29-Nov-20	22-Dec-20										16	128										
Metal works	24-Nov-20	17-Dec-20										40	104										
Waterproofing	19-Nov-20	14-Dec-20										64	80										
Backfilling	17-Nov-20	21-Dec-20										80	120										
Plastering	16-Nov-20	09-Dec-20										88	56										
Concrete works	09-Nov-20	06-Dec-20										128	32										
Excavation	09-Nov-20	17-Nov-20										56											
Site rearrangement after construction	02-Nov-20	08-Nov-20										40											
Site clearance	26-Oct-20	01-Nov-20										32	8										
Checking, completing, and/or performing topogr	22-Oct-20	25-Oct-20										16											
De-Mobilization	12-Jan-21	20-Jan-21																					
Mobilization	13-Oct-20	21-Oct-20																					
Design, supply and installation of a complete su	26-Nov-20	06-Dec-20																					
Instrumentation and Control	26-Nov-20	14-Dec-20																					
Electrical system	26-Nov-20	14-Dec-20																					
Electrical Lighting system	26-Nov-20	14-Dec-20																					
Generator set	26-Nov-20	14-Dec-20																					
EDL Electrical Power Transformer	26-Nov-20	14-Dec-20																					
Portable fire extinguishers	25-Nov-20	13-Dec-20																					
Piping and accessories	24-Nov-20	10-Dec-20																					
Motopumpsets	23-Nov-20	09-Dec-20																					
Asphalting	16-Nov-20	13-Dec-20																					
Fence	09-Nov-20	06-Dec-20																					
Metallic shelters to protect the outdoor pumps a	02-Nov-20	29-Nov-20																					
Metal works	26-Oct-20	22-Nov-20																					
Backfilling	26-Oct-20	22-Nov-20																					
Waterproofing	19-Oct-20	15-Nov-20																					
Plastering	12-Oct-20	08-Nov-20																					
Concrete works	05-Oct-20	01-Nov-20																					
Excavation	04-Oct-20	12-Oct-20																					
Site rearrangement after construction	27-Sep-20	01-Oct-20																					
Site clearance	20-Sep-20	24-Sep-20																					
Checking, completing, and/or performing topogr	16-Sep-20	17-Sep-20																					
De-Mobilization	14-Dec-20	22-Dec-20																					
Mobilization	07-Sep-20	15-Sep-20																					
Instrumentation and Control	16-Nov-20	06-Dec-20																					
Design, supply and installation of a complete su	16-Nov-20	24-Nov-20																					
Electrical system	16-Nov-20	06-Dec-20																					
Electrical Lighting system	16-Nov-20	06-Dec-20																					
Generator set	09-Nov-20	29-Nov-20																					
EDL Electrical Power Transformer	02-Nov-20	22-Nov-20																					
Portable fire extinguishers	26-Oct-20	15-Nov-20																					
Piping and accessories	26-Oct-20	15-Nov-20																					
Motopumpsets	19-Oct-20	08-Nov-20																					

Activity Name	Start	Finish	Budgeted Units	2020												2021												2022
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan					
Asphalting	26-Oct-20	22-Nov-20						32	128																			
Fence	19-Oct-20	15-Nov-20						72	88																			
Metallic shelters to protect the outdoor pumps a	28-Sep-20	25-Oct-20					24	136																				
Metal works	21-Sep-20	18-Oct-20					64	96																				
Backfilling	21-Sep-20	18-Oct-20					64	96																				
Waterproofing	14-Sep-20	11-Oct-20					104	56																				
Plastering	07-Sep-20	04-Oct-20					144	16																				
Concrete works	31-Aug-20	27-Sep-20				8	152																					
Excavation	27-Aug-20	06-Sep-20				24	32																					
Site rearrangement after construction	20-Aug-20	26-Aug-20				40																						
Site clearance	13-Aug-20	19-Aug-20				40																						
Checking, completing, and/or performing topogr	11-Aug-20	12-Aug-20				16																						
De-Mobilization	25-Nov-20	03-Dec-20								32	24																	
Mobilization	02-Aug-20	10-Aug-20				56																						
As-built drawings	12-May-21	26-May-21																				80						
Road reinstatement	21-Apr-21	12-May-21																				49 71						
Backfilling of trenches in open areas	21-Apr-21	12-May-21																				49 71						
Concrete works	21-Apr-21	12-May-21																				49 71						
House connections	21-Apr-21	12-May-21																				49 71						
Miscellaneous items	21-Apr-21	12-May-21																				49 71						
Extra over for external drop manholes	21-Apr-21	12-May-21																				49 71						
Backfilling of trenches below paved roads and c	07-Apr-21	05-May-21																				129 31						
Construction of pre-cast or cast in situ concrete	07-Apr-21	28-Apr-21																				120						
Reinforced concrete bedding and surrounds	17-Mar-21	07-Apr-21																				81 39						
Supply and laying of DI pipes and fittings for se	10-Mar-21	07-Apr-21																				121 39						
Supply and laying of uPVC pipes and fittings for	08-Mar-21	19-Apr-21																				137 103						
Sand or gravel bedding and surrounds	08-Mar-21	19-Apr-21																				137 103						
Trench excavation	01-Mar-21	12-Apr-21																				177 63						
As-built drawings	15-Dec-20	21-Dec-20																				40						
Backfilling of trenches in open areas	17-Nov-20	14-Dec-20																				80 80						
Concrete works	10-Nov-20	07-Dec-20																				120 40						
House connections	03-Nov-20	30-Nov-20																				160						
Miscellaneous items	27-Oct-20	23-Nov-20																				24 136						
Extra over for external drop manholes	20-Oct-20	16-Nov-20																				64 96						
Road reinstatement	29-Sep-20	26-Oct-20																				16 144						
Backfilling of trenches below paved roads and c	27-Sep-20	22-Oct-20																				32 128						
Construction of pre-cast or cast in situ concrete	22-Sep-20	16-Nov-20																				56 168 96						
Reinforced concrete bedding and surrounds	08-Sep-20	19-Oct-20																				136 104						
Supply and laying of DI pipes and fittings for se	18-Aug-20	28-Sep-20																				80 160						
Supply and laying of uPVC pipes and fittings for	02-Aug-20	24-Sep-20																				176 144						
Sand or gravel bedding and surrounds	19-Jul-20	10-Sep-20																				80 176 64						
Trench excavation	28-Jun-20	20-Aug-20																				24 176 120						
Trial trench not exceeding 3m depth	21-Jun-20	25-Jun-20																				40						
Trial pit not exceeding 3m depth	14-Jun-20	18-Jun-20																				40						
Site topographic survey	07-Jun-20 A	11-Jun-20																				40						
As-built drawings	16-Sep-20	22-Sep-20																				40						
Concrete works	24-Aug-20	20-Sep-20																				48 112						
House connections	20-Aug-20	16-Sep-20																				64 96						
Road reinstatement	19-Aug-20	15-Sep-20																				72 88						
Road reinstatement	17-Aug-20	13-Sep-20																				88 72						
Road reinstatement	13-Aug-20	09-Sep-20																				104 56						
Miscellaneous items	13-Aug-20	09-Sep-20																				104 56						

Activity Name	Start	Finish	Budgeted Units	2020												2021												2022
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan					
 Backfilling of trenches in open areas	10-Aug-20	06-Sep-20				128	32																					
 Manhole neck extensions including concrete co	06-Aug-20	02-Sep-20				144	16																					
 Construction of pre-cast or cast in situ concrete	06-Aug-20	02-Sep-20				144	16																					
 Backfilling of trenches below paved roads and c	30-Jul-20	26-Aug-20			8	152																						
 Reinforced concrete bedding and surrounds	30-Jul-20	26-Aug-20			8	152																						
 Supply and laying of DI pipes and fittings for se	14-Jul-20	24-Aug-20			104	136																						
 Supply and laying of uPVC pipes and fittings fo	12-Jul-20	20-Aug-20			120	120																						
 Sand or gravel bedding and surrounds	08-Jul-20	18-Aug-20			136	104																						
 Trench excavation	06-Jul-20	16-Aug-20			152	88																						
 Trial trench not exceeding 3m depth	11-Jun-20	23-Jun-20		72																								
 Trial pit not exceeding 3m depth	09-Jun-20	22-Jun-20		80																								
 Site topographic survey	07-Jun-20 A	18-Jun-20		80																								

Annex B

Program of work																			22-Jul-20 18:24				
Activity ID	Activity Name	Original duration	Start	Finish	Total Float	2020												2021					
						Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul				
<b>Total</b>						0																	
<b>CONSTRUCTION OF ADDITIONAL PROJECT MILESTONE</b>						0																	
PM100	Project notice to commence	0	27-May-20		40	◆ Project notice to commence																	
PM110	Contractual commencement	0	07-Jun-20		40	◆ Contractual commencement of works																	
PM120	Complete the works	0		26-May-21	0	◆ Complete the works																	
<b>ENGINEERING</b>						33																	
<b>SHOP DRAWINGS SUBMITTALS</b>						31																	
DS230	C-Q shop drawings submittals Part (1)	7	08-Jun-20	16-Jun-20	50	0% C-Q shop drawings submittals Part (1)																	
DS220	C-B shop drawing submittals Part (1)	7	25-Jun-20 A	05-Jul-20 A		100% C-B shop drawing submittals Part (1)																	
DS311	C-B shop drawing submittals Part (2)	7	07-Jul-20 A	16-Jul-20 A		100% C-B shop drawing submittals Part (2)																	
DS312	C-B shop drawing submittals Part (3)	7	08-Jul-20	16-Jul-20	99	0% C-B shop drawing submittals Part (3)																	
DS314	C-Q shop drawings submittals Part (2)	7	13-Jul-20	21-Jul-20	50	0% C-Q shop drawings submittals Part (2)																	
DS313	C-B shop drawing submittals Part (4)	7	19-Jul-20	27-Jul-20	99	0% C-B shop drawing submittals Part (4)																	
DS315	C-Q shop drawings submittals Part (3)	7	29-Jul-20	06-Aug-20	50	0% C-Q shop drawings submittals Part (3)																	
DS100	A-PS1 shop drawing submittals	7	11-Aug-20	19-Aug-20	123	0% A-PS1 shop drawing submittals																	
DS316	C-Q shop drawings submittals Part (4)	7	19-Aug-20	27-Aug-20	50	0% C-Q shop drawings submittals Part (4)																	
DS317	C-Q shop drawings submittals Part (5)	7	02-Sep-20	10-Sep-20	50	0% C-Q shop drawings submittals Part (5)																	
DS110	A-PS2 shop drawings submittals	7	15-Sep-20	23-Sep-20	111	0% A-PS2 shop drawings submittals																	
DS318	C-Q shop drawings submittals Part (6)	7	24-Sep-20	04-Oct-20	50	0% C-Q shop drawings submittals Part (6)																	
DS160	B-PS1 shop drawing submittals	7	29-Sep-20	07-Oct-20	123	0% B-PS1 shop drawing submittals																	
DS319	C-Q shop drawings submittals Part (7)	7	05-Oct-20	13-Oct-20	50	0% C-Q shop drawings submittals Part (7)																	

Remaining Work     ◆ Milestone  
 Critical Remaining Work     ■ % Complete

Activity ID	Activity Name	Original duration	Start	Finish	Total Float	2020												2021							
						Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul						
DS320	C-Q shop drawings submittals Part (8)	7	14-Oct-20	22-Oct-20	50					0%															
DS120	A-PS3 shop drawings submittals	7	20-Oct-20	28-Oct-20	90					0%															
DS130	A-PS4 shop drawings submittals	7	01-Nov-20	09-Nov-20	31						0%														
DS170	B-PS2 shop drawings submittals	7	03-Nov-20	11-Nov-20	116							0%													
DS180	B-PS3 shop drawings submittals	7	30-Nov-20	08-Dec-20	90								0%												
DS190	B-PS4 shop drawings submittals	7	10-Dec-20	20-Dec-20	77									0%											
DS140	A-PS5 shop drawings submittals	7	14-Dec-20	22-Dec-20	32										0%										
DS200	B-PS5 shop drawings submittals	7	24-Jan-21	01-Feb-21	46											0%									
DS150	A-PS6 shop drawings submittals	7	27-Jan-21	04-Feb-21	21												0%								
DS210	B-PS6 shop drawings submittals	7	02-Mar-21	10-Mar-21	29													0%							
<b>DRAWINGS APPROVALS</b>		<b>198</b>	<b>17-Jun-20</b>	<b>21-Mar-21</b>	<b>31</b>																				
DS310	C-Q shop drawings approvals Part(1)	7	17-Jun-20	25-Jun-20	50					0%															
DS321	C-B shop drawing approvals Part (2)	7	01-Jul-20	09-Jul-20	99					0%															
DS300	C-B shop drawing approvals Part (1)	7	06-Jul-20	14-Jul-20	99					0%															
DS322	C-B shop drawing approvals Part (3)	7	21-Jul-20	29-Jul-20	99						0%														
DS324	C-Q shop drawings approvals Part(2)	7	22-Jul-20	30-Jul-20	50						0%														
DS323	C-B shop drawing approvals Part (4)	7	28-Jul-20	05-Aug-20	99							0%													
DS325	C-Q shop drawings approvals Part(3)	7	09-Aug-20	17-Aug-20	50								0%												
DA100	A-PS1 shop drawing approvals	7	20-Aug-20	30-Aug-20	123														0%						

Remaining Work   
  Critical Remaining Work   
  Milestone   
  % Complete



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2020												2021							
						Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul						
						DS326	C-Q shop drawings approvals Part(4)	7	30-Aug-20	07-Sep-20	50				0%										
DS327	C-Q shop drawings approvals Part(5)	7	13-Sep-20	21-Sep-20	50				0%																
DA110	A-PS2 shop drawings approvals	7	24-Sep-20	04-Oct-20	111				0%																
DS240	B-PS1 shop drawing approvals	7	08-Oct-20	18-Oct-20	123					0%															
DS328	C-Q shop drawings approvals Part(6)	7	11-Oct-20	19-Oct-20	50					0%															
DS329	C-Q shop drawings approvals Part(7)	7	18-Oct-20	26-Oct-20	50					0%															
DS330	C-Q shop drawings approvals Part(8)	7	25-Oct-20	02-Nov-20	50					0%															
DA120	A-PS3 shop drawings approvals	7	29-Oct-20	08-Nov-20	90					0%															
DA130	A-PS4 shop drawings approvals	7	10-Nov-20	18-Nov-20	31						0%														
DS250	B-PS2 shop drawings approvals	7	12-Nov-20	22-Nov-20	116						0%														
DS260	B-PS3 shop drawings approvals	7	09-Dec-20	17-Dec-20	90							0%													
DS270	B-PS4 shop drawings approvals	7	21-Dec-20	29-Dec-20	77								0%												
DA140	A-PS5 shop drawings approvals	7	23-Dec-20	31-Dec-20	32									0%											
DS280	B-PS5 shop drawings approvals	7	02-Feb-21	10-Feb-21	46										0%										
DA150	A-PS6 shop drawings approvals	7	07-Feb-21	15-Feb-21	21											0%									
DS290	B-PS6 shop drawings approvals	7	11-Mar-21	21-Mar-21	29												0%								
<b>MATERIALS SUBMITTALS</b>		<b>102</b>	<b>27-May-20</b>	<b>15-Oct-20</b>	<b>123</b>																				
MS470	PVC pipes and fittings	7	27-May-20	04-Jun-20	99	0%	PVC pipes and fittings																		
MS480	DI pipes and fittings	7	27-May-20	04-Jun-20	99	0%	DI pipes and fittings																		
MS490	Manhole cover and frame	7	18-Jun-20	28-Jun-20	99	0%	Manhole cover and frame																		
MS100	Concrete works and accessories	7	13-Jul-20	21-Jul-20	123	0%	Concrete works and accessories																		
MS110	Plastering	7	20-Jul-20	28-Jul-20	123	0%	Plastering																		

Remaining Work    
  Critical Remaining Work    
  Milestone    
  % Complete

Activity ID	Activity Name	Original uration	Start	Finish	Total Float	2020												2021															
						Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul														
						Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul														
MS120	Waterproofing	7	27-Jul-20	04-Aug-20	123			0% Waterproofing																									
MS130	Metal works	7	03-Aug-20	11-Aug-20	123			0% Metal works																									
MS140	Metallic shelters to protect the outdoor pumps and	7	10-Aug-20	18-Aug-20	136			0% Metallic shelters to protect the outdoor pumps and																									
MS150	Fence	7	31-Aug-20	08-Sep-20	126				0% Fence																								
MS170	Motopumpsets	7	31-Aug-20	08-Sep-20	123				0% Motopumpsets																								
MS220	Piping and accessories	7	07-Sep-20	15-Sep-20	123				0% Piping and accessories																								
MS240	Portable fire extinguishers	7	07-Sep-20	15-Sep-20	123				0% Portable fire extinguishers																								
MS250	EDL Electrical Power Transformer	7	14-Sep-20	22-Sep-20	123				0% EDL Electrical Power Transformer																								
MS160	Asphalting	7	16-Sep-20	24-Sep-20	126				0% Asphalting																								
MS260	Generator set	7	21-Sep-20	29-Sep-20	123				0% Generator set																								
MS330	Electrical Lighting system	7	28-Sep-20	06-Oct-20	123				0% Electrical Lighting system																								
MS370	Electrical system	7	06-Oct-20	15-Oct-20	123				0% Electrical system																								
MS400	Instrumentation and Control	7	07-Oct-20	15-Oct-20	123				0% Instrumentation and Control																								
<b>MATERIALS APPROVALS</b>		102	07-Jun-20	26-Oct-20	123																												
MA470	PVC pipes and fittings	7	07-Jun-20	15-Jun-20	99			0% PVC pipes and fittings																									
MA480	DI pipes and fittings	7	07-Jun-20	15-Jun-20	99			0% DI pipes and fittings																									
MA490	Manhole cover and frame	7	29-Jun-20	07-Jul-20	99			0% Manhole cover and frame																									
MA100	Concrete works and accessories	7	22-Jul-20	30-Jul-20	123			0% Concrete works and accessories																									
MA110	Plastering	7	29-Jul-20	06-Aug-20	123			0% Plastering																									
MA120	Waterproofing	7	05-Aug-20	13-Aug-20	123			0% Waterproofing																									
MA130	Metal works	7	12-Aug-20	20-Aug-20	123			0% Metal works																									
MA140	Metallic shelters to protect the outdoor pumps and	7	19-Aug-20	27-Aug-20	136			0% Metallic shelters to protect the outdoor pumps and																									
MA150	Fence	7	09-Sep-20	17-Sep-20	126				0% Fence																								
MA170	Motopumpsets	7	09-Sep-20	17-Sep-20	123				0% Motopumpsets																								
MA220	Piping and accessories	7	16-Sep-20	24-Sep-20	123				0% Piping and accessories																								
MA240	Portable fire extinguishers	7	16-Sep-20	24-Sep-20	123				0% Portable fire extinguishers																								
MA250	EDL Electrical Power Transformer	7	23-Sep-20	01-Oct-20	123				0% EDL Electrical Power Transformer																								
MA160	Asphalting	7	27-Sep-20	05-Oct-20	126				0% Asphalting																								
MA260	Generator set	7	30-Sep-20	08-Oct-20	123				0% Generator set																								
MA330	Electrical Lighting system	7	07-Oct-20	15-Oct-20	123				0% Electrical Lighting system																								
MA370	Electrical system	7	15-Oct-20	26-Oct-20	123				0% Electrical system																								
<b>MATERIALS PROCUREMENT</b>		102	16-Jun-20	04-Nov-20	123																												
MP470	PVC pipes and fittings	7	16-Jun-20	24-Jun-20	99			0% PVC pipes and fittings																									
MP480	DI pipes and fittings	7	16-Jun-20	24-Jun-20	99			0% DI pipes and fittings																									
MP490	Manhole cover and frame	7	08-Jul-20	16-Jul-20	99			0% Manhole cover and frame																									

