

WORK REQUIREMENTS

FOR THE REHABILITATION OF AGRICULTURAL ROADS

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1. BACKGROUND INFORMATION

1.1 Partner Country

Republic of Lebanon

1.2 Contracting Authority

Green Agrifood Transformation for Economic Recovery –Green Plan PMU

2. OBJECTIVE, PURPOSE & EXPECTED RESULTS

2.1 Project Objective

The objective of the project is to improve rural community infrastructure to support agri-food development. It will focus on financing climate smart rehabilitation of agricultural roads to improve livelihoods of agricultural communities and increase climate resilience. The project will be implemented by the Green Plan in close coordination with respective unions of municipalities, or individual municipalities, Ministry of Agriculture (MoA), and Ministry of Energy and Water (MoEW). Operation and maintenance (O&M) will be the responsibility of the unions of municipalities or individual municipalities.

2.2 Results to be Achieved by the Contractor

The Contractor must deliver a completed rehabilitated agricultural road as described in the scope of works below.

The Works shall be executed in compliance with the design, Technical Specifications, applicable environmental, social, health and safety (ESHS) requirements, and the Environmental and Social Management Plan (ESMP) applicable to the Works.

In addition, the Contractor will submit a provisional and final handover certificate confirming that all the executed works are in compliance with the design and the conditions of the contract, including the applicable ESHS requirements.

3. ASSUMPTIONS & RISKS

3.1 Assumptions Underlying the Project

The advantages of the project must be perceived by the local population more important than any local discomfort caused by the construction of works.

The Contractor shall execute the Works under the supervision of the GP GATE PMU Engineer to properly complete the construction and handing over of works.

3.2 Risks

The main risk factors can be summarized as follows:

- Political instability will transform to conflict making activities related to this consultancy impossible.
- General security conditions prevailing in the area.

4. SCOPE OF WORKS

4.1 Project Description

The Contractor shall complete the rehabilitation, upgrading, and maintenance of the existing agricultural road in different roads across Lebanon including but not limited to necessary soil stabilization, drainage, and surface repairs needed to improve rural accessibility, at a minimum acceptable service condition for an agricultural road.

4.2 Geographical Area to be Covered

Different Road Locations over Lebanon :

ROAD NAME	Governorate	Caza	Village
Mazraat el Chouf - Ain El Bakalle	Mount Lebanon	Chouf	Mazraet El chouf
Barghoun- Fiaa	North Lebanon	Koura	Barghoun – Afsdik – Fiyaa-Bdabhoun
Wadi El Arayesh - Bahina	Bekaa	Zahle	Wadi El Arayesh
Hermel Mansoureh_Mfazzar	Bekaa	Hermel	Mansoureh

4.3 Target Groups

The target groups are mainly the farmers, the Municipalities, and their citizens residing in the above mentioned village and connecting villages.

4.4 General Contractor Obligations

Site visit:

The Contractor is deemed to have visited the site and accepted all conditions (access, utilities, existing infrastructure). No claims for lack of knowledge will be accepted.

Coordination:

The Contractor must coordinate with local municipalities, GP GATE PMU Engineer, and adjacent landowners. Any fees for permits or utility connections are borne by the Contractor.

Protection:

The Contractor must protect adjacent properties, agricultural land, crops and existing vegetation, maintain temporary access (including access to agricultural land and properties), and repair any damage to existing infrastructure or property caused by the works.

4.5 Physical Works

4.5.1 Earthworks and Site Preparation

Clearing and Grubbing:

- Stripping of topsoil (min 150mm depth) from areas requiring fill or excavation.
- Disposal of vegetation, debris, and deleterious materials to approved disposal sites shall be to approved disposal sites and shall include environmentally acceptable transport and disposal practices.
- Clearing, pruning and vegetation removal shall be limited to the areas necessary for execution of the Works.

- Stripping shall not proceed unless immediate earthworks follow. Stockpiling of topsoil for reuse on slopes.

Channel Cleaning:

- Cleaning of roadside rainwater channels associated with stormwater drainage of the road.
- Removal of sediments, silt, clay, gravel, reeds, and roots, includes pumping standing water, shoring for safe access, and disposal of debris.

Excavation:

- Excavation in any soil type (including manual excavation in narrow streets).
- For trench works Includes cutting pavement, planking/strutting, pipe laying (if applicable), and backfilling with selected or granular well compacted material.