■ Remaining Work      ■ Critical Remaining Work  
◆ Milestone      — % Complete

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2020												2021			
						Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul		
						MP100	Concrete works and accessories	7	02-Aug-20	10-Aug-20	123			0% Concrete works and accessories							
MP110	Plastering	7	09-Aug-20	17-Aug-20	123			0% Plastering													
MP120	Waterproofing	7	16-Aug-20	24-Aug-20	123			0% Waterproofing													
MP130	Metal works	7	23-Aug-20	31-Aug-20	123			0% Metal works													
MP140	Metallic shelters to protect the outdoor pumps and	7	30-Aug-20	07-Sep-20	136			0% Metallic shelters to protect the outdoor pumps and													
MP150	Fence	7	20-Sep-20	28-Sep-20	126				0% Fence												
MP170	Motopumpsets	7	20-Sep-20	28-Sep-20	123				0% Motopumpsets												
MP220	Piping and accessories	7	27-Sep-20	05-Oct-20	123				0% Piping and accessories												
MP240	Portable fire extinguishers	7	27-Sep-20	05-Oct-20	123				0% Portable fire extinguishers												
MP250	EDL Electrical Power Transformer	7	04-Oct-20	12-Oct-20	123				0% EDL Electrical Power Transformer												
MP160	Asphalting	7	06-Oct-20	14-Oct-20	126				0% Asphalting												
MP260	Generator set	7	11-Oct-20	19-Oct-20	123				0% Generator set												
MP330	Electrical Lighting system	7	18-Oct-20	26-Oct-20	123				0% Electrical Lighting system												
MP400	Instrumentation and Control	7	18-Oct-20	26-Oct-20	123				0% Instrumentation and Control												
MP370	Electrical system	7	26-Oct-20	04-Nov-20	123				0% Electrical system												
<b>MATERIALS FABRICATION</b>		<b>102</b>	<b>25-Jun-20</b>	<b>15-Nov-20</b>	<b>123</b>																
MFAB470	PVC pipes and fittings	7	25-Jun-20	05-Jul-20	99		0% PVC pipes and fittings														
MFAB480	DI pipes and fittings	7	25-Jun-20	05-Jul-20	99		0% DI pipes and fittings														
MFAB490	Manhole cover and frame	7	19-Jul-20	27-Jul-20	99			0% Manhole cover and frame													
MFAB100	Concrete works and accessories	7	11-Aug-20	19-Aug-20	123			0% Concrete works and accessories													
MFAB110	Plastering	7	18-Aug-20	26-Aug-20	123			0% Plastering													
MFAB120	Waterproofing	7	25-Aug-20	02-Sep-20	123			0% Waterproofing													
MFAB130	Metal works	7	01-Sep-20	09-Sep-20	123			0% Metal works													
MFAB140	Metallic shelters to protect the outdoor pumps and	7	08-Sep-20	16-Sep-20	136			0% Metallic shelters to protect the outdoor pumps and													
MFAB150	Fence	7	29-Sep-20	07-Oct-20	126				0% Fence												
MFAB170	Motopumpsets	7	29-Sep-20	07-Oct-20	123				0% Motopumpsets												
MFAB220	Piping and accessories	7	06-Oct-20	14-Oct-20	123				0% Piping and accessories												
MFAB240	Portable fire extinguishers	7	06-Oct-20	14-Oct-20	123				0% Portable fire extinguishers												
MFAB250	EDL Electrical Power Transformer	7	13-Oct-20	21-Oct-20	123				0% EDL Electrical Power Transformer												
MFAB160	Asphalting	7	15-Oct-20	25-Oct-20	126				0% Asphalting												
MFAB260	Generator set	7	20-Oct-20	28-Oct-20	123				0% Generator set												
MFAB330	Electrical Lighting system	7	27-Oct-20	04-Nov-20	123				0% Electrical Lighting system												
MFAB400	Instrumentation and Control	7	27-Oct-20	04-Nov-20	123				0% Instrumentation and Control												
MFAB380	Electrical system	7	05-Nov-20	15-Nov-20	123				0% Electrical system												
<b>MATERIALS DELIVERY TO SITE</b>		<b>95</b>	<b>06-Jul-20</b>	<b>15-Nov-20</b>	<b>123</b>																
MDEL470	PVC pipes and fittings	7	06-Jul-20	14-Jul-20	99		0% PVC pipes and fittings														

█ Remaining Work     ◆ ◆ Milestone  
█ Critical Remaining Work     ━━ % Complete

Activity ID	Activity Name	Original duration	Start	Finish	Total Float	2020												2021						
						Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul					
MDEL480	DI pipes and fittings	7	06-Jul-20	14-Jul-20	99		0%																	
MDEL490	Manhole cover and frame	7	28-Jul-20	05-Aug-20	99			0%																
MDEL100	Concrete works and accessories	7	20-Aug-20	30-Aug-20	123			0%																
MDEL110	Plastering	7	27-Aug-20	06-Sep-20	123				0%															
MDEL120	Waterproofing	7	03-Sep-20	13-Sep-20	123				0%															
MDEL130	Metal works	7	10-Sep-20	20-Sep-20	123					0%														
MDEL140	Metallic shelters to protect the outdoor pumps and	7	17-Sep-20	27-Sep-20	136					0%														
MDEL150	Fence	7	08-Oct-20	18-Oct-20	126					0%														
MDEL170	Motopumpssets	7	08-Oct-20	18-Oct-20	123					0%														
MDEL220	Piping and accessories	7	15-Oct-20	25-Oct-20	123						0%													
MDEL240	Portable fire extinguishers	7	15-Oct-20	25-Oct-20	123						0%													
MDEL250	EDL Electrical Power Transformer	7	22-Oct-20	01-Nov-20	123						0%													
MDEL160	Asphalting	7	26-Oct-20	03-Nov-20	126						0%													
MDEL260	Generator set	7	29-Oct-20	08-Nov-20	123						0%													
MDEL330	Electrical Lighting system	7	05-Nov-20	15-Nov-20	123							0%												
MDEL370	Electrical system	7	05-Nov-20	15-Nov-20	123							0%												
MDEL400	Instrumentation and Control	7	05-Nov-20	15-Nov-20	123							0%												
<b>BAALOUL SEWER LINES</b>		<b>78</b>	<b>07-Jun-20</b>	<b>22-Sep-20</b>	<b>114</b>																			
CB50	Site topographic survey	10	07-Jun-20	18-Jun-20	114	1%																		
CB60	Trial pit not exceeding 3m depth	10	09-Jun-20	22-Jun-20	114	0%																		
CB70	Trial trench not exceeding 3m depth	9	11-Jun-20	23-Jun-20	114	0%																		
CB100	Trench excavation	30	06-Jul-20	16-Aug-20	99	0%																		
CB110	Sand or gravel bedding and surrounds	30	08-Jul-20	18-Aug-20	99	0%																		
CB120	Supply and laying of uPVC pipes and fittings for gravity main and lateral sewers	30	12-Jul-20	20-Aug-20	99	0%																		
CB130	Supply and laying of DI pipes and fittings for sewer force mains	30	14-Jul-20	24-Aug-20	99	0%																		
CB140	Reinforced concrete bedding and surrounds	20	30-Jul-20	26-Aug-20	99	0%																		
CB210	Backfilling of trenches below paved roads and concrete pavement and staircases	20	30-Jul-20	26-Aug-20	112	0%																		
CB150	Construction of pre-cast or cast in situ concrete manholes	20	06-Aug-20	02-Sep-20	99	0%																		
CB160	Manhole neck extensions including concrete cover and ventilation tube	20	06-Aug-20	02-Sep-20	99	0%																		



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2020												2021						
						Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul					
						Gantt Chart (0% completion bars for various activities)																		
C2Q860	Supply and laying of uPVC pipes and fittings for gravity main and lateral sewers	30	08-Mar-21	19-Apr-21	0	0% Supply and laying of uPVC pipes and fittings																		
C2Q870	Supply and laying of DI pipes and fittings for sewer force mains	20	10-Mar-21	07-Apr-21	0	0% Supply and laying of DI pipes and fittings for sewer force mains																		
C2Q880	Reinforced concrete bedding and surrounds	15	17-Mar-21	07-Apr-21	7	0% Reinforced concrete bedding and surrounds																		
C2Q890	Construction of pre-cast or cast in situ concrete manholes	15	07-Apr-21	28-Apr-21	7	0% Construction of pre-cast or cast in situ concrete manholes																		
C2Q910	Backfilling of trenches below paved roads and concrete pavement and staircases	20	07-Apr-21	05-May-21	0	0% Backfilling of trenches below paved roads and concrete pavement and staircases																		
C2Q900	Extra over for external drop manholes	15	21-Apr-21	12-May-21	0	0% Extra over for external drop manholes																		
C2Q920	Miscellaneous items	15	21-Apr-21	12-May-21	0	0% Miscellaneous items																		
C2Q930	House connections	15	21-Apr-21	12-May-21	0	0% House connections																		
C2Q940	Concrete works	15	21-Apr-21	12-May-21	0	0% Concrete works																		
C2Q950	Backfilling of trenches in open areas	15	21-Apr-21	12-May-21	0	0% Backfilling of trenches in open areas																		
C2Q960	Road reinstatement	15	21-Apr-21	12-May-21	0	0% Road reinstatement																		
C2Q970	As-built drawings	10	12-May-21	26-May-21	0	0% As-built drawings																		
<b>BAALOUL PUMPING STATION(P.S. 1)</b>		<b>91</b>	<b>02-Aug-20</b>	<b>06-Dec-20</b>	<b>123</b>																			
<b>MOBILIZATION</b>		<b>90</b>	<b>02-Aug-20</b>	<b>03-Dec-20</b>	<b>124</b>																			
MOB100	Mobilization	7	02-Aug-20*	10-Aug-20	0	0% Mobilization																		
MOB110	De-Mobilization	7	25-Nov-20	03-Dec-20	124	0% De-Mobilization																		
<b>GENERAL</b>		<b>12</b>	<b>11-Aug-20</b>	<b>26-Aug-20</b>	<b>21</b>																			
GEN100	Checking, completing, and/or performing topographic survey and site delimitation	2	11-Aug-20	12-Aug-20	21	0% Checking, completing, and/or performing topographic survey and site delimitation																		
GEN110	Site clearance	5	13-Aug-20	19-Aug-20	21	0% Site clearance																		
GEN120	Site rearrangement after construction	5	20-Aug-20	26-Aug-20	21	0% Site rearrangement after construction																		
<b>CIVIL WORKS</b>		<b>62</b>	<b>27-Aug-20</b>	<b>22-Nov-20</b>	<b>126</b>																			
APS1100	Excavation	7	27-Aug-20	06-Sep-20	21	0% Excavation																		
APS1120	Concrete works	20	31-Aug-20	27-Sep-20	123	0% Concrete works																		
APS1130	Plastering	20	07-Sep-20	04-Oct-20	123	0% Plastering																		
APS1140	Waterproofing	20	14-Sep-20	11-Oct-20	123	0% Waterproofing																		
APS1110	Backfilling	20	21-Sep-20	18-Oct-20	126	0% Backfilling																		
APS1150	Metal works	20	21-Sep-20	18-Oct-20	123	0% Metal works																		
APS1160	Metallic shelters to protect the outdoor pumps and	20	28-Sep-20	25-Oct-20	136	0% Metallic shelters to protect the outdoor pumps and																		
APS1170	Fence	20	19-Oct-20	15-Nov-20	126	0% Fence																		
APS1180	Asphalting	20	26-Oct-20	22-Nov-20	126	0% Asphalting																		
<b>ELECTROMECHANICAL WORKS</b>		<b>35</b>	<b>19-Oct-20</b>	<b>06-Dec-20</b>	<b>123</b>																			

■ Remaining Work     ◆ Milestone  
■ Critical Remaining Work     — % Complete

Activity ID	Activity Name	Duration	Start	Finish	Total Float	2020												2021						
						Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul					
BPS1100	Motopumpsets	15	19-Oct-20	08-Nov-20	123						0%													
BPS1110	Piping and accessories	15	26-Oct-20	15-Nov-20	123						0%													
BPS1120	Portable fire extinguishers	15	26-Oct-20	15-Nov-20	123						0%													
BPS1130	EDL Electrical Power Transformer	15	02-Nov-20	22-Nov-20	123						0%													
BPS1140	Generator set	15	09-Nov-20	29-Nov-20	123						0%													
BPS1150	Electrical Lighting system	15	16-Nov-20	06-Dec-20	123						0%													
BPS1160	Electrical system	15	16-Nov-20	06-Dec-20	123						0%													
BPS1170	Instrumentation and Control	15	16-Nov-20	06-Dec-20	123						0%													
BPS1180	Design, supply and installati	7	16-Nov-20	24-Nov-20	124						0%													
<b>BAALLOUL PUMPING STATION(P.S. 2)</b>		<b>77</b>	<b>07-Sep-20</b>	<b>22-Dec-20</b>	<b>111</b>																			
<b>MOBILIZATION</b>		<b>77</b>	<b>07-Sep-20</b>	<b>22-Dec-20</b>	<b>111</b>																			
MOB120	Mobilization	7	07-Sep-20	15-Sep-20	21					0%														
MOB130	De-Mobilization	7	14-Dec-20	22-Dec-20	111												0%							
<b>GENERAL</b>		<b>12</b>	<b>16-Sep-20</b>	<b>01-Oct-20</b>	<b>21</b>																			
GEN130	Checking, completing, and/or performing topographic survey and site delimitation	2	16-Sep-20	17-Sep-20	21					0%														
GEN140	Site clearance	5	20-Sep-20	24-Sep-20	21					0%														
GEN150	Site rearrangement after construction	5	27-Sep-20	01-Oct-20	21					0%														
<b>CIVIL WORKS</b>		<b>51</b>	<b>04-Oct-20</b>	<b>13-Dec-20</b>	<b>111</b>																			
PS22100	Excavation	7	04-Oct-20	12-Oct-20	21						0%													
PS22120	Concrete works	20	05-Oct-20	01-Nov-20	111						0%													
PS22130	Plastering	20	12-Oct-20	08-Nov-20	111						0%													
PS22140	Waterproofing	20	19-Oct-20	15-Nov-20	111						0%													
PS22110	Backfilling	20	26-Oct-20	22-Nov-20	116						0%													
PS22150	Metal works	20	26-Oct-20	22-Nov-20	111						0%													
PS22160	Metallic shelters to protect the outdoor pumps and	20	02-Nov-20	29-Nov-20	111						0%													
PS22170	Fence	20	09-Nov-20	06-Dec-20	111						0%													
PS22180	Asphalting	20	16-Nov-20	13-Dec-20	111						0%													
<b>ELECTROMECHANICAL WORKS</b>		<b>16</b>	<b>23-Nov-20</b>	<b>14-Dec-20</b>	<b>116</b>																			
BPS22100	Motopumpsets	13	23-Nov-20	09-Dec-20	116						0%													
BPS22110	Piping and accessories	13	24-Nov-20	10-Dec-20	116						0%													
BPS22120	Portable fire extinguishers	13	25-Nov-20	13-Dec-20	116						0%													
BPS22130	EDL Electrical Power Transformer	13	26-Nov-20	14-Dec-20	116						0%													
BPS22140	Generator set	13	26-Nov-20	14-Dec-20	116						0%													
BPS22150	Electrical Lighting system	13	26-Nov-20	14-Dec-20	116						0%													
BPS22160	Electrical system	13	26-Nov-20	14-Dec-20	116						0%													
BPS22170	Instrumentation and Control	13	26-Nov-20	14-Dec-20	116						0%													

█ Remaining Work      ◆ Milestone  
█ Critical Remaining Work      — % Complete

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2020												2021						
						Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul					
BPS22180	Design, supply and installation of a complete surge suppression system	7	26-Nov-20	06-Dec-20	116	0% Design, supply and installation of a complete surg...																		
<b>EL QARAAOUN PUMPING STATION(PS.</b>		<b>72</b>	<b>13-Oct-20</b>	<b>20-Jan-21</b>	<b>90</b>																			
<b>MOBILIZATION</b>		<b>72</b>	<b>13-Oct-20</b>	<b>20-Jan-21</b>	<b>90</b>																			
MOB140	Mobilization	7	13-Oct-20	21-Oct-20	21	0% Mobilization																		
MOB150	De-Mobilization	7	12-Jan-21	20-Jan-21	90	0% De-Mobilization																		
<b>GENERAL</b>		<b>12</b>	<b>22-Oct-20</b>	<b>08-Nov-20</b>	<b>90</b>																			
GEN160	Checking, completing, and/or performing topographic survey and site delimitation	2	22-Oct-20	25-Oct-20	90	0% Checking, completing, and/or performing topographi...																		
GEN170	Site clearance	5	26-Oct-20	01-Nov-20	90	0% Site clearance																		
GEN180	Site rearrangement after construction	5	02-Nov-20	08-Nov-20	90	0% Site rearrangement after construction																		
<b>CIVIL WORKS</b>		<b>38</b>	<b>09-Nov-20</b>	<b>30-Dec-20</b>	<b>98</b>																			
PS33100	Excavation	7	09-Nov-20	17-Nov-20	90	0% Excavation																		
PS33120	Concrete works	20	09-Nov-20	06-Dec-20	90	0% Concrete works																		
PS33130	Plastering	18	16-Nov-20	09-Dec-20	90	0% Plastering																		
PS33110	Backfilling	25	17-Nov-20	21-Dec-20	99	0% Backfilling																		
PS33140	Waterproofing	18	19-Nov-20	14-Dec-20	90	0% Waterproofing																		
PS33150	Metal works	18	24-Nov-20	17-Dec-20	90	0% Metal works																		
PS33160	Metallic shelters to protect the outdoor pumps and	18	29-Nov-20	22-Dec-20	98	0% Metallic shelters to protect the outdoor pumps and																		
PS33170	Fence	18	02-Dec-20	27-Dec-20	98	0% Fence																		
PS33180	Asphalting	18	07-Dec-20	30-Dec-20	98	0% Asphalting																		
<b>ELECTROMECHANICAL WORKS</b>		<b>17</b>	<b>20-Dec-20</b>	<b>11-Jan-21</b>	<b>90</b>																			
BPS33100	Motopumpsets	15	20-Dec-20	07-Jan-21	90	0% Motopumpsets																		
BPS33110	Piping and accessories	15	22-Dec-20	11-Jan-21	90	0% Piping and accessories																		
BPS33120	Portable fire extinguishers	15	22-Dec-20	11-Jan-21	90	0% Portable fire extinguishers																		
BPS33130	EDL Electrical Power Transformer	15	22-Dec-20	11-Jan-21	90	0% EDL Electrical Power Transformer																		
BPS33140	Generator set	15	22-Dec-20	11-Jan-21	90	0% Generator set																		
BPS33150	Electrical Lighting system	15	22-Dec-20	11-Jan-21	90	0% Electrical Lighting system																		
BPS33160	Electrical system	15	22-Dec-20	11-Jan-21	90	0% Electrical system																		
BPS33170	Instrumentation and Control	15	22-Dec-20	11-Jan-21	90	0% Instrumentation and Control																		
BPS33180	Design, supply and installation of a complete surge suppression system	15	22-Dec-20	11-Jan-21	90	0% Design, supply and installation of a complete surg...																		
<b>EL QARAAOUN PUMPING STATION(PS.</b>		<b>78</b>	<b>22-Oct-20</b>	<b>08-Feb-21</b>	<b>77</b>																			
<b>MOBILIZATION</b>		<b>78</b>	<b>22-Oct-20</b>	<b>08-Feb-21</b>	<b>77</b>																			
MOB160	Mobilization	7	22-Oct-20	01-Nov-20	21	0% Mobilization																		

■ Remaining Work     ◆ Milestone  
■ Critical Remaining Work     ▬ % Complete



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2020												2021												
						Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul											
																		Jan	Feb	Mar	Apr	May	Jun	Jul						
MOB170	De-Mobilization	7	31-Jan-21	08-Feb-21	77														0%											
<b>GENERAL</b>		12	02-Nov-20	17-Nov-20	21														0%											
GEN190	Checking, completing, and/or performing topographic survey and site delimitation	2	02-Nov-20	03-Nov-20	21														0%											
GEN200	Site clearance	5	04-Nov-20	10-Nov-20	21														0%											
GEN210	Site rearrangement after construction	5	11-Nov-20	17-Nov-20	21														0%											
<b>CIVIL WORKS</b>		50	18-Nov-20	26-Jan-21	79																									
PS44100	Excavation	7	18-Nov-20	26-Nov-20	21														0%											
PS44120	Concrete works	20	19-Nov-20	16-Dec-20	31														0%											
PS44130	Plastering	15	01-Dec-20	21-Dec-20	77														0%											
PS44140	Waterproofing	15	06-Dec-20	24-Dec-20	77														0%											
PS44110	Backfilling	25	08-Dec-20	11-Jan-21	79														0%											
PS44150	Metal works	15	09-Dec-20	29-Dec-20	77														0%											
PS44160	Metallic shelters to protect the outdoor pumps and	20	14-Dec-20	10-Jan-21	80														0%											
PS44170	Fence	20	27-Dec-20	21-Jan-21	79														0%											
PS44180	Asphalting	15	06-Jan-21	26-Jan-21	79														0%											
<b>ELECTROMECHANICAL WORKS</b>		22	30-Dec-20	28-Jan-21	77																									
BPS44100	Motopumpsets	20	30-Dec-20	26-Jan-21	77														0%											
BPS44110	Piping and accessories	20	03-Jan-21	28-Jan-21	77														0%											
BPS44120	Portable fire extinguishers	20	03-Jan-21	28-Jan-21	77														0%											
BPS44130	EDL Electrical Power Transformer	20	03-Jan-21	28-Jan-21	77														0%											
BPS44140	Generator set	20	03-Jan-21	28-Jan-21	77														0%											
BPS44150	Electrical Lighting system	20	03-Jan-21	28-Jan-21	77														0%											
BPS44160	Electrical system	20	03-Jan-21	28-Jan-21	77														0%											
BPS44170	Instrumentation and Control	20	03-Jan-21	28-Jan-21	77														0%											
BPS44180	Design, supply and installation of a complete surge suppression system	20	03-Jan-21	28-Jan-21	77														0%											
<b>EL QARAAOUN PUMPING STATION(P.S.)</b>		83	29-Nov-20	23-Mar-21	46																									
<b>MOBILIZATION</b>		83	29-Nov-20	23-Mar-21	46																									
MOB180	Mobilization	10	29-Nov-20	10-Dec-20	21														0%											
MOB190	De-Mobilization	7	15-Mar-21	23-Mar-21	46																						0%			
<b>GENERAL</b>		14	13-Dec-20	30-Dec-20	21																									
GEN220	Checking, completing, and/or performing topographic survey and site delimitation	10	13-Dec-20	24-Dec-20	21														0%											
GEN230	Site clearance	10	15-Dec-20	28-Dec-20	21														0%											

■ Remaining Work     ◆ Milestone  
■ Critical Remaining Work     ■ % Complete

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2020												2021												
						Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul											
GEN240	Site rearrangement after construction	10	17-Dec-20	30-Dec-20	21									0%																
<b>CIVIL WORKS</b>		43	31-Dec-20	01-Mar-21	55																									
PS55100	Excavation	7	31-Dec-20	10-Jan-21	21													0%												
PS55120	Concrete works	20	03-Jan-21	28-Jan-21	32													0%												
PS55130	Plastering	15	13-Jan-21	02-Feb-21	46													0%												
PS55140	Waterproofing	15	18-Jan-21	07-Feb-21	46													0%												
PS55110	Backfilling	25	21-Jan-21	24-Feb-21	55													0%												
PS55150	Metal works	15	21-Jan-21	10-Feb-21	46													0%												
PS55160	Metallic shelters to protect the outdoor pumps and	15	26-Jan-21	15-Feb-21	62													0%												
PS55170	Fence	15	09-Feb-21	01-Mar-21	55													0%												
PS55180	Asphalting	12	14-Feb-21	01-Mar-21	55													0%												
<b>ELECTROMECHANICAL WORKS</b>		22	11-Feb-21	14-Mar-21	46																									
BPS55100	Motopumpsets	8	11-Feb-21	22-Feb-21	46													0%												
BPS55110	Piping and accessories	8	14-Feb-21	23-Feb-21	46													0%												
BPS55120	Portable fire extinguishers	8	14-Feb-21	23-Feb-21	46													0%												
BPS55130	EDL Electrical Power Transformer	20	15-Feb-21	14-Mar-21	46													0%												
BPS55140	Generator set	20	15-Feb-21	14-Mar-21	46													0%												
BPS55150	Electrical Lighting system	20	15-Feb-21	14-Mar-21	46													0%												
BPS55160	Electrical system	2	15-Feb-21	16-Feb-21	46													0%												
BPS55170	Instrumentation and Control	20	15-Feb-21	14-Mar-21	46													0%												
BPS55180	Design, supply and installation of a complete surge suppression system	20	15-Feb-21	14-Mar-21	46													0%												
<b>EL QARAAOUN PUMPING STATION(P.S.)</b>		77	11-Jan-21	27-Apr-21	21																									
<b>MOBILIZATION</b>		77	11-Jan-21	27-Apr-21	21																									
MOB200	Mobilization	7	11-Jan-21	19-Jan-21	21													0%												
MOB210	De-Mobilization	7	19-Apr-21	27-Apr-21	21																								0%	
<b>GENERAL</b>		18	20-Jan-21	14-Feb-21	21																									
GEN250	Checking, completing, and/or performing topographic survey and site delimitation	10	20-Jan-21	02-Feb-21	21													0%												
GEN260	Site clearance	10	26-Jan-21	08-Feb-21	21													0%												
GEN270	Site rearrangement after construction	10	01-Feb-21	14-Feb-21	21													0%												
<b>CIVIL WORKS</b>		45	15-Feb-21	18-Apr-21	21																									
PS66100	Excavation	7	15-Feb-21	23-Feb-21	21													0%												
PS66120	Concrete works	20	16-Feb-21	15-Mar-21	21													0%												
PS66130	Plastering	10	03-Mar-21	16-Mar-21	21													0%												
PS66140	Waterproofing	10	04-Mar-21	17-Mar-21	21													0%												

Remaining Work
  Critical Remaining Work
  Milestone
  % Complete

Activity ID	Activity Name	Original duration	Start	Finish	Total Float	2020												2021						
						Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul					
						0%																		
PS66110	Backfilling	25	08-Mar-21	11-Apr-21	21												0%	Backfilling						
PS66150	Metal works	10	08-Mar-21	21-Mar-21	29											0%	Metal works							
PS66160	Metallic shelters to protect the outdoor pumps and	15	10-Mar-21	30-Mar-21	29											0%	Metallic shelters to protect the outdoor pumps and							
PS66170	Fence	10	31-Mar-21	13-Apr-21	21											0%	Fence							
PS66180	Asphalting	10	05-Apr-21	18-Apr-21	21											0%	Asphalting							
<b>ELECTROMECHANICAL WORKS</b>		<b>12</b>	<b>22-Mar-21</b>	<b>06-Apr-21</b>	<b>29</b>																			
BPS6100	Motopumpsets	10	22-Mar-21	04-Apr-21	29											0%	Motopumpsets							
BPS6110	Piping and accessories	10	24-Mar-21	06-Apr-21	29											0%	Piping and accessories							
BPS6120	Portable fire extinguishers	10	24-Mar-21	06-Apr-21	29											0%	Portable fire extinguishers							
BPS6130	EDL Electrical Power Transformer	10	24-Mar-21	06-Apr-21	29											0%	EDL Electrical Power Transformer							
BPS6140	Generator set	10	24-Mar-21	06-Apr-21	29											0%	Generator set							
BPS6150	Electrical Lighting system	10	24-Mar-21	06-Apr-21	29											0%	Electrical Lighting system							
BPS6160	Electrical system	10	24-Mar-21	06-Apr-21	29											0%	Electrical system							
BPS6170	Instrumentation and Control	10	24-Mar-21	06-Apr-21	29											0%	Instrumentation and Control							

Remaining Work   
  Critical Remaining Work   
 ◆ ◆ Milestone   
  % Complete

# Annex C

## Code of Conduct for personal

*Report prepared for: The construction of additional sewer lines in Baaloul and Qaraaoun*

Khoury Contracting Company KCC S.A.R.L

We as KCC in cooperation with the Consultant will be obliged to create and maintain an environment which prevents gender-based violence (GBV) and child abuse/exploitation (CAE) issues, and where the unacceptability of GBV and action against children are clearly communicated to all those engaged on the project. In order to prevent GBV and CAE, the following core principle and minimum standards of behavior will apply to all employees without exception:

1. GBV or CAE constitute acts of gross misconduct and are therefore ground for sanction penalties and/or termination of employment. All forms of GBV and CAE including grooming are unacceptable be it on the work site, the work site surroundings, or worker's camp. Prosecution of those who commit GBV or CAE will be pursued.
2. Treat women and children (person under the age of 18) with respect regardless of race, color, language, religion, political, or other opinion, national, ethnic or social origin, property, disability, birth or other status.
3. Don't use language or behavior towards women or children that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
4. Sexual activity with children under 18 –including through digital media is prohibited. Mistaken belief regarding the age of a child and consent from the child is not a defense.
5. Exchange of money, employment, goods, or services for sex, including sexual favors or other forms of humiliating, degrading or exploitative behavior is prohibited.
6. Sexual interactions between contractors and consultants employees at any level and member of the communities surrounding the work place that are not agreed to with full consent by all parties involved in the sexual act are prohibited. This includes relationships involving the withholding, promise of actual provision of benefit (monetary or non-monetary) to community member in exchange for sex.
7. Where an employee develops concern or suspicions regarding acts of GBV or CAE by a fellow worker, whether in the same contracting firm or not, he or she must report such concerns in accordance with standard reporting procedures.
8. All employees are required to attend an induction training course prior to commencing work on site to ensure they are familiar with the GBV and CAE code of conduct.
9. All employees will be required to sign an individual CODE of Conduct confirming their agreement to support GBV and CAE activities.

***Accountability measures to maintain confidentiality can be achieved through the following action:***

- Inform all employees that confidentiality of survivors' personal information in regard to GBV and CAE is of utmost importance.
- Take disciplinary action, including and up to dismissal, against those who breach survivor's confidentiality.

***Financial and other supports to survivors can include***

- *No/low interested loans*
- *Salary advances*
- *Direct payment of medical cost*
- *Upfront payment for medical cost to be recouped from the employee health insurance.*
- *Providing or facilitating access to childcare.*
- *Providing security upgrades to the employees home.*

***Survivors support measures to ensure the safety of the survivor can include:***

Re designing or changing the employee's duty.

Changing the employee's telephone number or email address to avoid harassing contact.

Relocating the employee to another work site.

Providing safe transportation to and from work for a specified period.

***Sanctions to employees who are perpetrators of GBV and CAE include:***

- Informal warning
- Formal warning
- Additional training
- Loss on up of week's salary
- Suspension of employee
- Termination of employment.

<b>Grievance Form</b>	
Reference No :	Date of complaint:
<i>Please enter your contact information and grievance. This information will be dealt with confidential</i>	
<i>Please note: If you wish to remain anonymous please enter your comment/grievance in the box below without indicating any contact information -your comments will still be considered.</i>	
Full Name	
Anonymous submission	I want to remain anonymous
Please mark how you wish to be contacted (mail, telephone, e-mail).	By Mail (Please provide mailing address):
	By Telephone (Please provide Telephone number):
	By E-mail (please provide E-Mail address): _____
Preferred Language for communication	Arabic English : Other please specify:
Description of incident or Grievance:      What happened? Where did it happen? Who did it happen to? What is the result of the problem?	
Date of Incident/Grievance: _____	One time incident/grievance (date      ) Happened more than once (how many times? _) On-going(currently experiencing problem)
What would you like to see happen to resolve the problem?	

## GRIEVANCE FORM

<b>Grievance Form</b>	
رقم الشكوى :	تاريخ الشكوى:
الرجاء ادخال المعلومات اللازمه للاتصال بك بالإضافة للشكوى وكن على ثقة ان هذه المعلومات ستبقى سرية. إذا كنت لا ترغب بالتصريح عن هويتك بإمكانك إدخال الشكوى بدون ذكر اي بيانات شخصية وتؤكد أن الشكوى ستؤخذ بعين الاعتبار.	
الاسم الكامل:	
الكشف أو عدم الكشف عن الهوية:	
عبر الهاتف:الرجاء أدخل رقم الهاتف	كيف ترغب أن نتواصل معك
عبر البريد الإلكتروني: الرجاء إدخال بريدك الإلكتروني	
اللغة: العربية الإنكليزية غير ذلك الرجاء حدد:	
الرجاء شرح الشكوى : ماذا حدث؟ أين حدث؟ من الفاعل؟ وماذا نتج عن ذلك؟	
تاريخ الحادثه:	مرة واحده: الرجاء تحديد تاريخ مرات متعدده : الرجاء ذكر عدد المرات
ماذا تقترح لحل المشكله:	



# Annex E

## Grievance Procedure

*Report prepared for: The construction of additional sewer lines in Baaloul and Qaraaoun*

Khoury Contracting Company KCC S.A.R.L

## 1. **Introduction**

The grievance procedure enables the Company to ensure that any problems, complaints or concerns raised by employees are dealt with in a fair, timely and consistent manner. If an employee has a grievance or complaint regarding:

- 1.1 their work, working conditions, pay and benefits, working hours; or
- 1.2 discrimination on the grounds of race, sex, sexual orientation, religion, disability, age, gender reassignment, marital status or ethnic origin; or
- 1.3 treatment by colleagues including harassment and bullying; or
- 1.4 their health and safety or a breach of statutory employment rights; or
- 1.5 any other issue affecting their employment,

it should be raised in line with this procedure.