4.5.2 Road Platform Rehabilitation and Asphalt Paving

Road Platform Rehabilitation:

- Restoration of cross-section to the width, length, and slopes required by the Contract Documents.
- Shoulder reconstruction and compaction

Asphalt Paving:

- Milling: Existing asphalt milling and saw-cutting where needed.
- Sub-Base Course: Supply and compact granular sub-base (The design thickness specified in the Drawing/Technical Specifications)
- Base Course: Supply and compact granular base course.
- Wearing Course: Supply and lay asphalt.
- Pothole Repairs: Cutting vertical sides, cleaning, tack coat, and lay asphalt.
- Correction of localized depressions and rutting before resurfacing
- Base and sub-base material
- Asphalt material

4.5.3 General Repairs and Drainage

General Repairs:

- Manholes: Grouting, cleaning, debris removal, and ensuring proper access.
- Channels: Grouting and cleaning
- Culverts: Structural cleaning and grouting.

4.5.4 Concrete and Retaining Wall Works

Retaining Walls:

- Construction, repair, strengthening, extension, or reconstruction of reinforced concrete retaining walls.
- Includes excavation, foundation preparation, drainage weep holes, reinforcement, formwork, concrete placement, and backfilling.
- The Contractor shall construct the type, geometry, foundation, drainage and protection measures shown on the Drawings and Technical Specifications. Any discrepancy between actual site/foundation conditions and the design assumptions shall be referred to the Engineer for assessment before proceeding.

Side Retaining Walls:

- The cost of all above-mentioned repairs to concrete surfaces, including application of cement plaster, and re-casting shall be deemed to be included in the unit rates for concrete work in the Bill of Quantities and shall not be paid for separately.
- Construction of dry stone wall
- Construction with stone and foundation or cyclopean substructure in accordance with design drawings and specs.
- Construction with stone and foundation or cyclopean substructure, topped with dry-stone construction

Support walls for excavations and cladding walls:

- The dimensions at the top of the wall shall be in accordance with design drawings and specs.
- The contractor is specifically obligated to bring in qualified master masons, and anyone whom the engineer deems lacking the necessary competence shall be dismissed from work immediately, based on a report from him and the approval of the administration. If a defect is found in the construction of the walls, or if the alignment with the road line is not observed in the construction, the contractor is obligated to demolish the wall and rebuild it at his own expense.
- All walls shall be founded on a continuous footing excavated into the ground to a depth dictated by the nature of the site, the required founding level shall be as shown on the approved drawings and shall be verified against the actual competent founding stratum. Where unsuitable or differing ground conditions are encountered, the Designer/Geotechnical Engineer shall determine the required treatment through a formal design review. . The supervising engineer has the authority to estimate, for example, the exploration of the construction. Therefore, the contractor must, after completing the foundation excavations, obtain a written directive (approval) from the engineer to proceed directly with the construction. Likewise, upon completion of the construction, The Contractor shall notify the Engineer before covering or backfilling any foundation, drainage layer or concealed portion of a retaining wall. Measurements, survey records and photographic records shall be completed and the work shall receive written inspection release before covering or backfilling. .
- For walls built with a mix of concrete and rocks the contractor must ensure the drainage of water trapped behind the wall by placing a layer of gravel/ rubble behind the wall, with a thickness of 25 centimeters, separating the backfill from the wall. Drainage openings (weepholes) must penetrate the wall from the inside to the outside, with a width of 10 centimeters and a height (unspecified, likely similar), at the bottom of the wall at the base, and at every 1.5 meters of height. The distance between each opening and the next shall be a maximum of 2 meters, and these openings must be arranged in a staggered pattern between each course.
- Retaining walls for backfill made of single wire mesh and stone (Gabions): Execute gabion protection only at the locations and to the dimensions shown on the Contract Drawings and is subject to displacement and consequent collapse, the contractor is obligated to build walls of gravel with measurements Refer to the gabion wall drawings and performance/material specifications . Large stones are placed towards the outside and smaller ones on the inside, and they are built in compacted courses after placing half a gabion in the foundation. The gabions are placed empty and then tied with wire of the same type and specifications, according to the plans and instructions of the supervising engineer.

4.5.5 Reinforced Concrete Canals

Reinforced Concrete Canals (U-type/ L-type / Storm):

4.5.6 Extensions of Existing Concrete Structures

- Extensions of Existing concrete structures

4.5.7 Culverts and Pipes

- Culverts & Pipes

4.5.8 Grouted Riprap

- Grouted Riprap

4.5.9 Metal Works

Metal Works:

Supply and Install Visibility Signs (Galvanized Steel with Lamination)

- Supply & Installation: Supply and install 150 x 2700 cm (as indicated in attached drawing) visibility signs made of galvanized steel with lamination as per Engineer's design, including all fittings, poles, accessories, and necessary hardware.
- Materials & Mounting: Apply lamination to enhance visibility and protect signs from outdoor conditions; provide galvanized steel poles and concrete foundations to securely mount the signs with proper alignment and orientation for maximum visibility.
- Testing & Commissioning: Conduct testing and commissioning to the satisfaction of the Engineer.