Complaints in respect of disciplinary action taken by the Company should be dealt with as an appeal under the disciplinary procedure.

## 2. **Informal Procedure**

- 2.1 Employees should, where possible, discuss the grievance or complaint with their immediate manager on an informal basis first. The manager will discuss any concerns with the employee and attempt to resolve the matter within a reasonable timescale. Where it is not possible for the employee to talk to their immediate manager, or if the grievance concerns him or her, the employee should instead talk to the next most senior person "PM".
- 2.2 Where the informal procedure is used, both parties should keep a written record of the meeting including what was discussed and any proposed action.
- 2.3 If the grievance has not been resolved or cannot be settled informally, the matter should be dealt with in accordance with the formal grievance procedure.

## 3. **Formal Grievance Procedure:**

### 3.1 **Written Statement**

3.3.1 The aggrieved employee must first send a written statement detailing the nature of the grievance to the employee's line manager without unreasonable delay.

3.3.2 Where it is the line manager who is the subject of the Grievance, the employee should instead send the written statement to <<PM>> or another manager of equal or greater seniority, where possible.

## 3.2 Grievance Meeting

- 3.2.1 Upon receiving the written statement, the employee's line manager will arrange for a formal meeting to be held in order to discuss the grievance. The formal meeting will be held without unreasonable delay and usually no longer than << 5>> working days after the statement of grievance is received.
- 3.2.2 The meeting must not take place if the line manager has not had a reasonable opportunity to consider their response to the information.
- 3.2.3 Before the meeting, a thorough investigation of the facts relating to any allegations must take place. Any requests for anonymity and confidentiality should be taken seriously.
- 3.2.4 The employee may, following a reasonable request, be accompanied by a colleague, a suitably certified trade union representative or an official employed by a trade union. The companion may not, however, answer questions on behalf of the employee.
- 3.2.5 The employee's chosen companion will be able to address the meeting to put or sum up the employee's case, as well as confer with the employee during the meeting. They may not, however, answer questions on the employee's behalf, address the meeting if the employee does not wish them to do so or prevent the Company from explaining their case.
- 3.2.6 The Company reserves the right to refuse to accept a companion whose presence may undermine the grievance process.
- 3.2.7 The line manager, employee and their companions shall make every effort to attend the meeting. If the employee fails to attend the grievance hearing without explanation or seems to make insufficient efforts to attend, then the hearing may proceed in the employee's absence.
- 3.2.8 If possible, the employee should explain how they think the grievance could be resolved.
- 3.2.9 If a further investigation of the matter is required then the meeting should be adjourned to a later date before a decision is taken about how to deal with the employee's grievance.

## 3.3 Outcome of meeting

- 3.3.1 Following the meeting and investigation and without unreasonable delay, the line manager shall set out in writing the outcome of the hearing and any action they intend to take to resolve the grievance (if appropriate).
- 3.3.2 The line manager shall also inform the employee of their right to appeal if they are not satisfied with the action taken.

3.3.3 Any action taken shall be monitored and reviewed, as appropriate, to ensure it effectively deals with the issue.

#### 3.4 Appeal

3.4.1 Employees have the right to appeal where they feel their grievance has not been satisfactorily resolved.

3.4.2 The request for an appeal must state the grounds for the appeal and should be submitted to the line manager <<or HR Manager>> in writing within <<5>> working days of receiving written confirmation as to the outcome of the grievance meeting.

3.4.3 The line manager will arrange a further meeting to discuss the appeal within a reasonable time of receiving the request for an appeal. The employee will be informed of the time and place of the appeal in advance.

3.4.4 The appeal will be dealt with impartially and, wherever possible, will be chaired by a manager who has not previously been involved in the case and is of increased seniority to the one who dealt with the original grievance. This appeal hearing is not a re-hearing of the original appeal but a consideration of the specific areas of dissatisfaction in relation to the original grievance.

3.4.5 The employee has the right to be accompanied at the appeal meeting and the outcome of the appeal meeting shall be communicated to the employee in writing within <<5>> working days. Decisions made at this point are final and the grievance procedure is concluded.

#### 4. Confidentiality

4.1 Grievances will be handled with as high a degree of confidentiality as is practicable.

4.2 Confidential records of the grievance will be kept in the employee's personnel file in accordance with Data Protection legislation. Copies of meeting notes will be provided to the employee, although the Company reserves the right to withhold certain information (e.g. to protect a witness).

#### 5. Special Cases

5.1 Where a grievance is raised during the disciplinary process, the disciplinary process may be suspended so the grievance can be dealt with first.

5.2 The above procedure shall not be used for collective grievances.

5.3 [A separate procedure can be referred to for issues involving bullying, harassment or whistle blowing.]

**This procedure has been approved and authorised by:**

**Name:** Eng. Zouheir Hajj Sleiman

**Position:** Project Human Resources Manager

**Date:** 27/7/2020

# Annex F

## ECOLOGICAL MANAGEMENT PLAN

Report prepared for: The construction of additional sewer lines in  
Baaloul and Qaraaoun

Khoury Contracting Company KCC S.A.R.L

## 1.Introduction

This document provides a scheme of ecological protection and management for the construction of Additional Sewer Lines and Sewage Pumping Stations in Baaloul and Qaraaoun. This scheme has been prepared to support a Construction Environment and Social Management Plan (CESMP).

## 2.Site evaluation

Baaloul area is near lake Qaraoun which is the largest freshwater body by far in Lebanon, lying at the Southern end of the Bekaa valley, which is a continuation of the Rift valley itself.

Observations suggest that raptors, Storks, Pelicans and other soaring birds pass over the lake annually. Several species of conservation concern have been recorded here in past years such as Sociable Plover, and Ferruginous Duck. Also, the most important site in Lebanon for wintering ducks.

But, since the lake has been tested to be contaminated, numbers of animals and bird have been decreasing dramatically.



### 3. ECOLOGICAL PROTECTION PROPOSALS

- Prior to physical disturbance of habitats within the development area, suitable assessments should be undertaken to establish the extent to which notable or protected fauna species represent that could be vulnerable to disturbance;
- Where appropriate, the implementation of site activities with the potential for disturbing notable or protected fauna species should be restricted to periods of least ecological sensitivity;
- Botanical assessment prior to implementation of the development scheme will help to identify the extent to which areas of particular vegetation interest could be disturbed;
- Where appropriate, translocation of vegetation or individual plants from development areas might be necessary to ensure that loss of botanical interest is avoided.
- Monitor the composition of calcareous grassland patches to identify areas of particular botanical interest, including locations of notable plant species;
- Where vegetation patches or locations of notable plant species are found, undertake vegetation management as appropriate to maintain the floristic interest of these features;
- If appropriate, translocate vegetation patches or individual plants of notable species from the worksite.
- Vegetation assessments are undertaken through implementation of this Ecological Management The plan will confirm the location, character, and condition of notable grassland vegetation types within the worksite.
- Monitor progressive completion of development operations to identify any significant changes to the current footprint;
- If changes to development operations create a requirement for tree or shrub removal or encroachment onto grassland areas of potential interest to ground nesting birds this should be preceded with an assessment of the potential for disturbance of nesting birds;
- If nesting potential is identified, removal of trees, shrubs or grassland should be avoided or supported by an ecological assessment to establish that use by nesting birds has finished.
- Any habitat within the working area such as coarse grassland or accumulations of rubble that might be of potential interest to reptiles would be hand-searched by a suitably qualified person immediately prior to works starting;
- This person will then undertake a watching brief of the works. They will be in constant communication with any machinery operators (who will have been adequately briefed on the task) and will ask them to stop periodically to check the working areas for reptiles;
- Any other animals found during the operations will be transported to a suitable receptor area on-site (but over 50 m away from the working area).



## 4.0. IMPLEMENTATION FRAMEWORK

### 4.1. ROLES AND RESPONSIBILITIES

A variety of organizations and individuals are involved in delivery of the project

Ecological management plan. Contact details for key organizations and individuals are

Provided below:

<b>Role</b>	<b>Name</b>	<b>Contact</b>
Ecological super visor	Fadi Younis	03/627923
Project manager	Ali Hajj Sleiman	70/444813

### 4.2. SUPERVISION/SURVEILLANCE

All aspects of this ecological management plan will be overseen by an Ecological super visor of Works that will undertake site visits on a regular basis to review progress with the development scheme focusing on operations that might have implications for ecological protection. The Ecological super visor of Works will undertake monthly surveillance visits to the entire site, with additional visits as necessary to monitor specific site activities.

The scope of responsibilities to be performed by the Ecological super visor of Works is as follows:

The scope of responsibilities to be performed by the Ecological Clerk of Works is as follows:

- To ensure that the objectives, purpose and requirements of the Ecological Management Plan are communicated to all site operatives;
- To undertake monthly surveillance site visits with supplementary site visits as necessary;
- To review the general ecological condition of the development site, focusing on features identified in the Ecological Management Plan of potential vulnerability to adverse effects of the development scheme;
- To undertake ecological monitoring as necessary;
- To compile a summary report for each monthly surveillance visit and for any supplementary site visits that may be undertaken.

### 4.3. MONITORING

The general ecological condition of the development site would be reviewed and recorded as part of the monthly surveillance visit by the Ecological Clerk of Works.

Where vegetation monitoring is considered appropriate to support specific objectives of this Ecological Management Plan appropriate standard vegetation survey and assessment protocols would be used for data collection and analysis.

Detailed proposals for the final restoration and occupation phases of the proposed development would be confirmed at the end of the earthworks phase. This would ensure that provisions for on-going ecological monitoring fully consider any specific measures for ecological protection and management that might arise during the final stages of fill and profiling within the site. In particular, this would ensure that appropriate measures are incorporated into implementation plans for landscape design proposals.

### 4.4. REPORTING

A surveillance report will be prepared by the Ecological supervisor of Works immediately after each monthly site visit. This report will be submitted to the consultant within seven days of each surveillance visit for comment and record. In the event that supplementary site visits are undertaken to review the implementation of the Ecological Management Plan a summary report will be prepared immediately following the site visit and this will also be submitted to the consultant within seven days of the supplementary site visit for comment and record. In the event that additional ecological assessments are required to support implementation of Ecological Protection Method Statements, these assessments will be recorded as necessary in stand-alone reports for submission to the consultant for comment and record.

# Annex G

## Camp set up plan

Report prepared for: The construction of additional sewer lines in  
Baaloul and Qaraaoun

Khoury Contracting Company KCC S.A.R.L

## 1.Introduction

The camp is located in Baaloul near Quaraoun high school, facing the Quaraoun Lake.

It consists of three prefabricated units (3x6m) each, as shown in the picture.

The first one is used for storage, the second is used as consultant office, and the third is used as contractor office.

Neither one of the three is used by workers who come and go each day to their own homes individually and do not live/sleep in the camp or any other location related to the company.



## 2.Details of hygienic facilities

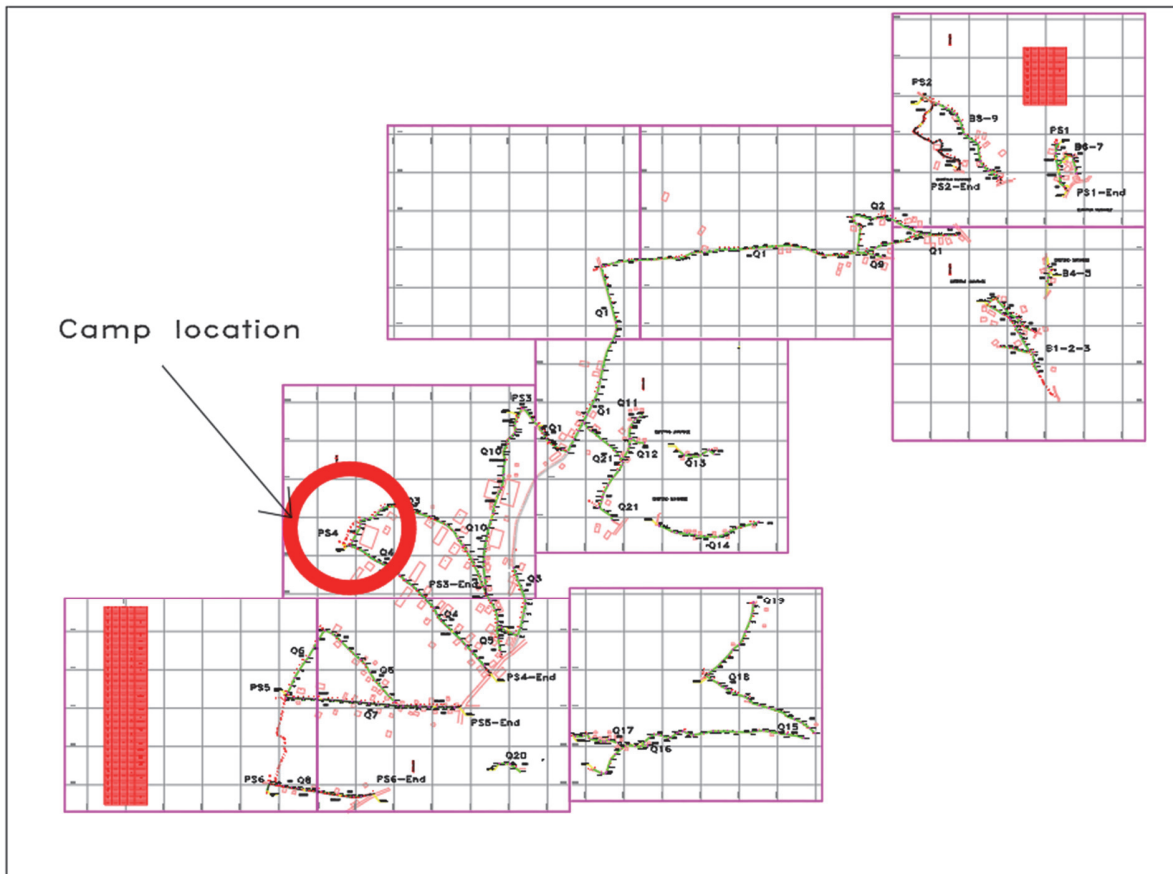
Each prefab unit contains a toilet.

All units are connected to the public sewer lines passing by the near high school.

The units are connected to elevated polyethylene water tanks to feed them with clean water.

The site was given by the local municipality who agreed on all the connections and locations

### 3.Camp location and connections



As previously described, the camp consists of prefab units that serve as offices and storage.

It is located on the shores of the Quaraoun lake near the public high school as shown in the drawings above. This location was offered by the local authorities.

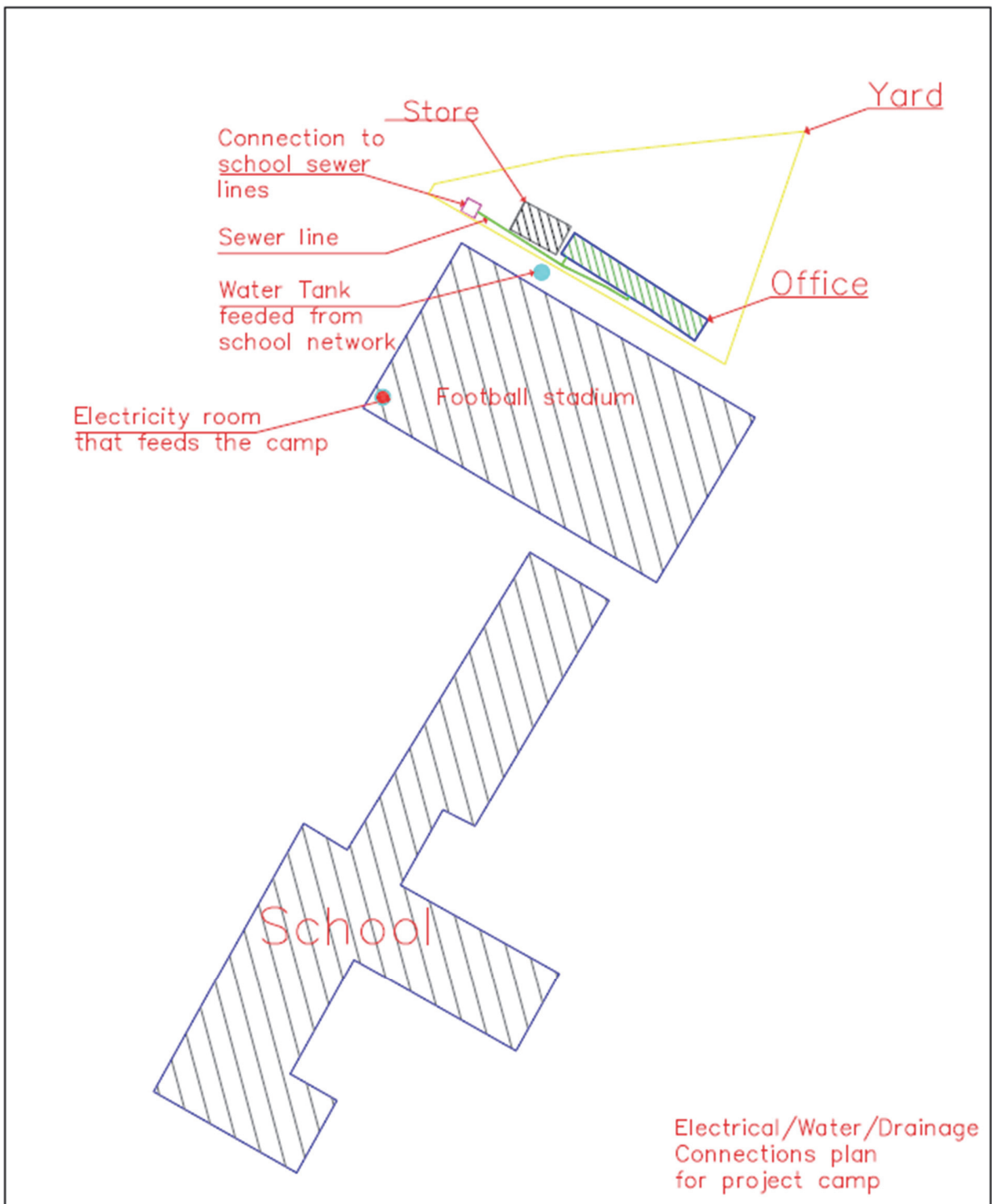
The fact that the location is near a public structure (official high school) that have a good infrastructure facilitated the installation of the camp.

So, a water connection from the high school was done to fill the camp water tanks. Also, the drainage of the camp was connected to the school's sewer lines that are connected to the public ones.

As for the electricity, which is very important for offices work, the connection from the school electrical room was not enough for us. So, in addition, we installed an electrical motor to feed the offices for emergency power supply.

All connections were done in accordance and coordination with the official authorities and municipalities. We will attach official letters showing that in the monthly reports.

The plan below shows the connections and the camp set up.



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# ANNEX H

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## COVID -19 RESPONSE PLAN

Prepared for: The construction of additional sewer lines and pumping stations in Baaloul and Qaraaoun

Khoury Contracting Company KCC S.A.R.L

## Introduction:

About five months ago the first injury of Covid-19 appeared in Lebanon, although the authorities' procedures and the lockdown the virus continues spreading more and more and the number of injuries is increasing.

However, there is conflicting information about this virus, but the proven truth that it is a rapidly spreading disease and it has no confirmed vaccine.

In front of these circumstances, we must be responsible and take a place to protect our personal and deliver the project in complying with client specifications.

## Objective:

This plan is aiming to protect all the project team from the Covid-19 by keep any potential injury out of the project and reducing the possibility of infection if any person infiltrates the site.

## Description of the project

Our project is located in the West Beqaa in Lebanon.it aim to Construction of Additional Sewer Lines and Sewage Pumping Stations in Baaloul and Qaraaoun.

The total number of worker might reach to 30/day, the area of construction site is about. 25K m2.

## Preventive measures

Since the project does not contain any compound for labors, and since all of them leave the site after work to their personal homes, the main key of the preventive measures is to appoint a person who will be responsible to measure the temperature of everybody came to the site in addition to:



## Social Distancing

This point is the main key to stop coronavirus. If the person is distant from others, there will be no source to transmit the infection.

So, the staff and workers avoid being in crowds and try to always maintain distance (more than 1 meter at least) between them.

Also, the workers camp/dormitories were prevented and forbidden from site in order to decrease contact between them.

Instead workers leave to their private homes (not related to the project) after finishing their works.



Offices will be occupied by one employer that will keep a minimum one meter between the chairs in the meeting room

Also, everyone should use his own copy of each document without any sharing or exchange for the hard copy

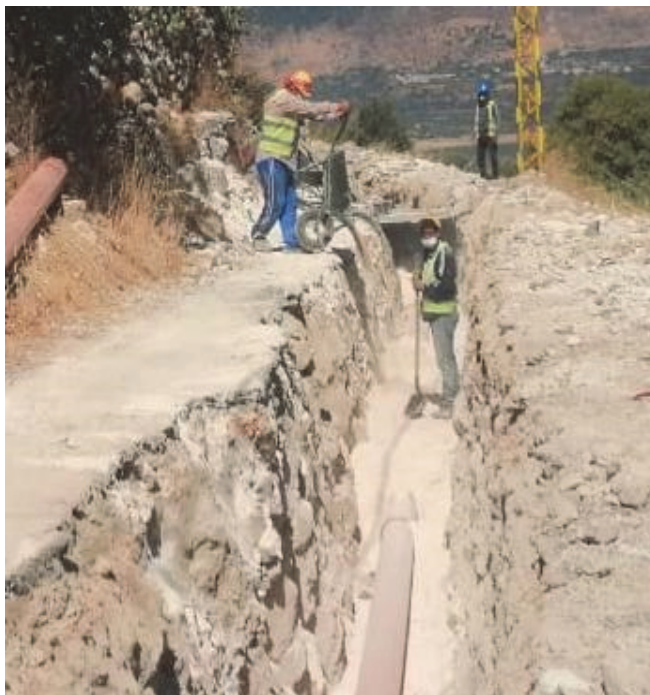
## Good Hygiene



+

Good hygiene is one of the precautions that is taken into consideration concerning COVID-19 virus. This includes washing hands regularly, avoid touching nose and eyes, and using alcohol-based liquids to clean hands

## Protective equipment (masks, gloves, helmets ...)



Masks and gloves are important to prevent the virus spread. So, they are used among all staff and workers. Even with coronavirus prevention importance, safety is not forgotten and is taken into consideration by wearing helmets.

## Health and awareness monitoring

There are many signs and symptoms of the virus that can give an alarm of an infection (coughing, pain, temperature...).

Temperature is a very important early sign that shows if the person could be infected or not.

So, temperature is daily measured for all workers to ensure nobody is infected. In addition to temperature measuring, anyone who shows any symptom must be reported to the local authorities to take proper actions.

In addition to monitoring, there are regular campaigns to increase awareness among all workers and staff in order to remind them about the big danger and the importance of all precautions that need to be taken.



## Implementation table and monitoring

Name of responsible	Contact	Responsibility
Fadi Younes	03/627923	Measure the temperature
Fadi Younes	03/627923	Verify adherence to wearing masks and paws
Fadi Younes	03/627923	Keep the minimum distance between the persons

## Actions in the event of symptoms:

Anyone with a high temperature will never be allowed to enter the site.

If the symptoms of Covid-19 appeared to anyone in the project we will give him a permission to stay at home and he will never be allowed to enter the site unless he make a PCR test.

## **ANNEX I – Expectation of program of work until March 2021**

**1- Percent of completion**

**2- Cash Flow**

**3- Program of Work**

**4- S-curve**

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021		
							May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
<b>Total</b>		384	27-May-20 A	28-May-21	8	\$2,429,868															
<b>CONSTRUCTION OF ADDITIONAL PROJECT MILESTONE</b>		384	27-May-20	28-May-21	8	\$2,429,868															
PM100	Project notice to commence	0	27-May-20 A			\$0	◆ Project notice to commence														
PM110	Contractual commencement of works	0	03-Jun-20 A			\$0	◆ Contractual commencement of works														
<b>ENGINEERING</b>		384	28-May-20	21-Feb-21		\$19,110															
<b>SHOP DRAWINGS SUBMITTALS</b>		376	12-Jun-20	10-Feb-21		\$19,110															
DS230	C-Q shop drawings submittals Part (1)	7	12-Jun-20 A	29-Jun-20 A		\$1,000	100% C-Q shop drawings submittals Part (1)														
DS220	C-B shop drawing submittals Part (1)	7	25-Jun-20 A	05-Jul-20 A		\$1,000	100% C-B shop drawing submittals Part (1)														
DS314	C-Q shop drawings submittals Part (2)	7	29-Jun-20 A	21-Jul-20 A		\$1,000	100% C-Q shop drawings submittals Part (2)														
DS311	C-B shop drawing submittals Part (2)	7	14-Aug-20 A	18-Aug-20 A		\$1,000	100% C-B shop drawing submittals Part (2)														
DS312	C-B shop drawing submittals Part (3)	7	14-Aug-20 A	07-Nov-20 A		\$1,000	100% C-B shop drawing submittals Part (3)														
DS315	C-Q shop drawings submittals Part (3)	7	14-Aug-20 A	18-Aug-20 A		\$1,000	100% C-Q shop drawings submittals Part (3)														
DS316	C-Q shop drawings submittals Part (4)	7	14-Aug-20 A	26-Oct-20 A		\$1,000	100% C-Q shop drawings submittals Part (4)														
DS100	A-PS1 shop drawing submittals	7	11-Sep-20 A	18-Sep-20 A		\$1,000	100% A-PS1 shop drawing submittals														
DS110	A-PS2 shop drawings submittals	7	15-Sep-20 A	23-Sep-20 A		\$1,000	100% A-PS2 shop drawings submittals														
DS319	C-Q shop drawings submittals Part (7)	7	17-Sep-20 A	27-Sep-20 A		\$1,000	100% C-Q shop drawings submittals Part (7)														
DS320	C-Q shop drawings submittals Part (8)	7	28-Sep-20 A	06-Oct-20 A		\$350	100% C-Q shop drawings submittals Part (8)														
DS160	B-PS1 shop drawing submittals	7	29-Sep-20 A	07-Oct-20 A		\$0	100% B-PS1 shop drawing submittals														
DS120	A-PS3 shop drawings submittals	7	20-Oct-20 A	28-Oct-20 A		\$1,000	100% A-PS3 shop drawings submittals														
DS317	C-Q shop drawings submittals Part (5)	7	27-Oct-20 A	04-Nov-20 A		\$1,000	100% C-Q shop drawings submittals Part (5)														

█ Actual Work   
 █ Critical Remaining Work   
  % Complete  
 Remaining Work   
 ◆ Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021						
							May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul				
DS130	A-PS4 shop drawings submittals	7	01-Nov-20 A	09-Nov-20 A		\$1,000								100%											
DS170	B-PS2 shop drawings submittals	7	03-Nov-20 A	11-Nov-20 A		\$0								100%											
DS313	C-B shop drawing submittals Part (4)	7	07-Nov-20 A	15-Nov-20 A		\$1,000								100%											
DS318	C-Q shop drawings submittals Part (6)	7	07-Nov-20 A	15-Nov-20 A		\$1,000								100%											
DS180	B-PS3 shop drawings submittals	7	30-Nov-20 A	08-Dec-20 A		\$0									100%										
DS190	B-PS4 shop drawings submittals	7	10-Dec-20 A	20-Dec-20 A		\$894									100%										
DS140	A-PS5 shop drawings submittals	7	14-Dec-20 A	22-Dec-20 A		\$866									100%										
DS200	B-PS5 shop drawings submittals	7	24-Jan-21 A	01-Feb-21 A		\$0											100%								
DS150	A-PS6 shop drawings submittals	7	27-Jan-21 A	04-Feb-21 A		\$1,000											100%								
DS210	B-PS6 shop drawings submittals	7	02-Feb-21 A	10-Feb-21 A		\$1,000											100%								
<b>DRAWINGS APPROVALS</b>		<b>198</b>	<b>12-Jun-20</b>	<b>21-Feb-21</b>		<b>\$0</b>																			
DS310	C-Q shop drawings approvals Part(1)	7	12-Jun-20 A	01-Jul-20 A		\$0		100%																	
DS324	C-Q shop drawings approvals Part(2)	7	29-Jun-20 A	27-Jul-20 A		\$0		100%																	
DS325	C-Q shop drawings approvals Part(3)	7	22-Jul-20 A	21-Aug-20 A		\$0			100%																
DS300	C-B shop drawing approvals Part (1)	7	30-Jul-20 A	03-Aug-20 A		\$0				100%															
DS321	C-B shop drawing approvals Part (2)	7	18-Aug-20 A	21-Aug-20 A		\$0				100%															
DA100	A-PS1 shop drawing approvals	7	20-Aug-20 A	30-Aug-20 A		\$0				100%															
DS326	C-Q shop drawings approvals Part(4)	7	27-Aug-20 A	06-Sep-20 A		\$0					100%														
DS322	C-B shop drawing approvals Part (3)	7	01-Sep-20 A	09-Sep-20 A		\$0					100%														

█ Actual Work    █ Critical Remaining Work     % Complete  
 Remaining Work    ◆ Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021								
							May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul						
DS327	C-Q shop drawings approvals Part(5)	7	07-Sep-20 A	15-Sep-20 A		\$0					100%																
DS323	C-B shop drawing approvals Part (4)	7	09-Sep-20 A	20-Sep-20 A		\$0					100%																
DS328	C-Q shop drawings approvals Part(6)	7	23-Sep-20 A	01-Oct-20 A		\$0					100%																
DA110	A-PS2 shop drawings approvals	7	24-Sep-20 A	04-Oct-20 A		\$0					100%																
DS329	C-Q shop drawings approvals Part(7)	7	30-Sep-20 A	08-Oct-20 A		\$0					100%																
DS330	C-Q shop drawings approvals Part(8)	7	07-Oct-20 A	15-Oct-20 A		\$0					100%																
DS240	B-PS1 shop drawing approvals	7	08-Oct-20 A	18-Oct-20 A		\$0					100%																
DA120	A-PS3 shop drawings approvals	7	29-Oct-20 A	08-Nov-20 A		\$0						100%															
DA130	A-PS4 shop drawings approvals	7	10-Nov-20 A	18-Nov-20 A		\$0						100%															
DS250	B-PS2 shop drawings approvals	7	12-Nov-20 A	22-Nov-20 A		\$0						100%															
DS260	B-PS3 shop drawings approvals	7	09-Dec-20 A	17-Dec-20 A		\$0							100%														
DS270	B-PS4 shop drawings approvals	7	21-Dec-20 A	29-Dec-20 A		\$0							100%														
DA140	A-PS5 shop drawings approvals	7	23-Dec-20 A	31-Dec-20 A		\$0							100%														
DS280	B-PS5 shop drawings approvals	7	02-Feb-21 A	10-Feb-21 A		\$0								100%													
DA150	A-PS6 shop drawings approvals	7	07-Feb-21 A	15-Feb-21 A		\$0								100%													
DS290	B-PS6 shop drawings approvals	7	11-Feb-21 A	21-Feb-21 A		\$0								100%													
<b>MATERIALS SUBMITTALS</b>		<b>384</b>	<b>28-May-20</b>	<b>15-Nov-20</b>		<b>\$0</b>																					
MS170	Motopumpsets	7	28-May-20 A	08-Sep-20 A		\$0	100%																				
MS470	PVC pipes and fittings	7	28-May-20 A	09-Jun-20 A		\$0	100%																				
MS480	DI pipes and fittings	7	28-May-20 A	09-Jun-20 A		\$0	100%																				
MS490	Manhole cover and frame	7	28-May-20 A	07-Jul-20 A		\$0	100%																				

█ Actual Work     █ Critical Remaining Work      % Complete  
█ Remaining Work     ◆ Milestone









Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021						
							May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul				
MDEL260	Generator set	7	29-Oct-20 A	08-Nov-20 A		\$0									100%										
MDEL330	Electrical Lighting system	7	05-Nov-20 A	15-Nov-20 A		\$0									100%										
MDEL370	Electrical system	7	05-Nov-20 A	15-Nov-20 A		\$0									100%										
MDEL400	Instrumentation and Control	7	05-Nov-20 A	15-Nov-20 A		\$0									100%										
<b>BAALOUL SEWER LINES</b>		<b>230</b>	<b>02-Jun-20 A</b>	<b>13-Nov-20 A</b>		<b>\$294,020</b>																			
CB60	Trial pit not exceeding 3m depth	10	02-Jun-20 A	15-Jun-20 A		\$1,620	100%																		
CB50	Site topographic survey	10	07-Jul-20 A	14-Jul-20 A		\$1,716			100%																
CB140	Reinforced concrete bedding and surrounds	20	10-Jul-20 A	07-Aug-20 A		\$35,627			100%																
CB70	Trial trench not exceeding 3m depth	9	04-Aug-20 A	16-Aug-20 A		\$3,780				100%															
CB100	Trench excavation	30	06-Aug-20 A	12-Aug-20 A		\$19,215				100%															
CB110	Sand or gravel bedding and surrounds	30	08-Aug-20 A	14-Aug-20 A		\$21,025				100%															
CB210	Backfilling of trenches below paved roads and concrete pavement and staircases	20	10-Aug-20 A	07-Sep-20 A		\$15,255					100%														
CB120	Supply and laying of uPVC pipes and fittings for gravity main and lateral sewers	30	11-Aug-20 A	19-Aug-20 A		\$22,473					100%														
CB130	Supply and laying of DI pipes and fittings for sewer force mains	30	17-Aug-20 A	26-Aug-20 A		\$33,730					100%														
CB150	Construction of pre-cast or cast in situ concrete manholes	20	17-Aug-20 A	14-Sep-20 A		\$58,315					100%														
CB160	Manhole neck extensions including concrete cover and ventilation tube	20	20-Aug-20 A	18-Sep-20 A		\$8,384					100%														
CB220	Backfilling of trenches in open areas	20	22-Aug-20 A	20-Sep-20 A		\$6,264					100%														
CB170	Miscellaneous items	20	27-Aug-20 A	01-Sep-20 A		\$4,507					100%														
CB230	Road reinstatement	20	08-Sep-20 A	04-Oct-20 A		\$43,999						100%													
CB190	House connections	20	25-Sep-20 A	04-Oct-20 A		\$15,725							100%												
CB200	Concrete works	20	27-Sep-20 A	04-Oct-20 A		\$914							100%												
CB240	Road reinstatement	20	05-Oct-20 A	02-Nov-20 A		\$0								100%											
CB250	Road reinstatement	20	09-Oct-20 A	06-Nov-20 A		\$0									100%										

█ Actual Work    █ Critical Remaining Work    █ % Complete  
█ Remaining Work    ◆ Milestone





Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021									
							May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul							
APS1120	Concrete works	20	21-Nov-20 A	23-Nov-20 A		\$25,250									100%													
APS1160	Metallic shelters to protect the outdoor pumps and	20	23-Nov-20 A	20-Dec-20 A		\$3,240									100%													
APS1130	Plastering	20	28-Nov-20 A	30-Nov-20 A		\$918									100%													
APS1170	Fence	20	14-Dec-20 A	10-Jan-21 A		\$10,130										100%												
APS1180	Asphalting	20	15-Mar-21 A	11-Apr-21	0	\$1,620																	0%					
<b>ELECTROMECHANICAL WORKS</b>		<b>35</b>	<b>14-Dec-20</b>	<b>17-Jan-21</b>	<b>88</b>	<b>\$41,398</b>																						
BPS1100	Motopumpsets	15	14-Dec-20 A	20-Dec-20	11	\$11,452										70%												
BPS1110	Piping and accessories	15	21-Dec-20 A	27-Dec-20	11	\$669										70%												
BPS1120	Portable fire extinguishers	15	21-Dec-20 A	27-Dec-20	11	\$216										70%												
BPS1130	EDL Electrical Power Transformer	15	28-Dec-20 A	03-Jan-21	11	\$4,860										70%												
BPS1140	Generator set	15	04-Jan-21 A	10-Jan-21	11	\$10,744										70%												
BPS1150	Electrical Lighting system	15	11-Jan-21 A	17-Jan-21	0	\$713											70%											
BPS1160	Electrical system	15	11-Jan-21 A	17-Jan-21	0	\$7,436											70%											
BPS1170	Instrumentation and Control	15	11-Jan-21 A	17-Jan-21	0	\$4,984											70%											
BPS1180	Design, supply and installation of a complete surge suppression system	7	11-Jan-21 A	13-Jan-21	90	\$324											70%											
<b>BAALOUL PUMPING STATION(PS. 2)</b>		<b>104</b>	<b>25-Oct-20 A</b>	<b>11-Apr-21</b>	<b>-51</b>	<b>\$93,940</b>																						
<b>MOBILIZATION</b>		<b>77</b>	<b>25-Oct-20 A</b>	<b>08-Feb-21</b>		<b>\$0</b>																						
MOB120	Mobilization	7	25-Oct-20 A	02-Nov-20 A		\$0										100%												
MOB130	De-Mobilization	7	31-Jan-21 A	08-Feb-21 A		\$0																				100%		
<b>GENERAL</b>		<b>12</b>	<b>03-Nov-20</b>	<b>18-Nov-20</b>		<b>\$4,752</b>																						
GEN130	Checking, completing, and/or performing topographic survey and site delimitation	2	03-Nov-20 A	04-Nov-20 A		\$2,160										100%												
GEN140	Site clearance	5	05-Nov-20 A	11-Nov-20 A		\$1,944										100%												
GEN150	Site rearrangement after construction	5	12-Nov-20 A	18-Nov-20 A		\$648										100%												
<b>CIVIL WORKS</b>		<b>51</b>	<b>19-Nov-20</b>	<b>11-Apr-21</b>	<b>-51</b>	<b>\$40,778</b>																						
PS22100	Excavation	7	19-Nov-20 A	29-Nov-20 A		\$567										100%												
PS22120	Concrete works	20	22-Nov-20 A	17-Dec-20 A		\$22,373										100%												

█ Actual Work     █ Critical Remaining Work      % Complete  
 Remaining Work     ◆ ◆ Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021						
							May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul				
PS22130	Plastering	20	29-Nov-20 A	24-Dec-20 A		\$864										100%									
PS22140	Waterproofing	20	06-Dec-20 A	31-Dec-20 A		\$765										100%									
PS22110	Backfilling	20	13-Dec-20 A	07-Jan-21 A		\$2,268										100%									
PS22150	Metal works	20	13-Dec-20 A	07-Jan-21 A		\$1,670										100%									
PS22160	Metallic shelters to protect the outdoor pumps and	20	20-Dec-20 A	14-Jan-21 A		\$3,240										100%									
PS22170	Fence	20	27-Dec-20 A	21-Jan-21 A		\$8,316										100%									
PS22180	Asphalting	20	15-Mar-21 A	11-Apr-21	-51	\$716																	0%		
<b>ELECTROMECHANICAL WORKS</b>		<b>48</b>	<b>11-Jan-21</b>	<b>18-Jan-21</b>	<b>8</b>	<b>\$48,410</b>																			
BPS22100	Motopumpsets	13	11-Jan-21 A	14-Jan-21	8	\$11,957																			
BPS22110	Piping and accessories	13	11-Jan-21 A	14-Jan-21	9	\$669																			
BPS22120	Portable fire extinguishers	13	12-Jan-21 A	17-Jan-21	9	\$216																			
BPS22130	EDL Electrical Power Transformer	13	13-Jan-21 A	18-Jan-21	0	\$4,860																			
BPS22140	Generator set	13	13-Jan-21 A	18-Jan-21	0	\$15,604																			
BPS22150	Electrical Lighting system	13	13-Jan-21 A	18-Jan-21	0	\$713																			
BPS22160	Electrical system	13	13-Jan-21 A	18-Jan-21	0	\$9,083																			
BPS22170	Instrumentation and Control	13	13-Jan-21 A	18-Jan-21	0	\$4,984																			
BPS22180	Design, supply and installation of a complete surge suppression system	7	13-Jan-21 A	18-Jan-21	9	\$324																			
<b>EL QARAAOUN PUMPING STATION(P.S.)</b>		<b>72</b>	<b>30-Nov-20</b>	<b>07-Apr-21</b>	<b>-28</b>	<b>\$70,861</b>																			
<b>MOBILIZATION</b>		<b>72</b>	<b>30-Nov-20</b>	<b>09-Mar-21</b>		<b>\$0</b>																			
MOB140	Mobilization	7	30-Nov-20 A	08-Dec-20 A		\$0																			
MOB150	De-Mobilization	7	01-Mar-21 A	09-Mar-21 A		\$0																			
<b>GENERAL</b>		<b>12</b>	<b>09-Dec-20</b>	<b>24-Dec-20</b>		<b>\$4,752</b>																			
GEN160	Checking, completing, and/or performing topographic survey and site delimitation	2	09-Dec-20 A	10-Dec-20 A		\$2,160																			
GEN170	Site clearance	5	13-Dec-20 A	17-Dec-20 A		\$1,944																			
GEN180	Site rearrangement after construction	5	20-Dec-20 A	24-Dec-20 A		\$648																			
<b>CIVIL WORKS</b>		<b>38</b>	<b>27-Dec-20</b>	<b>07-Apr-21</b>	<b>-28</b>	<b>\$30,318</b>																			

█ Actual Work    █ Critical Remaining Work     % Complete  
 Remaining Work    ◆ Milestone



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021						
							Jan	Feb	Mar	Apr	May	Jun	Jul	Jan	Feb	Mar	Apr	May	Jun	Jul					
							Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul							
PS33100	Excavation	7	27-Dec-20 A	04-Jan-21 A		\$693												100%							
PS33120	Concrete works	20	27-Dec-20 A	21-Jan-21 A		\$17,677												100%							
PS33130	Plastering	18	03-Jan-21 A	26-Jan-21 A		\$1,188												100%							
PS33110	Backfilling	25	04-Jan-21 A	07-Feb-21 A		\$1,134												100%							
PS33140	Waterproofing	18	06-Jan-21 A	31-Jan-21 A		\$918												100%							
PS33150	Metal works	18	11-Jan-21 A	03-Feb-21 A		\$1,670												100%							
PS33160	Metallic shelters to protect the outdoor pumps and	18	14-Jan-21 A	08-Feb-21 A		\$324												100%							
PS33170	Fence	18	19-Jan-21 A	11-Feb-21 A		\$6,242												100%							
PS33180	Asphalting	18	15-Mar-21 A	07-Apr-21	-28	\$473														0%					
<b>ELECTROMECHANICAL WORKS</b>		<b>17</b>	<b>04-Feb-21</b>	<b>14-Feb-21</b>	<b>11</b>	<b>\$35,790</b>																			
BPS33100	Motopumpsets	15	04-Feb-21 A	10-Feb-21	11	\$5,828													70%						
BPS33110	Piping and accessories	15	08-Feb-21 A	14-Feb-21	0	\$666													70%						
BPS33120	Portable fire extinguishers	15	08-Feb-21 A	14-Feb-21	0	\$216													70%						
BPS33130	EDL Electrical Power Transformer	15	08-Feb-21 A	14-Feb-21	0	\$4,860													70%						
BPS33140	Generator set	15	08-Feb-21 A	14-Feb-21	0	\$10,742													70%						
BPS33150	Electrical Lighting system	15	08-Feb-21 A	14-Feb-21	0	\$713													70%						
BPS33160	Electrical system	15	08-Feb-21 A	14-Feb-21	0	\$7,457													70%						
BPS33170	Instrumentation and Control	15	08-Feb-21 A	14-Feb-21	0	\$4,984													70%						
BPS33180	Design, supply and installation of a complete surge suppression system	15	08-Feb-21 A	14-Feb-21	11	\$324													70%						
<b>EL QARAAOUN PUMPING STATION(PS.</b>		<b>78</b>	<b>09-Dec-20</b>	<b>04-Apr-21</b>	<b>-12</b>	<b>\$104,468</b>																			
<b>MOBILIZATION</b>		<b>78</b>	<b>09-Dec-20</b>	<b>28-Mar-21</b>		<b>\$0</b>																			
MOB160	Mobilization	7	09-Dec-20 A	17-Dec-20 A		\$0													100%						
MOB170	De-Mobilization	7	18-Mar-21 A	28-Mar-21 A		\$0															100%				
<b>GENERAL</b>		<b>12</b>	<b>20-Dec-20</b>	<b>04-Jan-21</b>		<b>\$7,344</b>																			
GEN190	Checking, completing, and/or performing topographic survey and site delimitation	2	20-Dec-20 A	21-Dec-20 A		\$2,160													100%						
GEN200	Site clearance	5	22-Dec-20 A	28-Dec-20 A		\$1,944													100%						

█ Actual Work     █ Critical Remaining Work      % Complete  
 Remaining Work     ◆ Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021																	
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul											
							ay																													
GEN210	Site rearrangement after construction	5	29-Dec-20 A	04-Jan-21 A		\$3,240														100%																
<b>CIVIL WORKS</b>		<b>50</b>	<b>05-Jan-21</b>	<b>04-Apr-21</b>	<b>-12</b>	<b>\$35,778</b>																														
PS44100	Excavation	7	05-Jan-21 A	13-Jan-21 A		\$599															100%															
PS44120	Concrete works	20	06-Jan-21 A	02-Feb-21 A		\$18,249															100%															
PS44130	Plastering	15	18-Jan-21 A	07-Feb-21 A		\$1,134															100%															
PS44140	Waterproofing	15	21-Jan-21 A	10-Feb-21 A		\$842															100%															
PS44110	Backfilling	25	25-Jan-21 A	28-Feb-21 A		\$945															100%															
PS44150	Metal works	15	26-Jan-21 A	15-Feb-21 A		\$1,336															100%															
PS44160	Metallic shelters to protect the outdoor pumps and	20	31-Jan-21 A	25-Feb-21 A		\$3,240															100%															
PS44170	Fence	20	11-Feb-21 A	10-Mar-21 A		\$8,057															100%															
PS44180	Asphalting	15	15-Mar-21 A	04-Apr-21	-12	\$1,377																													0%	
<b>ELECTROMECHANICAL WORKS</b>		<b>22</b>	<b>16-Feb-21</b>	<b>25-Feb-21</b>	<b>14</b>	<b>\$61,346</b>																														
BPS44100	Motopumpsets	20	16-Feb-21 A	23-Feb-21	14	\$17,825															70%															
BPS44110	Piping and accessories	20	18-Feb-21 A	25-Feb-21	0	\$1,152															70%															
BPS44120	Portable fire extinguishers	20	18-Feb-21 A	25-Feb-21	0	\$216															70%															
BPS44130	EDL Electrical Power Transformer	20	18-Feb-21 A	25-Feb-21	0	\$8,046															70%															
BPS44140	Generator set	20	18-Feb-21 A	25-Feb-21	0	\$17,222															70%															
BPS44150	Electrical Lighting system	20	18-Feb-21 A	25-Feb-21	0	\$713															70%															
BPS44160	Electrical system	20	18-Feb-21 A	25-Feb-21	0	\$10,863															70%															
BPS44170	Instrumentation and Control	20	18-Feb-21 A	25-Feb-21	0	\$4,984															70%															
BPS44180	Design, supply and installation of a complete surge suppression system	20	18-Feb-21 A	25-Feb-21	14	\$324															70%															
<b>EL QARAAOUN PUMPING STATION(P.S.)</b>		<b>83</b>	<b>14-Jan-21</b>	<b>10-May-21</b>	<b>22</b>	<b>\$89,589</b>																														
<b>MOBILIZATION</b>		<b>83</b>	<b>14-Jan-21</b>	<b>10-May-21</b>		<b>\$0</b>																														
MOB180	Mobilization	10	14-Jan-21 A	27-Jan-21 A		\$0															100%															
MOB190	De-Mobilization	7	02-May-21 A	10-May-21 A		\$0																													100%	
<b>GENERAL</b>		<b>14</b>	<b>28-Jan-21</b>	<b>16-Feb-21</b>		<b>\$4,752</b>																														

█ Actual Work    █ Critical Remaining Work     % Complete  
 Remaining Work    ◆ Milestone





**TC-01 Monthly Project Cash Flow**

WBS level 1	Cost 01-Apr-20 - 31-May-21	Apr 2020	May 2020	Jun 2020	Jul 2020	Aug 2020	Sep 2020	Oct 2020	Nov 2020	Dec 2020	Jan 2021	Feb 2021	Mar 2021	Apr 2021	May 2021	Period Total
QC1W3-2 CONSTRUCTION OF ADDITIONAL SEWER LINES AND SEWAGE PUMPING STATIONS IN BAALLOUL AND EL QARAAOUN	Period						\$150	\$200		\$5,891	\$22,010	\$29,141	\$18,743	\$1,632	\$20,607	\$98,375
	Cumulative						\$150	\$350	\$350	\$6,241	\$28,251	\$57,392	\$76,135	\$77,768	\$98,375	\$98,375

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021		
							May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
<b>Total</b>		384	27-May-20 A	30-May-21	0	\$2,429,868															
<b>CONSTRUCTION OF ADDITIONAL PROJECT MILESTONE</b>		64	27-May-20	30-May-21	0	\$0															
PM100	Project notice to commence	0	27-May-20 A			\$0	◆ Project notice to commence														
PM110	Contractual commencement of works	0	03-Jun-20 A			\$0	◆ Contractual commencement of works														
PM120	Complete the works	0		30-May-21	0	\$0	◆ Complete the works														
<b>ENGINEERING</b>		384	28-May-20	21-Feb-21		\$19,110															
<b>SHOP DRAWINGS SUBMITTALS</b>		376	12-Jun-20	10-Feb-21		\$19,110															
DS230	C-Q shop drawings submittals Part (1)	7	12-Jun-20 A	29-Jun-20 A		\$1,000	■ C-Q shop drawings submittals Part (1)														
DS220	C-B shop drawing submittals Part (1)	7	25-Jun-20 A	05-Jul-20 A		\$1,000	■ C-B shop drawing submittals Part (1)														
DS314	C-Q shop drawings submittals Part (2)	7	29-Jun-20 A	21-Jul-20 A		\$1,000	■ C-Q shop drawings submittals Part (2)														
DS311	C-B shop drawing submittals Part (2)	7	14-Aug-20 A	18-Aug-20 A		\$1,000	■ C-B shop drawing submittals Part (2)														
DS312	C-B shop drawing submittals Part (3)	7	14-Aug-20 A	07-Nov-20 A		\$1,000	■ C-B shop drawing submittals Part (3)														
DS315	C-Q shop drawings submittals Part (3)	7	14-Aug-20 A	18-Aug-20 A		\$1,000	■ C-Q shop drawings submittals Part (3)														
DS316	C-Q shop drawings submittals Part (4)	7	14-Aug-20 A	26-Oct-20 A		\$1,000	■ C-Q shop drawings submittals Part (4)														
DS100	A-PS1 shop drawing submittals	7	11-Sep-20 A	18-Sep-20 A		\$1,000	■ A-PS1 shop drawing submittals														
DS110	A-PS2 shop drawings submittals	7	15-Sep-20 A	23-Sep-20 A		\$1,000	■ A-PS2 shop drawings submittals														
DS319	C-Q shop drawings submittals Part (7)	7	17-Sep-20 A	27-Sep-20 A		\$1,000	■ C-Q shop drawings submittals Part (7)														
DS320	C-Q shop drawings submittals Part (8)	7	28-Sep-20 A	06-Oct-20 A		\$350	■ C-Q shop drawings submittals Part (8)														
DS160	B-PS1 shop drawing submittals	7	29-Sep-20 A	07-Oct-20 A		\$0	■ B-PS1 shop drawing submittals														
DS120	A-PS3 shop drawings submittals	7	20-Oct-20 A	28-Oct-20 A		\$1,000	■ A-PS3 shop drawings submittals														

■ Actual Work    ■ Critical Remaining Work  
■ Remaining Work    ◆ Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021					
							May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul			
DS317	C-Q shop drawings submittals Part (5)	7	27-Oct-20 A	04-Nov-20 A		\$1,000																		
DS130	A-PS4 shop drawings submittals	7	01-Nov-20 A	09-Nov-20 A		\$1,000																		
DS170	B-PS2 shop drawings submittals	7	03-Nov-20 A	11-Nov-20 A		\$0																		
DS313	C-B shop drawing submittals Part (4)	7	07-Nov-20 A	15-Nov-20 A		\$1,000																		
DS318	C-Q shop drawings submittals Part (6)	7	07-Nov-20 A	15-Nov-20 A		\$1,000																		
DS180	B-PS3 shop drawings submittals	7	30-Nov-20 A	08-Dec-20 A		\$0																		
DS190	B-PS4 shop drawings submittals	7	10-Dec-20 A	20-Dec-20 A		\$894																		
DS140	A-PS5 shop drawings submittals	7	14-Dec-20 A	22-Dec-20 A		\$866																		
DS200	B-PS5 shop drawings submittals	7	24-Jan-21 A	01-Feb-21 A		\$0																		
DS150	A-PS6 shop drawings submittals	7	27-Jan-21 A	04-Feb-21 A		\$1,000																		
DS210	B-PS6 shop drawings submittals	7	02-Feb-21 A	10-Feb-21 A		\$1,000																		
<b>DRAWINGS APPROVALS</b>		<b>198</b>	<b>12-Jun-20</b>	<b>21-Feb-21</b>		<b>\$0</b>																		
DS310	C-Q shop drawings approvals Part(1)	7	12-Jun-20 A	01-Jul-20 A		\$0																		
DS324	C-Q shop drawings approvals Part(2)	7	29-Jun-20 A	27-Jul-20 A		\$0																		
DS325	C-Q shop drawings approvals Part(3)	7	22-Jul-20 A	21-Aug-20 A		\$0																		
DS300	C-B shop drawing approvals Part (1)	7	30-Jul-20 A	03-Aug-20 A		\$0																		
DS321	C-B shop drawing approvals Part (2)	7	18-Aug-20 A	21-Aug-20 A		\$0																		
DA100	A-PS1 shop drawing approvals	7	20-Aug-20 A	30-Aug-20 A		\$0																		
DS326	C-Q shop drawings approvals Part(4)	7	27-Aug-20 A	06-Sep-20 A		\$0																		