Handrails:

- Safety Rail (90cm height): Mild steel (40mm dia, 3mm thick). Continuously welded, ground smooth, galvanized or powder-coated. Installed at high-drop locations.

Fencing:

- Wire Mesh Fence (190cm height): PV coated galvanized mesh (5cm x 5cm x 3mm).
- Barbed Wire: Galvanized steel razor wire (50cm dia) with tensioners on top.

Miscellaneous Metalwork:

- Protection Bars: Steel bars at drainage pipe inlets.
- Ladders/Covers: Stainless steel or galvanized ladders and access covers.

4.5.10 Construction, Testing and Commissioning

- Construction, Testing and Commissioning
- Contractor is responsible for operation of the system, construction methods, shop drawings, temporary works and specifically identified Contractor-designed elements. , including
- Site Preparation: Clearing, pruning, and excavation as required.
- Design Verification: Checking drawings against site conditions; flagging discrepancies to the GP GATE PMU Engineer.
- Spare Parts: Supply and delivery of spare parts as indicated in the BOQ.
- Testing & Commissioning: Refer to all testing and acceptance requirements specified in the Contract, including approved Inspection and Test Plans.
- Training: Training of the municipality personnel in operation and maintenance of new gates/culverts.

5. PROJECT MANAGEMENT AND COORDINATION

5.1 Responsible Body

Green Agrifood Transformation for Economic Recovery – Project Management Unit GP GATE PMU.

5.2 Facilities to be Provided by the Contractor

The Contractor, the target Municipalities and GATE PMU will cooperate and support each other to ensure smooth implementation. However, the Contractor of Works will provide an office for the site Green Plan GATE PMU engineers during the implementation phase, in case requested by GP GATE PMU.

5.3 Coordination with Municipalities, Authorities and the Local Community

The Contractor should always coordinate with and inform the municipalities and any concerned authorities in advance for any temporary blockage of roads or other traffic or access restrictions necessary to execute the works.

The Contractor shall coordinate the execution of the Works so as to maintain, to the extent reasonably practicable, safe access for local residents, farmers, adjacent landowners and other road users, including access to agricultural land and properties. Where temporary access restrictions are unavoidable, the affected persons and the concerned municipality shall be informed in advance.

The contractor is responsible to set up meetings and shall follow up any issue related to this project with the local and national authorities.

The Contractor shall not accept any request for additional works from the municipality or other authority unless instructed or approved in writing by the GP GATE PMU Engineer in accordance with the Contract. Any unauthorized additional works undertaken by the Contractor shall not be eligible for additional payment.

6. LOGISTICS AND TIMING

6.1 Location

Different Road Locations over Lebanon :

ROAD NAME	LENGTH	COORDINATES
Mazraa Ain El Bakalle et el Chouf -	5.32KM	START: 33°38'12.74"N, 35°35'19.04"E END: 33°37'14.50"N, 35°35'47.42"E)
Barghoun Fiaa	3.24 KM	START: 34°20'32.18" N,35°45'44.43"E END: 34°20'26.44"N ,35°47'06.81"E
Wadi El Arayesh - Bahina	3.61 KM	START: 33°52'26.15"N, 35°54'25.56"E END: 33°51'33.58"N, 35°55'15.50"E
Hermel Mansoureh_Mfazzar	3.058 KM	START: 34°25'27.66"N, 36°24'26.94"E END: 34°25'51.15"N, 36°26'11.39"E

6.2 Starting Date and Completion Period

The Contractor is expected to commence the works as mentioned in the contract appendix under clause "commencement date". The overall time for completion of the Works is 5 months including the snag list period, effective from the kick off meeting that is expected to be done within 1 week from contract signature date. If the site kick off meeting was delayed by the contractor and exceeded the above-mentioned period, then one of the below will apply:

The contract period will start automatically after 1 week of the contract signature date even if the meeting was not held.

GATE PMU might cancel the contract based on contractor default.

6.3 Weather Interruptions

In case the work is to be executed during the winter season (rainy season); then the Contractor will be fully responsible to respect and meet the deadlines by increasing the project resources during the sunny days to make up for the time that would be lost during the rainy days at no additional cost to GP GATE PMU.

6.4 Extension of Tim

Extensions, if deemed necessary, can only be granted through mutual agreement between GP GATE PMU and the contracting company. Acts or events that may justify extension of the works are mainly due to security reasons where it had not been in place during the bidding process, or for extreme unexpected bad weather conditions. The requests for extensions of time issued by the Contractor shall be coupled with detailed particulars, as well as an action plan showing the measures intended to be taken by the Contractor to mitigate the impact of any delay necessitating the requested extension of time.