Actual Work     
  Critical Remaining Work  
 Remaining Work     
 ◆ Milestone





Activity ID	Activity Name	Original duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021		
							May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
							ay	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
MS490	Manhole cover and frame	7	28-May-20 A	07-Jul-20 A		\$0	Manhole cover and frame														
MS160	Asphalting	7	01-Jul-20 A	07-Jul-20 A		\$0	Asphalting														
MS100	Concrete works and accessories	7	09-Jul-20 A	01-Aug-20 A		\$0	Concrete works and accessories														
MS120	Waterproofing	7	10-Sep-20 A	18-Sep-20 A		\$0	Waterproofing														
MS110	Plastering	7	20-Sep-20 A	28-Sep-20 A		\$0	Plastering														
MS260	Generator set	7	21-Sep-20 A	29-Sep-20 A		\$0	Generator set														
MS330	Electrical Lighting system	7	28-Sep-20 A	06-Oct-20 A		\$0	Electrical Lighting system														
MS370	Electrical system	7	06-Oct-20 A	15-Oct-20 A		\$0	Electrical system														
MS220	Piping and accessories	7	07-Oct-20 A	15-Nov-20 A		\$0	Piping and accessories														
MS400	Instrumentation and Control	7	07-Oct-20 A	15-Oct-20 A		\$0	Instrumentation and Control														
MS130	Metal works	7	27-Oct-20 A	04-Nov-20 A		\$0	Metal works														
MS140	Metallic shelters to protect the outdoor pumps and	7	27-Oct-20 A	04-Nov-20 A		\$0	Metallic shelters to protect the outdoor pumps and														
MS150	Fence	7	07-Nov-20 A	15-Nov-20 A		\$0	Fence														
MS240	Portable fire extinguishers	7	07-Nov-20 A	15-Nov-20 A		\$0	Portable fire extinguishers														
MS250	EDL Electrical Power Transformer	7	07-Nov-20 A	15-Nov-20 A		\$0	EDL Electrical Power Transformer														
<b>MATERIALS APPROVALS</b>		<b>377</b>	<b>02-Jun-20 A</b>	<b>15-Nov-20 A</b>		<b>\$0</b>															
MA490	Manhole cover and frame	7	02-Jun-20 A	22-Jul-20 A		\$0	Manhole cover and frame														
MA470	PVC pipes and fittings	7	18-Jun-20 A	22-Jun-20 A		\$0	PVC pipes and fittings														
MA160	Asphalting	7	07-Jul-20 A	16-Jul-20 A		\$0	Asphalting														
MA480	DI pipes and fittings	7	22-Jul-20 A	29-Jul-20 A		\$0	DI pipes and fittings														
MA120	Waterproofing	7	05-Aug-20 A	11-Aug-20 A		\$0	Waterproofing														
MA100	Concrete works and accessories	7	21-Aug-20 A	27-Aug-20 A		\$0	Concrete works and accessories														
MA150	Fence	7	09-Sep-20 A	17-Sep-20 A		\$0	Fence														
MA170	Motopumpsets	7	09-Sep-20 A	17-Sep-20 A		\$0	Motopumpsets														
MA220	Piping and accessories	7	16-Sep-20 A	24-Sep-20 A		\$0	Piping and accessories														
MA240	Portable fire extinguishers	7	16-Sep-20 A	24-Sep-20 A		\$0	Portable fire extinguishers														
MA250	EDL Electrical Power Transformer	7	23-Sep-20 A	01-Oct-20 A		\$0	EDL Electrical Power Transformer														
MA110	Plastering	7	29-Sep-20 A	07-Oct-20 A		\$0	Plastering														
MA260	Generator set	7	30-Sep-20 A	08-Oct-20 A		\$0	Generator set														

■ Actual Work    ■ Critical Remaining Work  
■ Remaining Work    ◆ Milestone



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021						
							May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul				
MFAB140	Metallic shelters to protect the outdoor pumps and	7	08-Sep-20 A	16-Sep-20 A		\$0																			
MFAB150	Fence	7	29-Sep-20 A	07-Oct-20 A		\$0																			
MFAB170	Motopumpsets	7	29-Sep-20 A	07-Oct-20 A		\$0																			
MFAB220	Piping and accessories	7	06-Oct-20 A	14-Oct-20 A		\$0																			
MFAB240	Portable fire extinguishers	7	06-Oct-20 A	14-Oct-20 A		\$0																			
MFAB250	EDL Electrical Power Transformer	7	13-Oct-20 A	21-Oct-20 A		\$0																			
MFAB160	Asphalting	7	15-Oct-20 A	25-Oct-20 A		\$0																			
MFAB110	Plastering	7	18-Oct-20 A	26-Oct-20 A		\$0																			
MFAB260	Generator set	7	20-Oct-20 A	28-Oct-20 A		\$0																			
MFAB330	Electrical Lighting system	7	27-Oct-20 A	04-Nov-20 A		\$0																			
MFAB400	Instrumentation and Control	7	27-Oct-20 A	04-Nov-20 A		\$0																			
MFAB380	Electrical system	7	05-Nov-20 A	15-Nov-20 A		\$0																			
MFAB130	Metal works	7	07-Nov-20 A	15-Nov-20 A		\$0																			
<b>MATERIALS DELIVERY TO SITE</b>		<b>85</b>	<b>20-Jul-20 A</b>	<b>15-Nov-20</b>		<b>\$0</b>																			
MDEL100	Concrete works and accessories	7	20-Jul-20 A	27-Sep-20 A		\$0																			
MDEL470	PVC pipes and fittings	7	20-Jul-20 A	26-Sep-20 A		\$0																			
MDEL110	Plastering	7	27-Aug-20 A	06-Sep-20 A		\$0																			
MDEL120	Waterproofing	7	03-Sep-20 A	13-Sep-20 A		\$0																			
MDEL130	Metal works	7	10-Sep-20 A	20-Sep-20 A		\$0																			
MDEL490	Manhole cover and frame	7	13-Sep-20 A	20-Sep-20 A		\$0																			
MDEL140	Metallic shelters to protect the outdoor pumps and	7	17-Sep-20 A	27-Sep-20 A		\$0																			
MDEL150	Fence	7	08-Oct-20 A	18-Oct-20 A		\$0																			
MDEL170	Motopumpsets	7	08-Oct-20 A	18-Oct-20 A		\$0																			
MDEL220	Piping and accessories	7	15-Oct-20 A	25-Oct-20 A		\$0																			
MDEL240	Portable fire extinguishers	7	15-Oct-20 A	25-Oct-20 A		\$0																			
MDEL480	DI pipes and fittings	7	18-Oct-20 A	26-Oct-20 A		\$0																			
MDEL250	EDL Electrical Power Transformer	7	22-Oct-20 A	01-Nov-20 A		\$0																			
MDEL160	Asphalting	7	26-Oct-20 A	03-Nov-20 A		\$0																			

■ Actual Work    ■ Critical Remaining Work  
■ Remaining Work    ◆ Milestone





Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021						
							May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul				
C2Q870	Supply and laying of DI pipes and fittings for sewer force mains	20	05-Nov-20 A	30-Nov-20 A		\$34,394																			
C2Q850	Sand or gravel bedding and surrounds	30	08-Nov-20 A	03-Dec-20 A		\$28,900																			
C2Q880	Reinforced concrete bedding and surrounds	15	10-Nov-20 A	04-Dec-20 A		\$5,569																			
C2Q910	Backfilling of trenches below paved roads and concrete pavement and staircases	20	18-Nov-20 A	10-Dec-20 A		\$29,562																			
C2Q890	Construction of pre-cast or cast in situ concrete manholes	15	24-Nov-20 A	03-Dec-20 A		\$73,221																			
C2Q900	Extra over for external drop manholes	15	03-Dec-20 A	11-Dec-20 A		\$10,570																			
C2Q920	Miscellaneous items	15	06-Dec-20 A	11-Dec-20 A		\$534																			
C2Q930	House connections	15	06-Dec-20 A	11-Dec-20 A		\$17,176																			
C2Q940	Concrete works	15	06-Dec-20 A	14-Dec-20 A		\$320																			
C2Q960	Road reinstatement	15	15-Mar-21 A	10-May-21 A		\$44,614																			
C2Q950	Backfilling of trenches in open areas	15	15-Apr-21 A	20-Apr-21	12	\$2,501																			
C2Q970	As-built drawings	10	06-May-21 A	11-May-21	12	\$2,074																			
<b>BAALOUL PUMPING STATION(PS. 1)</b>		<b>190</b>	<b>01-Oct-20 A</b>	<b>20-Apr-21</b>	<b>27</b>	<b>\$93,662</b>																			
<b>MOBILIZATION</b>		<b>188</b>	<b>01-Oct-20 A</b>	<b>20-Apr-21</b>	<b>27</b>	<b>\$0</b>																			
MOB100	Mobilization	7	01-Oct-20 A	11-Oct-20 A		\$0																			
MOB110	De-Mobilization	7	12-Apr-21	20-Apr-21	27	\$0																			
<b>GENERAL</b>		<b>12</b>	<b>08-Oct-20 A</b>	<b>12-Nov-20</b>		<b>\$4,752</b>																			
GEN100	Checking, completing, and/or performing topographic survey and site delimitation	2	08-Oct-20 A	12-Oct-20 A		\$2,160																			
GEN110	Site clearance	5	03-Nov-20 A	10-Nov-20 A		\$1,944																			
GEN120	Site rearrangement after construction	5	08-Nov-20 A	12-Nov-20 A		\$648																			
<b>CIVIL WORKS</b>		<b>119</b>	<b>17-Oct-20 A</b>	<b>11-Apr-21</b>	<b>0</b>	<b>\$47,513</b>																			
APS1100	Excavation	7	17-Oct-20 A	25-Oct-20 A		\$2,583																			
APS1140	Waterproofing	20	09-Nov-20 A	06-Dec-20 A		\$842																			
APS1110	Backfilling	20	16-Nov-20 A	13-Dec-20 A		\$1,260																			

■ Actual Work    ■ Critical Remaining Work  
■ Remaining Work    ◆ Milestone



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021						
							May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul				
PS22120	Concrete works	20	22-Nov-20 A	17-Dec-20 A		\$22,373																			
PS22130	Plastering	20	29-Nov-20 A	24-Dec-20 A		\$864																			
PS22140	Waterproofing	20	06-Dec-20 A	31-Dec-20 A		\$765																			
PS22110	Backfilling	20	13-Dec-20 A	07-Jan-21 A		\$2,268																			
PS22150	Metal works	20	13-Dec-20 A	07-Jan-21 A		\$1,670																			
PS22160	Metallic shelters to protect the outdoor pumps and	20	20-Dec-20 A	14-Jan-21 A		\$3,240																			
PS22170	Fence	20	27-Dec-20 A	21-Jan-21 A		\$8,316																			
PS22180	Asphalting	20	15-Mar-21 A	11-Apr-21	-51	\$716																			
<b>ELECTROMECHANICAL WORKS</b>		<b>48</b>	<b>11-Jan-21</b>	<b>18-Jan-21</b>	<b>8</b>	<b>\$48,410</b>																			
BPS22100	Motopumpsets	13	11-Jan-21 A	14-Jan-21	8	\$11,957																			
BPS22110	Piping and accessories	13	11-Jan-21 A	14-Jan-21	9	\$669																			
BPS22120	Portable fire extinguishers	13	12-Jan-21 A	17-Jan-21	9	\$216																			
BPS22130	EDL Electrical Power Transformer	13	13-Jan-21 A	18-Jan-21	0	\$4,860																			
BPS22140	Generator set	13	13-Jan-21 A	18-Jan-21	0	\$15,604																			
BPS22150	Electrical Lighting system	13	13-Jan-21 A	18-Jan-21	0	\$713																			
BPS22160	Electrical system	13	13-Jan-21 A	18-Jan-21	0	\$9,083																			
BPS22170	Instrumentation and Control	13	13-Jan-21 A	18-Jan-21	0	\$4,984																			
BPS22180	Design, supply and installation of a complete surge suppression system	7	13-Jan-21 A	18-Jan-21	9	\$324																			
<b>EL QARAAOUN PUMPING STATION(P.S.</b>		<b>72</b>	<b>30-Nov-20</b>	<b>07-Apr-21</b>	<b>-28</b>	<b>\$70,861</b>																			
<b>MOBILIZATION</b>		<b>72</b>	<b>30-Nov-20</b>	<b>09-Mar-21</b>		<b>\$0</b>																			
MOB140	Mobilization	7	30-Nov-20 A	08-Dec-20 A		\$0																			
MOB150	De-Mobilization	7	01-Mar-21 A	09-Mar-21 A		\$0																			
<b>GENERAL</b>		<b>12</b>	<b>09-Dec-20</b>	<b>24-Dec-20</b>		<b>\$4,752</b>																			
GEN160	Checking, completing, and/or performing topographic survey and site delimitation	2	09-Dec-20 A	10-Dec-20 A		\$2,160																			
GEN170	Site clearance	5	13-Dec-20 A	17-Dec-20 A		\$1,944																			
GEN180	Site rearrangement after construction	5	20-Dec-20 A	24-Dec-20 A		\$648																			

- Motopumpsets
- Piping and accessories
- Portable fire extinguishers
- EDL Electrical Power Transformer
- Generator set
- Electrical Lighting system
- Electrical system
- Instrumentation and Control
- Design, supply and installation of a complete surg...

- Mobilization
- De-Mobilization
- Checking, completing, and/or performing topographi...
- Site clearance
- Site rearrangement after construction



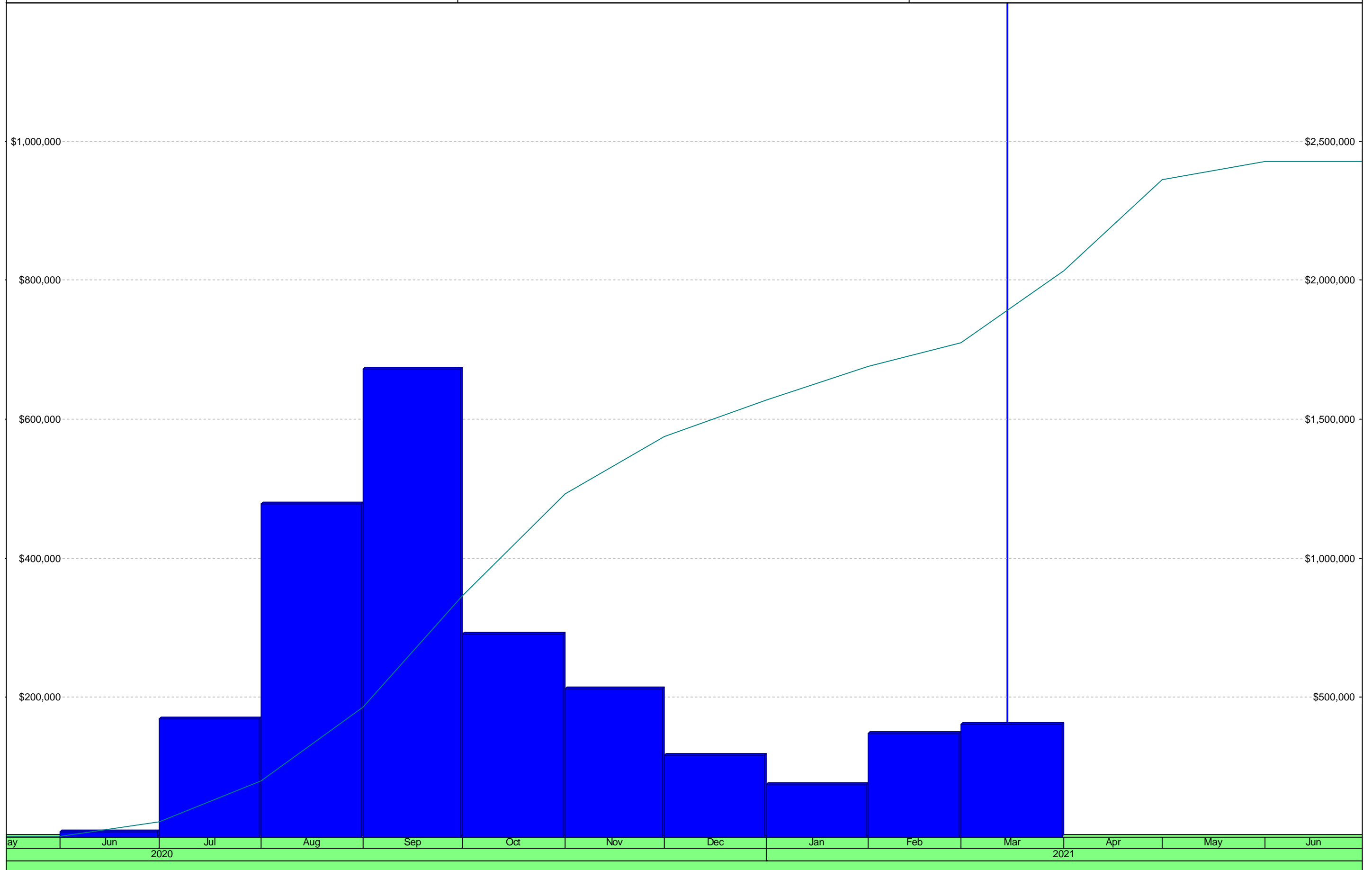
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Budgeted Total Cost	2020												2021						
							Jan	Feb	Mar	Apr	May	Jun	Jul	Jan	Feb	Mar	Apr	May	Jun	Jul					
							Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul							
<b>CIVIL WORKS</b>																									
PS33100	Excavation	7	27-Dec-20	04-Jan-21 A	-28	\$30,318																			
PS33120	Concrete works	20	27-Dec-20 A	21-Jan-21 A		\$17,677																			
PS33130	Plastering	18	03-Jan-21 A	26-Jan-21 A		\$1,188																			
PS33110	Backfilling	25	04-Jan-21 A	07-Feb-21 A		\$1,134																			
PS33140	Waterproofing	18	06-Jan-21 A	31-Jan-21 A		\$918																			
PS33150	Metal works	18	11-Jan-21 A	03-Feb-21 A		\$1,670																			
PS33160	Metallic shelters to protect the outdoor pumps and	18	14-Jan-21 A	08-Feb-21 A		\$324																			
PS33170	Fence	18	19-Jan-21 A	11-Feb-21 A		\$6,242																			
PS33180	Asphalting	18	15-Mar-21 A	07-Apr-21	-28	\$473																			
<b>ELECTROMECHANICAL WORKS</b>																									
BPS33100	Motopumpsets	15	04-Feb-21 A	10-Feb-21	11	\$5,828																			
BPS33110	Piping and accessories	15	08-Feb-21 A	14-Feb-21	0	\$666																			
BPS33120	Portable fire extinguishers	15	08-Feb-21 A	14-Feb-21	0	\$216																			
BPS33130	EDL Electrical Power Transformer	15	08-Feb-21 A	14-Feb-21	0	\$4,860																			
BPS33140	Generator set	15	08-Feb-21 A	14-Feb-21	0	\$10,742																			
BPS33150	Electrical Lighting system	15	08-Feb-21 A	14-Feb-21	0	\$713																			
BPS33160	Electrical system	15	08-Feb-21 A	14-Feb-21	0	\$7,457																			
BPS33170	Instrumentation and Control	15	08-Feb-21 A	14-Feb-21	0	\$4,984																			
BPS33180	Design, supply and installation of a complete surge suppression system	15	08-Feb-21 A	14-Feb-21	11	\$324																			
<b>EL QARAAOUN PUMPING STATION(PS.</b>																									
<b>MOBILIZATION</b>																									
MOB160	Mobilization	7	09-Dec-20 A	17-Dec-20 A		\$0																			
MOB170	De-Mobilization	7	18-Mar-21 A	28-Mar-21 A		\$0																			
<b>GENERAL</b>																									
GEN190	Checking, completing, and/or performing topographic survey and site delimitation	2	20-Dec-20 A	21-Dec-20 A		\$2,160																			
GEN200	Site clearance	5	22-Dec-20 A	28-Dec-20 A		\$1,944																			