7. CONTRACTOR PERSONNEL, SUPPORT AND EQUIPMENT

7.1 Key Staff

7.1.1 Infrastructure Engineer (Full-Time)

- A university degree in Civil engineering or relevant experience in road/infrastructure construction, including road rehabilitation, drainage and associated concrete/retaining structures.
- Minimum 5 years of experience infrastructure projects
- Previous experience in road projects.

7.1.2 Site Surveyor (Full-Time)

- A university degree or equivalent in topography, surveying or related field
- Minimum 5 years of experience in infrastructure projects
- Previous experience in road projects.

7.1.3 Safety Officer (Full-Time)

- Diplomas or certificates in safety field are required
- Minimum 5 years of experience in safety of construction or infrastructure projects

7.1.4 Environmental and Social (E&S) Expert (Part-Time)

- A university degree in environmental science, social science, engineering, or a related field, with a minimum of 3 years of relevant experience
- Experience in the implementation of Environmental and Social Management Plans (ESMPs), C-ESMPs, or similar environmental and social safeguard instruments on construction or infrastructure projects.
- Familiarity with World Bank Environmental and Social Standards (ESSs) and applicable Lebanese environmental and labour legislation.

7.1.5 Occupational Health and Safety (OHS) Expert (Part-Time)

- A degree in occupational health and safety, engineering, or any related field, or equivalent professional experience in construction safety and OHS management
- Minimum 5 years of experience in occupational health and safety management on construction or infrastructure projects.

- Familiarity with infrastructure construction risks, applicable occupational health and safety requirements, and World Bank ESS2 (Labor and Working Conditions).

7.1.6 Technician / Foreman (Full-Time)

- Previous experience in construction or infrastructure projects (5 projects at least). Cumulative experience for the past 7 years.

7.2 Support Staff and Technical Support

The Contractor will provide support facilities to their technical/support personnel and all associated costs are included in the Contract Price.

Backstopping and support staff costs must be included in the fee rates.

7.3 Machinery and Equipment

List of the Machinery and equipment owned or can be rented by the bidder/and Proposed for the Contract execution. The Contractor shall provide all plant, machinery and equipment necessary to execute the Works in accordance with the approved program, method statements and Technical Specifications. The Bidder shall submit a proposed equipment schedule identifying the type, capacity, quantity, ownership or secured access arrangement, and intended use of major equipment. Mandatory minimum equipment requirements shall be limited to items considered essential by the Employer and shall permit technically equivalent or superior equipment. The minimum equipment list should include the following:

One Excavator (حفارة جنزير (21 طن+) (Used only in specific areas if needed, and upon GP Gate PMU written approval)

One Bobcat machine (آلة بوبكات (Used only in specific areas if needed, and upon Green Plan PMU written approval)

Pneumatic Tire Roller (محدلة دواليب)

Steel Wheel Roller (محدلة حديد)

Asphalt Paver (فلاشة زفت)

One Concrete Mixer 400 Liters or concrete supply/production arrangement capable of meeting the specified quality, volume and placement requirements (جبالة باطون)

Two Water Tanks 6,000 Liters (خزان مياه)

Trucks (شاحنة كبيرة)

One Pickup truck (شاحنة صغيرة (بيك أب)

One Concrete Vibrator (رجراج باطون)

One Trench/plate Compactor 1- 2 tons (محدلة خنادق)

Loose equipment including but not limited to electric Grinder, steel bending machine, electric steel scissors, etc.

8. SUBMITTALS, SURVEYS, QA/QC, DRAWINGS AND HANDOVER

8.1 Surveys and Drawings

Topographic Survey: The Contractor shall carry out a pre-construction verification and setting-out survey to verify the existing conditions, dimensions, levels and coordinates against the Contract Drawings. Any discrepancy shall be reported to the GP GATE PMU Engineer before commencement of the affected Works. The Contractor shall not modify the permanent design without written instruction or approval from the GP GATE PMU Engineer.

Shop Drawings: to be submitted and approved by the GP GATE PMU Engineer before execution.

As built Drawings to be submitted before the provisional acceptance along with the Provisional acceptance.

8.2 Site Operating Procedures and Technical Supervision

The Contractor shall assign a surveyor to carry out site topographic surveys as required for the proper execution of works and to ensure the site work is in line with the required specifications. The Contractor shall also assign a resident site engineer to follow-up on the works and to coordinate with the GP GATE PMU Engineer. The site engineer shall have good knowledge and practical experience in buildings' construction projects. The Contractor site engineer shall report on a weekly basis to the GP Gate PMU Engineer on the progress of the work. In case of any changes, the Contractor site engineer shall inform the GP GATE PMU Engineer before proceeding with any modifications. The Contractor shall maintain a good level of coordination with the project staff and local community especially the Municipality in order to ensure smooth implementation of the fieldwork.

8.3 Submittal and Review Periods

Within seven (7) calendar days of signing the Contract, the Contractor shall submit for the GP GATE PMU Engineer's approval a schedule of document submittals, detailing all submittals to be made along with their expected submission dates. This schedule should cover all anticipated document submittals, such as but not limited to materials submittals, shop drawings, method statements, C-ESMP, OHS Manual, Traffic Management Plan, etc. The schedule of submittals must consider that all submittals should be furnished to the GP GATE PMU Engineer within three (3) weeks from signing the Contract and should specify the material delivery period related to each of the listed material submittals.

Notwithstanding the above three-week period, the Contractor shall, prior to mobilization, prepare and submit for the review and approval of the GP GATE PMU Engineer a subproject-specific Contractor's Environmental and Social Management Plan (C-ESMP), an Occupational Health and Safety (OHS) Manual, and a Traffic Management Plan, prepared in accordance with the applicable site-specific ESMP and other Projects E&S instruments, and proportionate to the nature and risks of the Works. The C-ESMP shall translate the mitigation, monitoring, and reporting measures of the applicable site-specific ESMP into the Contractor's own means, methods, and schedule of work.

Submittals shall be developed using the standard forms of the GP GATE PMU, which will be communicated to the Contractor during the kick-off meeting. It remains the Contractor's responsibility to formally request these forms in case they are not provided during the said meeting.

Any necessary re-submittal shall be issued within five (5) calendar days from the request date. Delays resulting from failure to obtain approval from the first submittal shall be the sole responsibility of the Contractor.

Timely submission of the submittal schedule shall form a pre-requisite for releasing any due payment under the Contract. Delays in finalizing submittals in accordance with the approved schedule of document submittals could result in suspending any due payment to the contractor until all required submittals have been provided to the satisfaction of the GP GATE PMU Engineer.

The GP GATE PMU Engineer shall reply to the Contractor within a maximum of ten (10) working days from receipt of any submittal, provided that where batch submittals are issued by the Contractor, additional days for revision shall be entitled as reasonably required.

8.4 Handover Documentation

Handing over report with final as-built drawings, survey records, material certificates, inspection and test records, testing/commissioning results, closed NCRs, snag-list closure, warranties and O&M information where applicable. As-built information for buried/concealed works shall be recorded progressively during construction.

8.5 Warranty and Completion Requirements

Defects Liability Period: 1 year from the date of the provisional acceptance.

Warranty: Covers all materials, equipment, and workmanship. The Contractor must replace any defective component at no cost to the GP GATE PMU.

Handover: The Contractor must hand over fully functional systems, complete with as-built drawings, operation manuals, and certification of testing.

9. REPORTING

9.1 Daily and Periodic Progress Reporting

Daily Reports to be submitted daily, including labor graphs, photographic records, and log sheets.

Progress Reports to be submitted on bi-weekly bases, and with each payment application, including editable time schedule, and progress BOQ.

Bi-weekly report using GP GATE PMU form

9.2 Employment and Work person-Day Reporting

Monthly reports on number of work person-days, jobs created and amount of remuneration for each labour completed along with names of laborers should be submitted to GP GATE PMU. In the calculation of the generated work person-days and jobs created, the contractor can include the following:

Work person-days generated from the labour employment on site (based on 8 hours per day).

Contractor back office and engineer working on this project.

The paid overtime of workers on site (reporting actual hours worked).

Workperson's days generated from the manufactured raw material produced on site. Supporting documents for these numbers to be submitted.

9.3 Method Statements and Work Programme

Method statements and the work program should be submitted after contract award and sufficiently before commencement of the relevant activities for review/approval. Activity-specific method statements should be required for major works.

9.4 Payment Progress Report

Payment progress report. This progress report shall include:

- Photographic records.
- Brief description of the project.
- Updated schedule including budget and schedule KPIs
- Updated submittal register

9.5 Monthly Environmental, Social and OHS Monitoring Report

The Contractor shall submit a Monthly Environmental, Social and OHS Monitoring Report, prepared jointly by the Contractor's Environmental and Social (E&S) Expert and Occupational Health and Safety (OHS) Expert, including:

- Status of implementation of the approved C-ESMP, OHS Manual and Traffic Management Plan;
- An incident/accident register (including near-misses);
- Grievances received through the GRM and their resolution status; and

- Any child labour, GBV, or SEA/SH-related concerns.

9.6 Handover Report

Handing over report with final as-built drawings, survey records, material certificates, inspection and test records, testing/commissioning results, closed NCRs, snag-list closure, warranties and O&M information where applicable. As-built information for buried/concealed works shall be recorded progressively during construction.

9.7 Submission and Approval of Reports

Reports shall be submitted electronically, in English Language, digitally signed by the Contractor Representative, and digitally approved within two weeks by the GATE PMU representative.

9.8 Consequences of Non-Submission

Failure to provide the above shall result in holding the interim and final payments until providing the above.

10. ENVIRONMENTAL, SOCIAL, HEALTH AND SAFETY REQUIREMENTS

10.1 General ESHS and Visibility Requirements

The Contractor shall comply with the applicable environmental and social requirements and instruments prepared for the Project, including the applicable site-specific Environmental and Social Management Plan (ESMP), Labor Management Procedures (LMP), Stakeholder Engagement Plan (SEP), including the Project Grievance Redress Mechanism (GRM), and other applicable Project E&S instruments, as well as the approved Contractor's Environmental and Social Management Plan (C-ESMP). The site-specific ESMP shall form an integral part of the contract.

Safety, Health, and visibility

The Contractor shall:

- Fully comply with applicable safety regulations and laws.
- Provide and maintain a Project identification board as per GP-GATE standards.
- Provide and maintain appropriate security signs, fencing, and lighting.
- Be fully responsible for medical assistance and transportation in case of injury, at no extra cost to the GP Gate PMU.

10.2 Site Safety

The Contractor shall:

- Implement the approved Occupational Health and Safety (OHS) Manual throughout the execution of the Works;
- Implement strict safety measures on site in view of the type of works being implemented;
- Follow the applicable World Bank requirements on Safety, Health and Welfare on Construction Sites.
- Provide and erect protection items required by site conditions or as requested by the GP GATE PMU Engineer to protect the persons onsite and property offsite.
- Implement the worker and community health and safety measures set out in the applicable site-specific ESMP, including measures to secure work areas, maintain safe access, provide appropriate warning signs and barriers, and protect workers, road users and nearby communities from construction-related risks.
- Equip construction sites with safety kits in addition to work signs, warning tapes, safety bollards or protection objects to prevent any kind of accidents.

- Hold regular training and awareness sessions for all the staff and labor regarding any necessary health measures as recommended by GP GATE PMU or the Ministry of Public Health as applicable.
- Maintain protection in place until work is complete, and danger of damage has ceased; at such time as approved by the GP GATE PMU Engineer, remove protections.

10.3 Traffic Management

The Contractor shall prepare and implement the Traffic Management Plan (TMP) in accordance with the applicable site-specific ESMP and other Project E&S requirements. The Contractor shall implement all traffic and access management measures specified in the applicable site-specific ESMP, including, as relevant, measures for traffic control, temporary diversions or closures, signage and barriers, safe access to properties and agricultural lands, pedestrian safety, and coordination with the GP GATE PMU Engineer and relevant authorities.

10.4 First Aid Facilities

The contractor shall:

- Provide and maintain adequate first aid facilities on the site in accordance with the requirements of Public Health Authorities in the Republic of Lebanon and the Lebanese Labour Code.
- Immediately notify the GP Gate PMU Engineer in writing of any accident occurring in connection with the Works, in accordance with the incident reporting requirements of the applicable site-specific ESMP and other Project E&S instruments.

10.5 Environmental Standards

The Contractor shall:

- Implement the recommendations and measures included in the applicable site-specific Environmental and Social Management Plan (ESMP);
- Report on progress to the GP Gate PMU Project Manager and flag any risks or issues related to the implementation of the applicable site-specific ESMP;
- Perform all site activities in an environmentally sound manner, including consideration of impacts on the natural environment and water, dust and emission suppression, and the proper handling and disposal of all wastes resulting from activities undertaken under the Contract; and
- Manage, store, transport and dispose all waste generated by the Works in accordance with the waste management and disposal requirements of the applicable site-specific ESMP, including the use of approved disposal locations, as applicable;
- Implement the Chance Find Procedure set out in the applicable site-specific ESMP. In the event of a chance find, the Contractor shall immediately suspend works in the affected area, secure the site, notify the GP GATE PMU Engineer, and comply with the requirements of the applicable site-specific ESMP and the instructions of the competent authorities before resuming works; and
- Implement the Works in full compliance with the approved Contractor's Environmental and Social Management Plan (C-ESMP) throughout the Contract period.

10.6 Social Safeguards

In accordance with the Project LMP, SEP, GRM and other applicable Project E&S instruments, the Contractor shall:

- Ensure that no person under the age of 18 is employed for Project activities;

- Provide equal employment opportunities for women and encourage female participation, particularly in skilled and management positions;
- Encourage the employment of persons with disabilities in accordance with applicable Lebanese legislation;
- Provide adequate drinking water, toilet and washing facilities for workers and ensure safe transportation to and from the work sites;
- Publicize and support the implementation of the Project GRM for workers and the local community, including displaying GRM contact information, forwarding grievances received to the GP GATE PMU and the Contractor's E&S Expert, maintaining a grievance log, and cooperating in their timely resolution; and
- Ensure that all Contractor personnel, including subcontractors, sign and comply with the Project Code of Conduct, including provisions related to GBV and SEA/SH, and receive the required induction and awareness sessions.

10.7 Labour and Working Conditions

The Contractor shall comply with the Project Labor Management Procedures (LMP), applicable Lebanese labour legislation, and the relevant requirements of World Bank ESS2 on Labor and Working Conditions. The Contractor shall ensure that its subcontractors comply with the same requirements.

The Contractor shall:

- Comply with the Project minimum age requirements and the prohibition of forced or compulsory labour;
- Ensure non-discrimination, equal opportunity and equal remuneration for work of equal value;
- Comply with applicable requirements on payment of wages, working hours, rest periods, and other terms and conditions of employment;
- Protect workers' rights in accordance with applicable legislation;
- Promptly resolve any dispute concerning delayed, incomplete or non-payment of wages. Where the Contractor defaults on payment, the GP Gate PMU may pay amounts due to workers from monies due or which may become due to the Contractor under the Contract. The Contractor shall cooperate with the GP Gate PMU in processing such payments, including by providing the relevant muster rolls, workday reports and pay sheets; and
- Not perform work outside the agreed site working hours unless prior written authorization has been obtained from the GP Gate PMU.

11. CONTRACT ADMINISTRATION AND COMMERCIAL PROVISIONS

11.1 General Standards of Performance

The Contractor shall perform the required services and carry out the Contractor's obligations under this Contract with all due diligence, efficiency and economy, in accordance with generally accepted techniques and practices used in performing such types of activities and with recognized professional engineering and contracting standards recognised. The Contractor shall observe sound management, and technical engineering practices, and employ appropriate advanced technologies and safe and effective equipment, machinery, materials and methods. The Contractor shall operate and maintain the equipment and machinery involved in the implementation activities in accordance with the relevant laws, standards, regulations and legislation, as well as the requirements under the Contract, and the manuals and guidelines as provided by the manufacturers and suppliers of the equipment and machinery.

11.2 Priority of Contract Documents

All combined documents that form this contract shall be mutually complementary, explanatory, cumulative, additive and not alternative and what is required by one document shall be required by all.

11.3 Quantities Mentioned in the Bill of Quantities

Quantities included in the breakdown of the Lump Sum shall not be re-measured after execution. The Contract is a lump sum contract with itemized BOQ. The Contractor shall during the tender phase, verify and check the quantities for any discrepancies or mistakes. In case of discrepancies, the Contractor shall during the tender phase raise this issue to the GP Gate PMU by sending a table showing the location of discrepancies for GP Gate PMU 's verification. The GP Gate PMU will assess and answer the contractor's query with the amended quantities if there is any.

Where an item of work has been included in the breakdown of the Lump Sum but neither the specification nor the drawings indicate that such an item is required, it shall be deemed that it is in work which is required to be executed by the contractor in fulfilment of his obligation under contract.

Where an item of work is indicated in the specification and/or on drawings but has not been included or referred to in any way in the breakdown of the Lump Sum, it shall nonetheless be deemed both that the full value of that item of work was included in the tender and that it is work which is required to be executed by the contractor in fulfilment of his obligation under the contract.

Where an item of work included in the BOQ is described there in more detail and/or is specified to a higher standard/ value than that which is indicated in the specification and/or on the drawings, it shall be deemed both that due allowance for the full value of that item of work as described in the BOQ was included in the tender and that it is in work which is required to be executed by the contractor in fulfilment of his obligation under the contract.

Where the specification and/or drawings indicate a higher standard/value for an item more than it is described in the breakdown of the Lump Sum, it shall be deemed both that due allowance for the full value of that item of work as described in the specification and/or drawings was included in the tender and that it is in work which is required to be executed by the contractor in fulfilment of his obligation under the contract.

In case of any of the occurrences described above, the same shall not vitiate or invalidate the contract but shall be treated as an ambiguity or discrepancy and shall be explained and adjusted by GP Gate PMU engineer as set in the priority of documents.

Breakdown of the Lump Sum. The contractor is required to submit to the GP Gate PMU engineer with the tender a detailed breakdown for each of the Lump Sum items contained in the BOQ identifying the supply of materials, labours, equipment, overhead and profit for each priced item.

11.4 Contractor Liability

Approval by the GP GATE PMU Engineer on any Contractor submittal shall not release the Contractor of any of its responsibilities and liabilities under this contract.

The Contractor's offer should include the cost of any necessary calculation notes and/or design load verifications that may be required during project execution.

The Contractor is also liable to highlight in writing, before signing the Contract, any mistakes, errors or omissions in design and details or changes in site conditions that are likely to affect the Contractor's performance of its

obligations under the Contract. Should the Contractor fail to abide by this set time frame, it shall risk losing all rights and entitlements arising from the same.

This sub-clause shall not be construed to apply to differences in quantities mentioned in the BOQ, which shall be dealt with in accordance with section-related quantities mentioned in the BOQ.

11.5 Insurance Coverage

The Contractor shall provide immediately following the signature of the Contract, the Contractor All Risk Insurance, workmen compensation insurance, Third party liability insurance and the contractor's plant and equipment and machinery insurance. The workmen compensation insurance shall be valid for the entire duration of the Works and shall cover work-related accidents, including transportation to and from the work site. Access to the site shall not be permitted until satisfactory insurance policies have been put in place in line with the Contract Requirements, and the Contractor shall be solely responsible for delays resulting from its failure to timely provide such insurances.

11.6 Warranty

Under this contract, the contractor should provide the warranties mentioned in the specification for each item. Moreover, for each warranty, the contractor should provide a local representative office in the country and after-sales service for equipment/parts.

11.7 Performance Bank Guarantee

The performance security of this project shall be 10% of the project contract amount which will be released by the end of the defect liability period (DLP). If the contractor fails to remedy any defect or damage occurred to the project during the DLP (excluding the problems related to design or misuse of the project) after being notified to do so in 1 week, then the GP Gate PMU has the right to hire an independent contractor to repair the damages or remedy the defects and pay him by using the performance security without any prior consent, approval or knowledge from the contractor.

DLP is set at one year from the date of completion of the Works stated in the Certificate of Substantial Completion issued by the GP GATE PMU Engineer.

11.8 Price Schedule

The bidder shall price each item shown in the BOQ individually and in US dollars only. Any bidder that has priced an item on percentage base will be disqualified. Moreover, any item left unpriced will be deemed to be included in other items mentioned in the BOQ.

The Contractor shall include in its price, a provision for the supply of any temporary services that are necessary for the proper performance and execution of the Contract works. These include, but are not limited to water (potable and domestic), power, electricity, lighting, storage facilities and sheds, labor accommodation, toilet facilities, offices, Engineer offices, etc.

The Contract Price shall also include all costs associated with compliance with the ESHS requirements of the Contract and the applicable Project E&S instruments, including implementation of the approved C-ESMP, OHS Manual and Traffic Management Plan.

Any discount offered by the bidder shall be applied uniformly on a pro-rate basis to all items in the Bill of Quantities, and to items of any necessary variation (if any) made by the GP Gate PMU , which shall be a part of the Tender Documents.

11.9 Variation Orders

In case of variation order, the following statement will be applied:

If GP Gate PMU has any additional quantities, the costs will be calculated based on the contractually specified unit rate by the Contractor where contract unit rates are available. In the case where the additional items are not included in the contract, a market assessment shall be completed to validate the new rates.

For any omitted item requested by GP GATE PMU Engineer, the full amount related to those omitted items will be deleted completely including all monetary related to overhead & profit and coordination fees. No amount whatsoever will be paid to the contractor as compensation for the omission of those items.

12. PAYMENTS

12.1 Payment Provisions

Payments shall be made based on certified physical progress of the Works and in accordance with the approved Scope of Works (SoW), Bill of Quantities (BOQ), specifications, and Contract requirements.

All payments will be made in the currency stipulated in the Contract.

The Contractor shall be entitled to the following payments upon certification by the GP GATE PMU Engineer:

25% of the Contract Price upon completion of 25% of the Works;

70% cumulative payment upon completion of 70% of the Works;

90% cumulative payment upon Provisional acceptance of the Works;

100% of the Contract Price upon Final acceptance of the Works.

No payment shall be made for materials delivered to the site that have not been incorporated into the Works.

The GP Gate PMU shall pay the certified amount within thirty (30) calendar days from the date of approval of the payment certificate.

The GP GATE PMU Engineer may withhold or reduce payments if the Contractor fails to comply with contractual obligations, including submission of required reports and documentation, environmental, social, health and safety (ESHS) requirements, including implementation of the approved C-ESMP, OHS Manual and Traffic Management Plan, quality standards, or completion of defective works.

Final payment shall be subject to satisfactory completion of all contractual obligations and issuance of the Final Completion Certificate by the GP GATE PMU Engineer

13. LIST OF ANNEXES

ANNEX 1: Drawings

ANNEX 2: Bill Of Quantities

ANNEX 3: Specifications

ANNEX 4: Site Photos (Riprap Wall for Mazraat El Chouf)

ANNEX 5: Project Environmental and Social Management Plan (ESMP) for Mazraat El Chouf, Barghoun, Wadi El Arayesh, and Mansoureh Agricultural Roads.

ANNEX 6: Project Labor Management Procedures (LMP)

ANNEX 7: Project Stakeholder Engagement Plan (SEP)

ANNEX 8: PROJECT GRIEVANCE REDRESS MECHANISM (GRM)