■ Actual Work     ■ Critical Remaining Work  
■ Remaining Work     ◆ Milestone









■ Actual Total Cost  
■ Planned Value Cost

## Annex J - Project communication plan

Successful projects run on effective communication. That is why communication plan between all parties related to the project is so important. Those parties include the contractor teams (KCC), consultant (BTD), and the client (CDR, ministry of energy and water).

### 1- Communication between contractor teams.

Contractor team members include:

- a- Project manager
- b- Engineers
- c- Procurement department and suppliers
- d- Workers and drivers

The project manager is the main key for successful communication between all team members in the project. His responsibilities include

- a- Communication with the consultant that will be mentioned in section 2 in detail
- b- Communication with on a daily basis with
  - i- With site engineers via two meetings per day (in the morning and at noon) and via constant phone calls during all the day to ensure he has knowledge of every task, detail, and event happening on site.  
Also, he will be visiting all sites in the project several times per day for supervision. This will ensure that the project stays on track and solve any potential problem that occurs. In addition, it will control all tasks and works, and will guarantee to deliver the project scope on time and with high quality.
  - ii- With procurement department and suppliers via weakly/monthly meetings, phone calls, mails and video conferences if needed to ensure delivering all project materials on time, and within the needed specifications to maintain the workflow.
  - iii- With workers and machine drivers via daily morning meeting, phone calls, and engineers to manage them, give them daily work tasks, and give them all necessary guidance.
- c- Communication with the client that will be mentioned in section 3 in detail.

## **2- Communication with the consultant**

The consultant has a major role in the project as he is responsible for the project design and quality after fulfilling the client's needs, requirements, purpose, and objective of the project.

This means that a good communication between the contractor and the consultant will lead to satisfy the client's needs and vision. In addition, it will lead to the project success and its delivery within required objectives and quality.

So, in order that the consultant can guide the contractor, the latter should report all events, tasks, and every detail to the consultant.

This reporting occurs via site meeting, phone calls, mails, and reporting forms/submittals.

All reporting forms will be mentioned in section 4.

In addition to reporting forms, a monthly report is submitted to document and summarize all events that occurred during the reporting month.

## **3- Communication with the client.**

Mainly, the consultant is responsible for communication with the client. So good reporting for the consultant will certainly lead to good reporting to the client.

In some cases, upon the client request, meetings can be managed with the contractor.

## **4- Reporting forms.**

***SUBMITTAL FOR APPROVAL OF MATERIALS***

CONTRACT : Construction of sewer lines and pumping stations in Baaloul & El  
Qaraaoun - West Beqaa

PROJ. NO. : 2507

REQUEST NO : 2507-MAR-000

DATE : DD/MM/YY

EMPLOYER : COUNCIL FOR DEVELOPMENT AND RECONSTRUCTION

CONSULTANT : BUREAU TECHNIQUE POUR LE DEVELOPPEMENT CONTRACTOR :  
KHOURY CONTRACTING CO s.a.r.l.

**1 MATERIAL** (ONE ITEM ONLY ON THIS FORM)

Area of Application : \_\_\_\_\_

\_\_\_\_\_ B.O.Q Ref No.: \_\_\_\_\_

Drawing Ref : \_\_\_\_\_

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate

**2 MANUFACTURER / SUPPLIER :**

Co. Name : \_\_\_\_\_

Address : \_\_\_\_\_

Local Agent : \_\_\_\_\_

**3 DELIVERY**

Country of origin : \_\_\_\_\_

Availability :  Locally Manufactured  Overseas

Submitted by : \_\_\_\_\_ Signature : \_\_\_\_\_

**4 CONSULTANTS'S REPRESENTATIVE'S COMMENTS :**

	<input type="checkbox"/> Approved
	<input type="checkbox"/> Approved as noted
	<input type="checkbox"/> Revise and Submit
	<input type="checkbox"/> Rejected
	<input type="checkbox"/> Sample Required
	<input type="checkbox"/> Additional information required
	<input type="checkbox"/> Manufacturer's guarantee required

Signature : \_\_\_\_\_ Date: \_\_\_\_\_



# Material test

O-05-22-Rev.0  
Page 1 of 1

2507/MT/000  
Date: DD/MM/YY

**To: Bureau Technique pour le Development SARL**


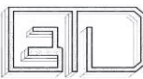
**From: khoury contracting Company SARL**

**Project: Construction of additional sewer lines and sewage pumping station in baaloul and El Qaraaounn -west bekaa caza**

**Subject:**

Best Regards.

Submitted by Name:	Signature:	Date:
Received by Consultant Name:	Signature:	Date:
Consultant comments Name:	<input type="checkbox"/> Approved as noted <input type="checkbox"/> Approved <input type="checkbox"/> Rejected <input type="checkbox"/> Revise and Resubmit <input type="checkbox"/> Note  -----  -----	Signature:
Received by the contractor: Name:	Signature:	Date:

PROJECT NAME:	EMPLOYER:	RFI No.: 2507-RFI-000
<b>CONSTRUCTION OF ADDITIONAL SEWER LINES AND SEWAGE PUMPING STATIONS</b>	 <small>COUNCIL FOR DEVELOPMENT AND RECONSTRUCTION</small>	DATE :DD-MM-YY
		<b>TECHNICAL CONSULTANT:</b>  <small>BUREAU TECHNIQUE POUR LE DEVELOPPEMENT.</small>
<b>LOCATION:</b> WEST BEQAA/BAALOUL AND EL QARAAOUN		

## REQUEST FOR INFORMATION (RFI)

<b>Information Required</b>		
<b>Subject</b> :	_____	
<b>Location</b> :	_____	
<b>Reference Description</b> :	_____	
	_____	
	_____	
	_____	
<b>Originator:</b>	Signature:	Date:
<b>Contractor's Representative</b>	Signature:	Date: DD-MM-YY
<b>Consultant's Response / Comments</b>		
<b>Name:</b>	Signature:	Date:
<b>Engineer's Response / Comments</b>		
_____		
_____		
_____		
<b>Name:</b>	Signature:	Date:
This Request for Information does not authorize any change or variation to the Contract Sum or duration, unless notification from Contractor and approval by Engineer and/or instruction from Engineer.		



Letter form

2507/LT/000

Date: DD/MM/YY

**To: Bureau Technique pour le Development SARL**

**From: khoury contracting Company SARL**

**Project: Construction of additional sewer lines and sewage pumping station in baaloul and El Qaraaounn -west bekaa caza**

**Subject:**

Best Regards.

Submitted by Name:	Signature:	Date:
Received by Consultant Name:	Signature:	Date:
Consultant comments Name:	<input type="checkbox"/> Approved as noted <input type="checkbox"/> Approved <input type="checkbox"/> Rejected <input type="checkbox"/> Revise and Resubmit <input type="checkbox"/> Note  ----- -----	Signature:
Received by the contractor: Name:	Signature:	Date:



<u>Contract No. 20591</u> Construction Of Additional Sewer Lines And Sewage Pumping Station in Baalool and Qaraoon	<u>EMPLOYER:</u> <b>COUNCIL FOR DEVELOPMENT AND RECONSTRUCTION(CDR)</b>	Request No.  /
<u>ENGINEER:</u> <b>BTD</b>	<u>CONTRACTOR :</u> <b>KHOURY CONTRACTING COMPANY S.A.R.L</b>	Date  / /

  <b>REQUEST FOR INSPECTION</b>  
---

We request your attendance to inspect the following works:

1. TYPE:  Civil  Water  Electrical  Mechanical  Other

2. INSPECTION TIME: DATE: / /

3. LOCATION	Site Ref.	Site Location	Stations/Nodes	Drawing No.

4. INSPECTION:  First  Second  Third

5. DESCRIPTION OF WORKS:

6. The works involve the following trades (Thick more than one if required) :

Surveying  Civil  Electrical  Mechanical  Other (specify)

For the Contractor Name & Signature Date:	Received for the Engineer's Representative Name & Signature Date:

7. INSPECTION REPORT:	SIGNATURE:
<input type="checkbox"/> Surveyor	
<input type="checkbox"/> Civil Eng.	
<input type="checkbox"/> Elect. Eng.	
<input type="checkbox"/> Mech. Eng.	
<input type="checkbox"/> Others	

Date/Time of Inspection: / / :

8. ENGINEER'S REPRESENTATIVE'S COMMENTS:

The works are:  Approved  Approved as noted  Rejected

Signature \_\_\_\_\_

Date: / /

# Annex K - KCC Risk management plan

## Contents

- Mythology ..... 2
- Risk probability scale: ..... 2
- Risk effect scale:..... 2
- Risk response constrains:..... 3
- Risk identifications ..... 3
- Risks Matrix:..... 4
- Ordered Risks Matrix ..... 4
- Response plan ..... 5
- Monitoring & Evaluation..... 5

## Mythology

This plan is aiming to specify the probable risks that might face the project then estimate their effects and probability of happening after that we will compute the risk factor for each risk which is equal Effect x probability then we will reorder the risks ascending according to the risk factor next we will set a plan to response for these risks and finally we will keep monitoring for the actual risk effects.

The numerical scale for Probability and impact of risk as mentioned in the PMBOK is used as per the following:

### Risk probability scale:

Very low	0.1
Low	0.3
Medium	0.5
High	0.7
Very high	0.9

### Risk effect scale:

Very low/0.05	insignificant time increase
Low/0.1	5% Cost increase
Moderate/0.2	5-10% Cost increase
High/0.4	10-20% Cost increase
Very high/0.8	>20% Cost increase

## Risk response constrains:

We decided that our response to the risk will be according to the value of the risk factor as mentioned in the table below.

<b><u>Risk Factor</u></b>	<b><u>Risk Response</u></b>
less than 0.06	Accept
0.06-0.2	Mitigate
more than 0.2	Avoid

## Risk identifications

Based on our experience we expect to face the following risks:

- Fires
- Killing wild animals
- Oil leakage
- Pollution caused by destroying existing utilities.
- COVID -19 injuries
- Falls at the same level.
- Injuries from falling objects due to crumble or collapse.
- Injuries from objects falling from above.
- Injuries from stepping on objects.
- Injuries from cuts or blows from objects and tools.
- Injuries from electric contacts.
- Injuries from being hit or run over by vehicles.
- Injuries from traffic accidents.



## Risks Matrix:

Risks	Probability	Impact	Factor
· Fires	0.3	0.8	0.24
· Killing wild animals	0.1	0.05	0.005
· Oil leakage	0.5	0.05	0.025
· Pollution caused by destroying existing utilities.	0.5	0.1	0.05
· COVID -19 injuries	0.7	0.4	0.28
· Falls at the same level.	0.1	0.05	0.005
· Injuries from falling objects due to crumble or collapse.	0.3	0.05	0.015
· Injuries from objects falling from above.	0.1	0.05	0.005
· Injuries from stepping on objects.	0.3	0.05	0.015
· Injuries from cuts or blows from objects and tools.	0.3	0.05	0.015
· Injuries from electric contacts.	0.1	0.05	0.005
· Injuries from being hit or run over by vehicles.	0.1	0.05	0.005
· Injuries from traffic accidents.	0.1	0.1	0.01

## Ordered Risks Matrix

Risks	Probability	Impact	Factor
· COVID -19 injuries	0.7	0.4	0.28
· Fires	0.3	0.8	0.24
· Pollution caused by destroying existing utilities.	0.5	0.1	0.05
· Oil leakage	0.5	0.05	0.025
· Injuries from falling objects due to crumble or collapse.	0.3	0.05	0.015
· Injuries from stepping on objects.	0.3	0.05	0.015
· Injuries from cuts or blows from objects and tools.	0.3	0.05	0.015
· Injuries from traffic accidents.	0.1	0.1	0.01
· Killing wild animals	0.1	0.05	0.005
· Falls at the same level.	0.1	0.05	0.005
· Injuries from objects falling from above.	0.1	0.05	0.005
· Injuries from electric contacts.	0.1	0.05	0.005
· Injuries from being hit or run over by vehicles.	0.1	0.05	0.005

## Response plan

Risks	Factor	Response
· COVID -19 injuries	0.28	(Avoid )In addition to the protection procedures we make insurance
· Fires	0.24	(Avoid )make insurance
· Pollution caused by destroying existing utilities.	0.05	(Accept)Follow The CESMP
· Oil leakage	0.025	(Accept)Follow The CESMP
· Injuries from falling objects due to crumble or collapse.	0.015	(Accept)Follow The CESMP
· Injuries from stepping on objects.	0.015	(Accept)Follow The CESMP
· Injuries from cuts or blows from objects and tools.	0.015	(Accept)Follow The CESMP
· Injuries from traffic accidents.	0.01	(Accept)Follow The CESMP
· Killing wild animals	0.005	(Accept)Follow The CESMP
· Falls at the same level.	0.005	(Accept)Follow The CESMP
· Injuries from objects falling from above.	0.005	(Accept)Follow The CESMP
· Injuries from electric contacts.	0.005	(Accept)Follow The CESMP
· Injuries from being hit or run over by vehicles.	0.005	(Accept)Follow The CESMP

## Monitoring & Evaluation

The PM is responsible:

1. To ensure that the planned risk response plan is implemented and monitored.
2. Review and update the Risk Management Plan and register when amendments.
3. To communicate this Risk Management Plan and Register to the Project Manager and Task teams.
4. Periodically evaluate the effectiveness of the established controls

# Annex L

## SEA/SH Training for Contractors, Consultants and Clients

To properly Address SEA/SH, the training and sensitizing of workers is essential. These workers include civil works contractors (including sub-contractors and suppliers and their workers), supervising Engineers, consultants who may have a presence in the communities adjoining the project. Projects can seek to embed training modules that incorporate SEA/SH into the regular Occupational Health and Safety “toolbox” meetings with workers, official training and/or standalone training efforts. Partnering with health and education sector professionals may be beneficial in developing the curriculum.

Training on SEA/SH should be thorough and proportional to the SEA/SH risk. At a minimum, training should include:

- What SEA/SH is and how the project can exacerbate SEA/SH risks;
- Roles and responsibilities of actors involved in the project (the standards of conduct for project staff captured in CoCs);
- SEA/SH allegation reporting mechanism, accountability structures, and referral procedures within agencies and for community members to report cases related to project staff;
- Services available for survivors of GBV; and
- Follow-up activities to reinforce training content.

Training and awareness raising is a strong step toward behavior change. As projects are implemented, training on SEA/SH should be made available to the communities adjoining the project so they can learn about the roles and responsibilities of actors involved in the project, processes for reporting allegations of SEA/SH, and the corresponding accountability structures. Training of both the communities adjoining the project and project implementers allows all stakeholders to understand the risks of SEA/SH, as well as appropriate mitigation and response measures, putting everyone on the same page.

## Annex M – Accident Report Form

**Project name:**

**Date:**

The injured person's name:	
Age :	
ID number:	
Time of accident :	
Location of accident:	
Description: please describe the accident and attach the available photos.	

Site engineer:

Project manager: