Section 7. Terms of Reference

1. PROJECT BACKGROUND

The S.A. „Administrația Națională a Drumurilor" (National Road Administration (NRA)) is the government entity responsible for the road transport network, including its construction, repair and maintenance within the Republic of Moldova.

The European Investment Bank (the "Bank" or "EIB") has provided financing towards a loan to the S.A. "Administrația Națională a Drumurilor" ("the Employer", "the Promoter" or "the Client") for the Moldova Roads III B ("the Project").

The Project objective(s) is to engage a suitably qualified Engineering Consultant ("the Engineer" or "the Consultant") to provide Contract Administration and Engineering Supervision services for Civil Works Contracts for the construction of selected road within the Republic of Moldova.

The expected outcome is to achieve within the designated contract period and allocated budget high quality roads with sound engineering properties that are safe for the public to travel. The timely implementation of the projects and the issuance of the Taking-Over Certificates, elimination of defects and issuance of Performance Certificates and Final Payment Certificates are essential to achieving this outcome.

The "Consultant" will be required to undertake the role of the "Engineer" as defined in the Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer ("Red book") Second edition 2017, reprinted 2022 with Amendments" published by the Federation Internationale Des Ingenieurs – Conseils (FIDIC), called "FIDIC" in this document from hereon.

The Services to be provided by the Consultant will last about 58 months, which includes 1 month for pre-Commencement activities, 30 months of works supervision, 24 months covering Defects Notification Period and 3 months for project closure tasks including the Performance Certificate Final Certificate and other required tasks.

Consultants are expected to demonstrate in their proposals for the Supervisory works their understanding of the project in terms of structure, location and tasks required of the Consultant both in terms of Contract & PCC requirements, Statutory, EIB and Employer requirements as per the tasks (and sub-tasks) defined in the Terms of Reference (TOR). Such data must be presented in logical and well-structured manner.

Services shall include, but not be limited to:

(a) establishment of systems for contract administration and site supervision for civil Works Contracts.
(b) the administration of Contracts including all start-up, implementation and project closure tasks.
(c) control of works quantities and Contracts costs;
(d) monitoring and reporting the progress of the Works and maintaining technical records;
(e) verification and certification of Contractors' interim and final payment certificates;
(f) Project start-up tasks include the issue of Notice to Commence the works, the acceptance and/or approval where required of Contractors' key staff, insurances, guarantees, licenses,

programs, method statements, traffic management plans, safety measures, suppliers and materials for incorporation in the works, the quality assurance and control plans, laboratory provisions and execution of the testing program, subcontractors, plant, equipment and environmental protection;
(g) direct supervision of the works and monitoring of progress including weekly analysis of the work implemented against planned works and reporting outcomes to the Employer; (h) preparation of progress, technical and contractual reports,
(i) monitor execution of the control tests of all materials intended for incorporation into permanent works and the all executed works.
(j) holding weekly progress meeting with the Contractors, recording and submitted signed copies of minutes to the Employer.
(k) attending and recording minutes of monthly progress meetings with the Employer and the Contractor.
(l) managing the process for Contract Variations in a timely manner where they are required.
(m) management of Claims and claim procedures in accordance with Contract and PCC requirements.

2. PROJECT ORGANISATION AND MANAGEMENT

The Project will be managed on a day-to-day basis by the Client.

The Client will have day-to-day responsibility for the assets to be financed via the Project and will co-ordinate all activities under the Project and coordinate between the contractors, and the EIB.

3. OBJECTIVE OF THE ASSIGNMENT

The overall objective of the assignment is for the Consultant to act in the role of Supervision Engineer as per FIDIC Second edition 2017, reprinted 2022 with Amendments for the contract, (that is part of the scope of this assignment as defined in Part 1, Project Background).

In doing so, the Consultant will fulfill the role and attributions of the “Engineer” as defined in the FIDIC Conditions of Contract and Particular Conditions of Contract as amended for the contract.

In addition, the Consultant will assist the Client with all aspects concerning contracts administrations, disbursement, and environmental and social (E&S) requirements specific to the Supervision Contract.

With the involvement of the Consultant, the Client will have access to the best practice in the implementation of the Project administration of works contract, as well as advice on specific technical issues including E&S requirements.

The main objective of the assignment for the Consultant is to assist the Employer in the administration of the Bank-funded works Contract on M3 Cimislia Bypass, km 18+700 - km 26+138.

3 SCOPE OF SERVICES, TASKS (COMPONENTS) AND EXPECTED DELIVERABLES

1. The Consultant shall perform the following main tasks: (i) Management of the works contract and, (ii) Supervision of the Works Contract.

2. **Management of the Works Contract**: The Consultant will be required to undertake the role of the "Engineer" as defined in the FIDIC conditions of the Works Contract. The Consultant shall perform the duties and authority of the Engineer as specified or necessarily implied from the Works Contract as well as administer the Works Contract.

3. The Consultant ('Engineer") and his site management team must have a clear understanding of the scope of the works, including understanding of the site location, existing geographical conditions, and the main project components in terms of the quantity and nature of the works (pavement type / structure / bridges / drainage etc) and the approved implementation period of the works.

4. The Consultant shall perform his duties and act proactively, where the initiative lies with the Engineer in administering the Contract and in addition providing all necessary warning and reminders to the Contractor and the Employer to ensure timely and smooth implementation of the project and to avoid circumstances that would lead to claims by the Contractor or Employer, by timely attending to responses to the Contractor's or the Employer's requests; while observing the requirements of the Contract.

5. The Consultant shall perform the Services in accordance with the laws and any other instruments having force of law in the Republic of Moldova as may be issued and in force during the Contractual period.

6. **Supervision of the Works Contract**: The consultant shall be responsible for the comprehensive day-to-day supervision of the Works Contract. This includes ensuring that all civil works and related activities are executed and completed in strict accordance with the Contract terms, technical specifications, and relevant documentation. The consultant will apply international best practices to monitor progress, quality, and compliance, ensuring that the project adheres to safety standards, environmental regulations, and timelines. The consultant's role encompasses overseeing contractor performance, verifying material quality, inspecting construction methodologies, managing project records, and facilitating effective communication between stakeholders to ensure successful project delivery.

7. In addition, the Client shall nominate one firm, the Designer, as sub-consultant to assist the Supervision Consultant with tasks to comply with Moldovan Legislation, as defined in CODE No. 434 of 28-12-2023, Urban Planning and Construction, dated 30-01-2024 and coming in force on January 30, 2025. These tasks relate to providing confirmation that the construction followed the requirements of the design, as amended during the construction phase.

8. The Consultant shall exercise all reasonable care to protect the interests of the Client, where this does not conflict with the duties of the Engineer as defined in the Civil Works Contract, to ensure the timely supervision and control of the Works and to ensure that the works are constructed in accordance with the civil Works Contract in orderly manner, by respecting all relevant Health, Safety and Environmental requirements.

The detailed scope of services is as following:

Task 1: Support to the Client

The Consultant (Engineer) shall carry out (but is not limited to) the following tasks.

9. The Consultant shall support the Client with the following tasks:
    - administration of the civil works contract including start-up and close out procedures;
    - supervision of the works and monitoring of progress;
    - preparation of mandatory reporting. Ensure that all reports required by the Employer / EIB for implementation of the contract are submitted on schedule;
    - approval and implementation of the Contractor's Environmental & Social Management Plan (ESMP);
    - Coordinate with the Client that all certified payments are made on time, by ensuring appropriate control and record systems are in place, in compliance with financier's and the country reporting requirements; and,
    - Prepare a time schedule for progress meetings with the various parties; attend meetings together with the Client to support the investment programme as a whole, seek response to reports, and discuss contract issues on a regular basis with the Client and other key people; prepare and circulate minutes of the meetings, including follow-up actions required to ensure progress.

10. The Consultant shall note that NRA is under obligation to seek Bank's concurrence before agreeing to or implementing any modification or waiver of the terms and conditions of the Works Contract including granting an extension of the stipulated time for performance.

11. The Consultant shall note that the Accepted Contract Amount includes a Provisional Sum for Contingencies intended to cover any variations and price adjustment, where applicable.

12. The Consultant shall seek prior written approval or agreement of the Employer for the following:

    (i) certifying any payment of the Contractor's Advance Payment submissions;
    (ii) agreeing or instructing any changes in the project design.
    (iii) instructing any Contract Variation Order, except in an emergency as instructed by the Engineer in accordance with conditions of the Works Contract;
    (iv) in the event of additional works, the Engineer shall report to the Employer in advance of instructing on the alternative approaches anticipated under conditions of the Works Contract, and on the relative merits of tendering vis-a-vis issuing a variation for such additional works;
    (v) agreeing / approval of Price Adjustment Indices and base values;
    (vi) approving any extension of the Time for Completion;
    (vii) Authorise any request by the Contractor to work outside agreed time windows (e.g. at night or on locally recognised holidays) to expedite progress so as to comply with the Completion Date for the Works or any Section.
    (viii) approving any claim for any additional costs including any cost associated with an extension of Time for Completion;
    (ix) suspending the Works in accordance with conditions of the Works Contract.

Any response by the Engineer which requires Client's approval, except as otherwise expressly specified, shall be notified in writing to the Contractor within 42 days of receipt (21 days for the Engineer, 11 days for the Employer, and 10 days for the Engineer to consider Employer's

comments), or as may be agreed by both the Engineer and the Contractor.

In case any delay in Works will be caused by slow response / initiative / determination or any other actions required and /or expected of the Engineer, the Engineer will have to then extend their services for the respective period without extra payment, unless the delay was outside his reasonable control and cannot be envisaged by the professional consultant experienced in the Services.

The Consultant will have the following obligations:

1. Carry out all tasks required of the "Engineer" as per FIDIC and PCC requirements.
2. Advise the Client on compliance by the Contractor with respect to sub-contracting (if the case), as specified in the Works Contract.
3. Upon receipt of the Contractor's initial Programme of Works, and within the time stipulated in the Contract, notify the contractor, with a copy to the Client, with a "No-Objection", or the extent to which the Programme does not comply with the Contract.
4. Verify that the progress of the Works is in compliance with the Programme Schedule not objected under the Contract on behalf of the Client. Notify the Client as far as possible in advance of any possible failure to attain the Work Programme by the applicable date or non-compliance with the Programme.
5. If for any cause other than those listed in the Contract, the rate of progress of the Works or any Section is at any time, in the Consultant's opinion, too slow to ensure the completion of the Works or any Section by the Completion Date, instruct the Contractor in accordance with the Contract in writing with a copy to the Client.
6. Receive from the Contractor due copies of monthly Progress Reports, in accordance with the Contract, checking the same to ensure that they cover all relevant aspects of the Works and highlights actual or potential departures from the Programme or Payment Schedules and stating the proposed or necessary measures to be taken by the Contractors to overcome such departures; commenting on and supplementing as necessary such Progress Reports before forwarding them to the Client, and advising them of any necessary measures to be taken to achieve completion of each Section within the applicable Time for Completion.
7. Convene formal monthly meetings ("Contract Team Meetings") with all relevant parties. These meetings must have a formal agenda and minutes and include a review of project implementation v's planned implementation, project risks, claims, variations, payments and safety issues.
8. Check the provision of all necessary insurance, performance securities and warranties and other relevant contract documentation.

Task 2: Tasks Prior to Start of Road Construction Works

The Consultant (Engineer) shall carry out (but is not limited to) the following tasks.

(a) Within two weeks from the date of the Contract Agreement of the Works Contract, the Engineer shall organise a meeting with the Employer's and Contractor's Representatives and make a presentation regarding the main Contract provisions highlighting key responsibilities of both Parties and of the Engineer (not only technical but also contract administration matters shall be properly covered so that they are understood by all involved), establishing modus operandi and communication system and clarify the expectations regarding Contract's execution, including early warning systems, in case any issues arise. The focus shall be made on collaboration between the parties and amicable settlement of issues.

(b) Issue the Notice to Commence works when all pre-start conditions are met by the parties.

(c) advise the Employer regarding validity and subsequent approval of the Contractor's insurance policies and guarantees;
(d) review and approve, when satisfactory, the Contractor's Quality Assurance / Management Plan (QAP / QMP);
(e) facilitate and attend any meeting between Contractor / Employer and the owners of facilities (water, telephone, electricity, gas) sharing the road right-of-way; in particular, give advice on proposed modifications by the owners of facilities;
(f) review and approve, when satisfactory, the Contractor's Environmental and Social Management Plan;
(g) review and approve, when satisfactory, the Contractor's Health and Safety Plan:
(h) Risk Management: In order to identify risks during construction, the Consultant shall prepare a comprehensive risk assessment matrix and analysis, including;

- Identification of risks to the project. This must comprise procedural risks, environmental and social risks, technical and quality risks, risk of cost overrun, risk of delays, risk to third parties, etc.
- Assess the likelihood of these risks and the potential consequences
- Identify possible mitigation measures and
- Proactively and continuously seek to manage and reduce/eliminate hazards/risks.

The Risk matrix / analysis shall be discussed at all monthly meetings and included and updated in the Engineer’s monthly reports.
(i) ensure traffic operational safety by reviewing and approval of Contractor’s initial traffic management plans;
(j) check correctness of setting out, co-ordinates and levels of all survey reference markers and require the Contractor to make an independent check;
(k) review and approve construction materials sources proposed by the contractor in compliance with the project’s E&S requirements;
(l) ensure that the Contractor carries out a comprehensive level and condition survey of the road pavement and associated works;
(m) verify estimated quantities in the Bills of Quantities and promptly advise the Employer of any prospective Time and Cost effects and make appropriate recommendations;
(n) review the detailed design and other civil works contract documents before starting of road construction works and commenting on any issues, mistakes, or improvements (technical design, traffic management during construction, legal, contractual, administrative, coordination or otherwise) that, in the opinion of the Consultant, needs to be addressed to secure a successful completion of the civil works contract ensure that where required the designs are revised based on the above comments and decision of the Employer;
(o) ensure that after consultation with Employer that the agreed Road Safety Audit Report requirements are incorporated into the Contract Construction drawings and approved for construction.
(p) when the construction drawings and drawings are revised - stamp, sign and issue the Verified Construction Drawings to the Contractor as 'Approved for Construction.' Should the revision(s) lead to amendment to the works contract, notify the Employer and Contractor of the need to add such amendment and complete the same as per both the relevant provisions of the works contract and the relevant sub-task under Task 3; Site Management;
(q) review the tests list in the civil works contract specification to ensure that it matches the needs considering that supplemental testing can be done using commercial laboratories;
(r) establish a grievance register and redress mechanism (GRM), to ensure potential complainants have access to channels of complaints to file complaints or suggestions related to the construction works (e.g., phone number, e-mail), as coordinated and supervised by the NRA, and the Consultant. Grievances received and subsequent actions shall be reported at monthly meetings and included into the Monthly Progress Report.

The following are some statutory and Employer requirements the Consultant must carry out:

i. The Consultant shall prepare and maintain a schedule of all necessary statutory licences, permits and approvals necessary for the performance of the Works (the Schedule should identify the dates for submissions and approvals, and the person or persons responsible for making application for such licences, permits and approvals either on their own account or on behalf of the Client or the Contractor(s)). Check that such applications are made on time and assist in negotiations with other parties, as necessary from time to time;

ii. Coordinate with and assist the Client to ensure that all permits required are obtained on time;

iii. Ensure relevant government's policy commitments to gender equality are addressed in the Contract;

iv. Regularly monitor validity of Contractor's insurance policies and guarantees and timely advice the Employer on their expiry dates, necessity to request the extensions of the validity and where necessary change the amount of the insurance policies and guarantees;

v. provision and administration of the Project Management Information System (PMIS) for management of project correspondence and documents in accordance with the approved PMIS plan and procedures, and timely (until end of every week) updates of the records and reports thereof;

   a. Comment / No-Objection of Contractor's work plan / schedule;
   b. approval of Contractor's site installation;
   c. approval of Contractor's equipment;
   d. approval of proposed subcontractors, subject to the subcontractor demonstrating satisfactory qualifications and experience for the part of the works for which the subcontractor is proposed, with the prior agreement of the Employer required for subcontracts exceeding EURO 100,000.00;
   e. approval of Contractor's proposal for site-specific traffic management and safety at work sites for his equipment;
   f. approval of the procedures to ensure compliance with the Contractor's Environmental and Social Management Plan;
   g. approval of the Contractor's Health and Safety Plan (procedures);
   h. certification of measured quantities of Works executed by the Contractor in accordance with the Works Contract;
   i. approval of corrections/modifications of geometric survey, if required;
   j. approval of procedures for construction of drainage works;
   k. approval of proposed sources of materials;
   l. approval of construction techniques for structures;
   m. approval of setting-out of the works;
   n. approval of the Contractor's documents and information management system;

Task 3: Supervision Tasks during Construction include but not limited to:

Quality Control

The Consultant (Engineer) shall carry out (but is not limited to) the following tasks.

(a) Receive from the Contractor the full particularised version of their Quality Management Plan (QAP) in English and local language, review and comment upon the same and approve when considered appropriate for the project.

(b) Check on an ongoing basis compliance of the Contractor with the Contractor's Quality Management Plan (QMP) for all aspects of the Project to ensure the Contractor is implementing works in accordance with the approved quality procedures.
(c) Carry out oversight inspection of the work being executed by the Contractor to provide assurance as to the quality and standards of the materials and workmanship, and compliance with the specifications and drawings as included in the contracts, the Approved Design, the Detailed Drawings, the Method Statements, the Quality Assurance Plan and any agreed amendment thereto.
(d) Verify that independent testing of the materials or plant to be supplied under the works contract as required by the contract has been or is to be carried out in accordance with such requirements at the expense of the Contractor.
(e) Agree with the Contractor's procedures and times for inspecting, witnessing or testing any materials or plant as provided in the QMP or the Contract.
(f) Agree practical procedures with the Contractor for giving notice for any examination by the Engineer, which may be required before the Contractor can cover up or put out of view any part of the Works. In accordance with such procedures, and the approved Quality Management Plan, examine where appropriate and check any part of the Works which is about to be covered or put out of view; notify and advise the Client if any material defects are discovered and monitor the remedying of same.
(g) Afford full opportunity for the Client to ask for and to be present when examining and measuring any part of the Works which is about to be covered up or put out of view, and examining foundations before any part of the Works is placed thereon. Give reasonable prior notice to the Client whenever such part of the works or foundations is ready for such examination.
(h) Carry out, when requested by the Client, such other inspections, supervision of testing on-site or procure the carrying out by the Contractor of such tests and supervise the same and carry out such other acceptance procedures or arrangements with the relevant authorities.
(i) Attend factory inspections, all installation work at the sites and commissioning/testing of Project components where required.

Site Management

The Consultant (Engineer) shall carry out (but is not limited to) the following tasks.

(a) Issue of Notice to Commencement of the Works, in accordance with the terms of the contract GCC and PCC once parties have confirmed (in writing) their acknowledgement of compliance with the Contract conditions.
(b) Review and comment on the Contractor's Initial Works program (and subsequent updates) - refer GCC 8.3 for details, and issue either a Notice of non-compliance or in the case of compliance a "No-Objection" to the program with the specified time frames.
(c) Perform daily supervision of the works, checking and approving materials, utilities, infrastructures, equipment, availability of quality certificates, technical competence and workmanship to ensure that the civil works contract is executed in accordance with the civil works contract documents and complies with specifications and drawings.
(d) Chair site meetings and ensure that any problems are settled in a timely manner in order to avoid any delay or extra expenditure (having regard, however, to the terms of the Contract and the limitations on the authority of the Engineer referred to under this ToR).
(e) Maintain full and proper records of all meetings and discussions attended or conducted by the Engineer and make the same available for inspection by the Client forthwith on request.
(f) Advise the Client on the general organization of the Contractor's resources at the Site, including management and programming systems, manpower, plant and equipment.

(g) Monitor and check the day-to-day quality control and quantity measurements of the works carried out under the civil works contract, participating in marking works carried out on site, ensuring documentation of works performed and to be performed based on technological sequence (covered works certificates, intermediate certificates, etc.) and implementation of laboratory testing required, testing protocols compliance and approving their reliability; witness and approve regular tests of materials and of completed works, and order additional tests if required;

(h) Monitor site safety including Traffic flow for safety, ensure appropriate PPE is provided by Contractor and worn by site workers, ensure Contractor provides access to medical care, maintain a register / record of all accidents and impacts (both road and workers) and include as topic in monthly meetings and report such in the Engineer's Monthly report.

(i) Keep a site logbook throughout the construction period where daily records of work quantities and locations, tests and other activities to serve as a basis for monthly reporting and necessarily contains the following information:

- work day start and end.
- Contractor's capability to execute works (availability of required equipment and labor force, technical condition, safety provision for works execution).
- materials and structures brought to the construction site during the day (name, quantity, quality certificate or laboratory testing results)
- works accomplished by the contractor during the day, i.e. Type, location, quantity, and resources engaged, etc. (appropriate documents to be attached)
- deviations from the design documents, appropriate measures undertaken
- emergencies, accidents, not planned suspension of works (indicating the reasons);
- grievances received, referred and addressed from both communities and workers;
- violations of code of conduct;
- incidents are recorded and promptly reported to Employer

(j) supervising the civil works Contracts in all matters concerning safety of the road works (including the erection of temporary signs, guardrails, lighting and availability of other safety means at road works), proper working conditions of road workers, and proper relationship between the Contractor and the road workers with the local population and, if required, to inform the Employer to take appropriate measures.

(k) control materials incorporated into the works and order the removal of improper or substandard work, including examining and attending the testing of any work that is about to be covered or put out of view before permanent work is placed thereon;

(l) Maintain a register of Contract Variation orders and their status and include such in the Engineer's Monthly report and discuss at Monthly meetings.

(m) Maintain a register of Contractual Claims and Notices of Claim and include as topic at Monthly meetings and report such in Engineer's Monthly report.

(n) If design changes are needed, review the contractor's modifications and recommend them for the Employer's approval, with input from the original designer and prepare the necessary contract documents in a timely manner, to be signed by both the Employer and the Contractor, as required to enable the approval of Variation Orders by all parties.

(o) Prepare monthly comparison of actual progress against progress as scheduled; and ensure contractor revises the work schedule where necessary;

(p) Ensure the Contractor submits for review on a monthly basis a Contractor's Monthly Statement (IPS) and issue Interim Payment Certificates when IPS complies with the Contractual conditions and ensure that the IPCs provide clear reference about the locations for which the works are claimed.

(q) Ensure timely submission of VOs and IPCs.

(r) Convene and chair site meetings and attend monthly progress meetings with all parties and ensuring minutes are recorded and signed by all parties.

(s) Control and appraise the progress of the works and recommending to the Employer to order suspension of works and to authorize extensions of the period for completion of the works;
(t) The Consultant shall be responsible for the timely review, approval and continuous supervision of Traffic Management Plans prepared by the Contractor.
(u) The Consultant shall monitor the implementation of the Contractor's Traffic Management Plans including temporary signs including adequate speed limits and pre-warnings, markings, road furniture, streetlight, crash barriers, safety equipment and temporary pedestrian facilities to ensure that safety is adequately considered around any work site at any time of day/night;

Payments and Accounts

The Consultant (Engineer) shall carry out (but is not limited to) the following tasks:

(a) Financial management of the civil works contract. Based on (i) Contractor's programme of works and cash-flow projections which should be revised at required time intervals and, (ii) upon his own judgement, the Engineer shall prepare, as part of its monthly reports, monthly disbursement tables showing the status of previous disbursements and a tentative prediction of future disbursements on a monthly basis.

(b) For the purpose of confirmation of the Contractor's applications for zero rate VAT and exemptions from custom duties, fees, taxes and excises for goods and services purchased and/or imported from the proceed of credits and grants, under the Law no.312/2023 dated 26 October 2023 and Government Decision no. 53 dated 24 January 2024, and subsequent modifications, the Engineer shall confirm to the Employer that the goods to be purchased and/ or the services to be provided under the contracts signed between the Contractor and different suppliers, are intended for the implementation of the Works Contract;

(c) Receive from the Contractor, on a monthly basis the monthly Interim Payment Statement (IPS).

(d) Check in accordance with the relevant provisions of the Contract the Contractor's IPS and resolve with the Contractor, where possible, any mistakes and queries which may arise.

(e) Calculate the amount to be certified in respect of the Contractor's IPS pursuant to the Contract. Within the times stipulated in the Contract, and provided the Contractor's IPS meets contractual requirements verify and submit to the Employer a Certified Interim Payment Certificate (IPC) for the amount due for payment to the Contractor.

(f) Certify any additional amounts due to a Contractor in respect of valid claims notified in accordance with the procedure set out in a Contract.

(g) As required by the Contract, no later than fifty-six (56) days after the date of issue of the last Performance Certificate, receive from the Contractor the draft Final Payment Certificates pursuant to the Contract.

(h) Prepare a template for IPCs (in close consultation with the client), along with requirements of supporting documents and supply the same to Contractor;

Delays / Dispute / Claims

The Consultant (Engineer) shall carry out (but is not limited to) the following tasks.

(a) Perform the duties of the Engineer as per Contract GCC Section 3 [The Engineer] and the Particular Conditions of Contract (PCC – where applicable) in relation to any disputes / Claims / Notices of Claims that may arise.
(b) The Engineer shall upon becoming aware of a potential dispute immediately notify the Employer and facilitate subsequent meetings with the parties to attempt to resolve such event prior to escalating to a formal Claim / Notice of Claim.
(c) The Engineer shall immediately notify the Employer of any subsequent Notice of Claim / Claim.
(d) Notify the Client immediately if a Contractor fails to complete any Section within the applicable Completion Date, or appears likely so to fail.
(e) Advise the Client on any difficulties that may arise generally in connection with the execution of the Works.
(f) Upon the request of the Contractor, discuss the delay, the reasons therefore, determine and notify the Contractor of any extension of time and any amendments to any of the Programme Schedules. Where the delay has been caused by any of the causes referred to in the Contract or where an extension of time has been granted, consult with the Contractor on behalf of the Client, and send to the Client for its review, such revisions to the Programme and Payment Schedules which the Contractor considers necessary in consequence of any such delay or extension of time.
(g) Work with the Client and the Contractor to set up the Dispute Adjudication Board, as required under the Contract, and follow up all requisite processes in addressing the Contractor's or Client's claims.
(h) If necessary, prepare a case for the application of Delay damages or a claim against the Performance Guarantee where a Contractor has failed to perform.

Suspension, Termination

The Consultant (Engineer) shall carry out (but is not limited to) the following tasks.

(a) If in the Consultant's opinion, a suspension is required, the Consultant will consult with and seek the approval of the Client. After receiving approval to issue a suspension, the Consultant will follow the procedures and conditions established in the Contract.
(b) Notify the Client immediately if the Contractor is failing to comply with its obligations under the Contract, including environmental, social, health & safety. Discuss with the Client possible remedies, and advise on the rights and obligations of the parties under the Contract.
(c) Where a Contractor's performance is poor in terms of progress or quality (Non-conformities) or safety the Engineer, following discussion with the Employer, shall issue a Notice to Correct – NTC [GCC 15.1] specifying actions that must be taken and providing a reasonable time-frame for such actions to be implemented. The Engineer shall inform the Employer of the subsequent result of the NTC.
(d) Should the Employer Terminate a Contract [GCC 15.2] the Engineer shall assist the Employer with subsequent Termination procedures as per Contract.
(e) If any urgent remedial work is necessary, act in accordance with the Contract, and otherwise advise the Client on carrying out the same by the Contractor or, if impossible to do so, discuss such failure with the Client.
(f) If any dispute or difference is referred to the Dispute Board or subsequent arbitration the Engineer shall assist the Client in respect of such events provided always that the Engineer is not required to act improperly or contrary to his obligations as the Engineer under the Contract.

(g) Advise the Client of the Contractual implications should there be the occurrence of any Exceptional Event [GCC Clause 18].

Completion of Works

The Consultant (Engineer) shall carry out (but is not limited to) the following tasks.

(a) Attend to the works inspections carried out by the State Authorities in accordance with the Applicable Law;
(b) Assist the Employer with the execution of the Taking Over from the Contractor of civil works contract, in particular by preparing lists of deficiencies which need to be corrected;
(c) Organize provisional and temporary technical acceptance of works and submit all supervision documents to the taking-over committee according to the Applicable Law;
(d) The Consultant shall ensure the Contractor carries out an International Roughness Index (IRI) survey after the completion of civil works contract and prior to Taking-Over. The results must comply with technical requirements.
(e) Within the terms and conditions stipulated in the Contract receive a request from the Contractor to issue a Taking-Over Certificate in respect of the Works.
(f) Within 14 days of receipt of such a request, inspect the Works with a representative of the Client.
(g) Provided that the Client has confirmed that they have no objection to the Engineer so doing, issue immediately to the Contractor, with a copy to the said parties, a Taking-Over Certificate stating the date on which the Works were substantially completed in accordance with the Contract.
(h) Taking into account any comments of the said parties, give instruction in writing to the Contractor specifying all the work required to be done by the Contractor before the issuance of a Taking-Over Certificate; notify the Contractor of any defects in the Works affecting Completion that may appear after giving such instructions and before completion of the Works specified therein; provided that the Contractor has completed the Works so specified and remedied any defects so notified to the satisfaction of the Engineer and the Client, issue a Taking-Over Certificate within the period as prescribed in the Contract.
(i) Issue Taking-Over Certificate in accordance with the Conditions of the Works Contract noting that no outstanding construction works shall be left for Defect Notification Period (DNP).
(j) The Engineer shall take this into account before issuing the Take-Over Certificate that it may be acceptable for the project As-Built drawings to be finalized by the Contractor during first month of DNP – but prior to the issue of the Statement at Completion, however prior agreement of the Employer shall be obtained for allowing such delay.
(k) The requirements of the Applicable law on the works acceptance shall be taken into account by the Engineer as the compliance with these procedures is a precondition to the Take-Over certificate and thus advance notice will need to be given to the Employer, so that the required commission can be timely formed.
(l) The Engineer shall prepare a Works Completion Report within 28 days of issuing the Taking Over Certificate. The Works Completion Report shall be comprehensive and must include information relating to (but not limited to) “Before” and “After” traffic volume, vehicle speed, IRI, estimated v/s actual cost, project baseline schedule v/s actual schedule, challenges encountered and measures taken, lessons learned, highlight good practices, areas of improvement, environmentally friendly initiatives, advanced technologies (if used), road safety measures installed, accidents/ incidents reported, etc. The template of the works completion report shall be finalized in close consultation with client and EIB.

(m) The Engineer shall supervise the integration of the Road Safety Audit findings from the Design stage and the Road Safety Audit recommendations performed by the Employer before completion of the Works.

Task 4: Activities during the Defects Notification Period

(a) Engineer will be responsible for monitoring the Contractor's operations and for issuing any required certificates.
(b) For the purpose of carrying out the services, the Engineer, at least once in 4 months, shall carry out site visits to monitor the rectifications on unattended/ uncompleted activities, identifying and preparing reports on defects if any, supervising the remedial works and preparing and issuing the Final Payment Certificate.
(c) Instruct a Contractor to search for defects and the cause thereof and to execute all such work of amendment, reconstruction, and remedying defects, shrinkage or other faults during the Defects Notification Period as prescribed in the Contract.
(d) Monitor generally the Contractor in performing its obligations during the Defects Notification Period. Prepare and issue a Performance Certificate, within the times and using procedures prescribed in the Contract and PCC.
(e) In the event that the Contractor refuses to carry out any rectification work, assist the Client in resolving the situation.
(f) Advice the Client of the value of any completed Section and of any further information as may be necessary for calculating any adjustment in the amount of the Performance Security and, if the case, of any other bonds or securities procured by the Contractor to secure its obligations.
(g) Before the end of the Defect Notification Period (with prior coordination with the Employer), the Engineer shall conduct a detailed defect inspection of the road and structures and prepare a defect report for issue to the Employer and Contractor.
(h) The Engineer shall supervise the integration of the Post-Construction Road Safety Audit recommendations, which will be performed by the Employer before the expiry of the first year of the Defect Notification Period.
(i) Prior to the expiry of the Defect Notification Period the Engineer shall certify (or otherwise) that the defects have been rectified.

Task 5: Environmental and Social Management Plan

The Consultant will have the following obligations:

(a) The Consultant will ensure that all applicable environmental and social requirements of the Bank are being adhered to by the works Contractor. This includes providing oversight of and support, as needed, to Contractor in implementation of the Environmental and Social Management Plan (C-ESMP), environmental and social monitoring plan and preparation of required environmental and social reports to the Bank using the approved EIB's reporting format, and with the EIB's Environmental and Social Sustainability Framework, available at https://www.eib.org/en/publications/eib-environmental-and-social-standards.

Task 6: Archaeological Remains

The Consultant will have the following obligations:

(a) Receive notice from the Contractor in the event of the discovery of any fossils, coins, articles of value or antiquity or other similar remains, dangerous dumpsites, hazardous contamination or munitions within the Site and advise the Client in relation to the steps to be taken in consequence thereof and the time and cost implications of such steps.
(b) Decide any extension of time and any additional payment to which the Contractor is entitled in accordance with the terms of the Contract as a result of discovery of any archaeological remains or dangerous dumpsites.

Task 7: Health and Safety

The Consultant will have the following obligations:

(a) Require the Contractor to prepare and implement a Construction Health and Safety Plan and where necessary, require the Contractor to provide and maintain at their own cost all lights, guards, fencing, warning signs and watching, for the protection of the Works or for the safety and convenience of the public or others.
(b) supervise the Contractor in all matters concerning safety and care of works.
(c) supervision of the implementation of the road safety recommendations under both road users and Contractor's workers' perspectives under the Works Contracts.
(d) The Consultant shall monitor and ensure that during the implementation of the project, all employees, including the Consultant and the Contractor's personnel engaged in the activities related to the implementation of the project, must fully respect prescribed measures for occupational protection and also additional measures related to COVID-19 pandemic, all in accordance with the recommendations of the World Health Organisation, relevant departments of the Company and authorities of the Republic of Moldova.

The Consultant should also take into account both EIB's guidance materials regarding coronavirus pandemic - see https://www.eib.org/en/publications/covid19-guidance-note-to-promoters.

Task 8: Compliance with the Urban Planning and Construction Code

The Consultant will have to retain a Designer's Representative, who will be the representative of the Project Designer, whose details are given in Annex A. The Designer's Representative shall report to the Consultant and is required to attend the Site as required by thie Urban Planning and Construction Code. Designer's Representative will assist the Consultant with the required compliance. The Consultant will have the following obligations under this task, as a minimum:

(a) Participate in the design review and correct any shortcomings and defects prior to the commencement of works;
(b) Participate in the hand-over of the site to point out specific issues identified during the design phase and to confirm the site layout;
(c) Assist the Engineer's staff with the monitoring of works implementation to ensure compliance with the design and the contractor's quality assurance plan;
(d) Review and correct any design shortcomings and defects identified by any party during construction;
(e) Participate in the acceptance of works prior to it being covered by the next stage of construction;
(f) Participate in the monthly progress meetings;
(g) Participate in handover inspections and sign Minutes of such inspections;

(h) Liaise with the Engineer when the Contractor fails to perform and the suspension of works is considered; and
(i) Jointly responsible for the preparation, updating and completion of the different parts of the Technical Construction Book.

The Designer's Representative will submit a monthly Report to the Consultant elaborating on their site presence and the tasks completed.

4 CONSULTANT'S QUALIFICATION, TEAM COMPOSITION, STAFFING INPUT & QUALIFICATION REQUIREMENTS

The Consultant shall employ suitably qualified engineers and other professionals, who shall be competent to carry out their duties in accordance with responsibilities and/or authorities that are specified in these TOR or are necessarily implied from the Works Contract. The Consultant will demonstrate equal opportunities in the mobilization and management of human resources.

In order to determine the capability and experience of consulting firms, the Consultant's organization, administrative capacity and the recent experience which is most relevant for the assignment shall be evaluated at the stage of submission of expressions of interest. The following short listing criteria and weightings are applicable for the evaluation of Consultant's qualifications:

Criteria • Sub criteria	**Weighting**
Company Profile	**10%**
• Core business/structure and years of experience	5%
• Technical, financial and administrative capacity	5%
Company Experience	**90%**
• Experience of consultant in similar assignments	80%
• Experience of consultant in similar locations	10%

In preparing the Staff Mobilization Schedule, the Consultant shall take account of Contractor's work programme and construction activities.

The Consultant shall consider the prospective peaks of the construction activities and ensure the adequacy of staffing levels during such periods and shall be responsible for efficient staffing levels, including its reduction, when the real pace of the construction activities is much lower than work program envisages.

The Consultant shall arrange for an appropriate head office back-stopping support for the Engineer's supervision team including nomination of a suitably qualified and experienced person who shall act as "Engineer"/ Project Director[1] on behalf of Consultant for the project under the authorised delegation of the Consultant.

The "Engineer" / Project Director shall be a Chartered Engineer with demonstrated understanding and experience (>15 years) in management of FIDIC based Contracts.

[1] Provision and payment for services required for the role of Engineer shall be covered by inclusion as an overhead cost in the rates for other paid Consultants positions.

Expertise required

It is expected that the Consultant's team shall comprise of the following experts:

	Key Staff	**Minimum person-months**
	Team Leader / Engineer's Representative (TL/ER)	37,5
	Material Engineer (ME)	30
	Quantity Surveyor (QS)	33
	Bridge Engineer	21
	Non-Key Staff/Technical Support Staff	
	Road Inspector	35
	Bridge Inspector	30
	Land Surveyor	31
	Laboratory Assistant	25
	Environmental Expert	20
	Health and Safety Inspector	12
	Short-term experts (as the need may arise)	**15**

Engineer's Staffing input

The numbers and person-months for all staff shall be included in the technical proposal and the costs in respect of these personnel are to be included in the financial proposal.

The Engineer/ Project Director's position and any other head office support staff is not part of the Key Experts pool and Consultant's costs therefore will be covered by inclusion thereof in the overheads for the project.

The estimated minimum number of person-months required for the assignment is **289.5 person-months.** This includes 121.5 person-months for **Key Staff**.

The Client's estimation of the necessary input for **Non-Key Staff/Technical Support Staff** is 153 person-months and 15 person-months for short-term experts. However, the exact estimation of the input of the non-key specialists remains at the Consultant's discretion.

In any case, the minimum total person-months established for each expert should correspond to the amount required in the ToR.

The indicative inputs and required qualifications for the project teams are presented in the sections below.

All key personnel shall be fluent in English, and knowledge of the local language will be considered an asset, and be fully computer literate, word processing, spreadsheet, etc.

Consultants are encouraged to associate with local firms and include in the team local Technical Support Staff and/or Key Experts.

Key Experts:

Curriculum Vitae of the Key Staff proposed shall be signed by each Key Expert and submitted with the Consultant's Technical Proposal, in sufficient detail to clearly demonstrate that the credentials described below have been met. The Key Staff should possess University Degrees in

Highway or Civil Engineering, or an equivalent technical qualification related to their respective proposed specialty in this project.

- Provided that the basic minimum staff requirements are met, the Consultant is free to propose the supervision structure that is deemed by the Consultant to optimally meet the project requirements.
- The Team Leader / Engineer's Representative shall be present during the working season and shall be available on site until the Works are complete and defects remedied.

In addition to the minimal required team of Key Staff mentioned above, the Consultant shall provide the necessary field teams of support staff.

The Engineer: Any individual / person nominated by the Consultant to fulfill the role of Engineer (for issue of Determinations etc.) must meet the requirements of the Contract.

The minimum qualifications requirements for the requested staff are envisaged below:

(a) Team Leader / Engineer's Representative (TL/ER) – Key Expert no.1

Credentials:

a) General Qualifications and Experience:

University Degrees in Highway or Civil Engineering, or an equivalent technical qualification related to their respective proposed specialty in this project.
The candidate should have at least fifteen (15) years of experience in design, construction and/or supervision of road works.

b) Specific experience and expertise related to the task:

The candidate is expected to have a minimum of ten (10) years of experience of supervision of road rehabilitation or/and construction works.

The candidate is expected to have previous experience with bulk earthworks (cut to fill), granular pavement and asphalt pavement construction.

The candidate is expected to have previous experience in the role of Engineer's Representative as follows:

a) Working experience in minimum 2 projects of similar size and complexity carried out under: the FIDIC 1999 General Conditions of Contract for Construction (Red Book) or under FIDIC 2017 General Conditions of Contract for Construction (Red Book) or under the FIDIC MDB 2010 General Conditions of Contract for Construction (Red Book), with minimum of 2 years' involvement in each such projects;

b) Working experience in at least 1 project of similar size and complexity carried out under the FIDIC 2017 General Conditions of Contract for Construction (Red Book) with minimum of 2 years' involvement in each such projects, will be considered an advantage.

c) Specific Experience in the European region and/or former Soviet Union countries:

The Candidate shall demonstrate previous work experience in the European Region and / or former Soviet Union countries.

d) Knowledge of English language:

A sound working knowledge of the English language is required.

Job description:

The Team Leader / Engineer's Representative shall:

- carry out the duties of the Engineer's Representative, as described in the civil Works Contract documents;
- manage the Consultant's team;
- elaborate the programme of activities of his team;
- take care of his team's logistics;
- check that the services are carried out in accordance with the Terms of Reference;
- verify and certify the interim and final statements of the Contractor under the civil works contract;
- identify any risks of Contractor's claims and report to the Employer on such risks as promptly as possible;
- identify risks for delays in the works and report to the Employer on such risks as promptly as possible;
- produce the periodic reports;
- produce the final reports;
- produce any other reports as required by the Employer;
- inspect the works during the Defects Notification Period and issue the related reports;
- advise the Client on any issue likely to affect the financial resources, e.g., variation orders, or the scope of work;
- delegate duties as appropriate to other Key Personnel and Technical Support staff;
- be the responsible person on behalf of the Engineer to assure Contractor's implementation of, and compliance with, the Health and Safety requirements of the contract. As such, delegate specific responsibilities to the appropriate Key Personnel to assure Contractor's compliance with the Occupational Health and Safety (OH&S) Plan which is a part of the Construction Environmental and Social Management Plan (CESMP);
- when applicable, be the person to record and send notices on implementation of penalties against the Contractor in accordance with the Works Contract;
- any other duties that may be required for successful performance of the role of the Engineer for Works Contract and for timely and successful completion of Works.

(b) Materials Engineer (ME) – Key Expert no.2

Credentials:

a) General Qualifications and Experience:

University Degrees in Highway or Civil Engineering, or an equivalent technical qualification related to their respective proposed specialty in this project.
The Candidate must have at least twelve (12) years of experience in quality management of civil works and materials testing.

b) Specific experience and expertise related to the task:

The candidate is expected to have a minimum of eight (8) years of experience in roads, bridges, motorways contracts as a Materials Engineer, including asphalt paving works.

The candidate is expected to have previous experience working with asphalt concrete material and the asphalt mix design process, demonstrated experience working on recycled pavement is an advantage.

The candidate is expected to have previous experience in the position of Materials Engineer on at least two similar projects, with minimum of 1 year' involvement in each such project.

c) Specific Experience in the European region and/or former Soviet Union countries:

The Candidate shall demonstrate previous work experience in the European Region and / or former Soviet Union countries.

d) Knowledge of English language:

A sound working knowledge of the English language is required.

Job Description:
The Materials Engineer shall:
- co-ordinate the supporting staff engaged for quality control (laboratory technicians, site inspectors), in order to ensure that all related procedures are implemented by the Engineer's staff;
- prepare a database of procedures regarding the implementation of quality assurance plans and check that procedures are implemented;
- elaborate a procedure to be applied for the delivery, checking and approval of materials to be incorporated in the permanent works;
- regularly inspect the quality of materials and the works;
- discuss any remedy with the Contractor;
- report to the TL/ ER as necessary;
- audit Contractor's quality assurance systems.

(c) Quantity Surveyor (QS) – Key Expert no.3

Credentials:

a) General Qualifications and Experience:

University Degree in Highway or Civil Engineering, or an equivalent technical qualification related to their respective proposed specialty in this project.
The Candidate should have at least ten (10) years of experience in road, design, construction and/or supervision.

b) Specific experience and expertise related to the task:

The candidate is expected to have a minimum of eight (8) years in similar positions in the construction or /and supervision of road works.
The candidate is expected to have previous experience working as a Quantity Surveyor in at least two (2) projects of similar size and complexity under FIDIC Conditions of Contract is required, with minimum of 1 year involvement in each such projects.

The candidate is expected to have previous experience in the preparation and analysis of Contract variations in accordance with FIDIC Conditions of Contract.

c) Specific Experience in the European region and/or former Soviet Union countries:

The Candidate shall demonstrate previous work experience in the European Region and / or former Soviet Union countries.

d) Knowledge of English language:

A sound working knowledge of the English language is required.

Job Description:

The Quantity Surveyor shall:
- co-ordinate the activities for the daily measurements of the approved works;
- verify that quantities submitted for payment are correct;
- keep records of all quantities approved for payment;
- prepare, in close co-ordination with the Team Leader/Engineer's Representative all documentation regarding the Monthly Statements and the Interim Payment Certificates, and Supporting Documentation;
- the Quantity Surveyor shall verify, in co-ordination with the Team Leader/Engineer's Representative and the Materials Engineer, that the payable quantities refer only to works which are Quality Assured through the Quality Control procedures;
- draw-up and up-date the necessary records and documents for the preparation of all Contract Administration activities, such as the Variation Orders.
- supervise the execution of works and check the finished works before taking-over;
- promptly inform Team Leader/Engineer's Representative of potential Variation Orders and unexpected increases in costs;
- provide daily co-ordination of supporting staff assigned under his direct control, ensuring constant supervision and quality control of the works in progress;
- follow-up the works in order to advise the Team Leader/Engineer's Representative about any event which might create disruption of the Work.

(d) Bridge Engineer (BrE) – Key Expert no.4

Credentials:

a) General Qualifications and Experience:

University Degree in Highway or Civil Engineering, or an equivalent technical qualification related to their respective proposed specialty in this project.
The Candidate should have at least fifteen (15) years of experience in bridge design, construction and/or supervision.

b) Specific experience and expertise related to the task:

The Candidate is expected to have a minimum of (10) years in design and supervision of highway bridge works in major projects.
Experience as Bridge Engineer on at least two projects of a similar scope and nature is required.

c) Specific Experience in the European region and/or former Soviet Union countries:

The Candidate shall demonstrate previous work experience in the European Region and/or former Soviet Union countries.

d) Knowledge of English language:

A sound working knowledge of the English language is required.

Job Description:

The Bridge Engineer shall:

- *Coordinate with the Contractor the pre-construction site inspections and design reviews of all bridges in the contract and recommend measures for improvement /correction if found necessary;*
- *Review and comment on the Contractor's work programme, method statements, quality assurance, quality control testing and health and safety procedures for all bridge and associated works;*
- *Inspect the quality of the work and supervise the Contractor's certificates of materials, methodologies and works being in conformity with the requirements of the Contract;*
- *Supervise integrity test of structural elements, or load tests on bridges as required;*
- *Review records of works performance, submit reports to the TL/ER and report upon issues that may have an adverse effect the Work.*

Nominated Sub-Consultants: Designer's Representative per Moldovan Construction Law

The Designer's Representative will be representative of the Project's Designer, whose details are given in Annex A.

To avoid potential conflict of interests the project designer shall not be entitled to accept appointment from the Contractor in respect of Contractor's obligations to prepare construction drawings for the project.

A total of 24 person-months is allocated for Designer's services. The remuneration rate for the Services of the Designer's Representative is fixed at EUR 4,000 (four thousand) per month, inclusive of all costs.[2] Payments for these services will be based on the submission of time sheets for the actual time used and monthly reports showing the completed and ongoing activities during the respective month.

The resulting amount of EUR 96,000.00 shall be included as a Provisional Sum in Form FIN-3. Payment requests will form part of the Consultant's monthly invoices.

Non-Key Staff/Technical Support Staff

The time, number and type of non-key (and short-term) specialists to be mobilised will be agreed between the Client and the Consultant as the need arises. For estimating purposes, a number of

[2] Such costs shall not exceed the ceiling established in the National Construction Norms (NCM) CP L.01.01–2012, "Instructions on drafting bills for the construction-mounting works through the resources method."
The document may be accessed following the link below:
https://ednc.gov.md/cp-l-01-01-2012/

individual expert visits and a global number of person-months are to be shown in the proposal and the Consultant should also enter a person-month rate (inclusive of all expenses and costs, which shall not be reimbursed separately).

Short-term specialists/experts

For short-term experts a minimum of 15 person-months is estimated. Short-term experts may only be mobilised with prior written consent of Client and each short-term expert must provide mission reports prior to their demobilisation.

Short-term experts may be required in the following areas:

- highway engineer
- pavement engineer
- geology and geotechnical expertise;
- social expertise;
- specific equipment expertise;
- hydrology;
- hydraulics;
- claim expertise;
- legal adviser;
- financial experts;
- road safety auditor;
- road safety engineer;
- health and safety;
- etc.

Specific *Credentials* and *Job Description* for the Short-Term Social Expert (SE)

Credentials:

a) General Qualifications and Experience:

The Candidate should be a qualified professional with University degree in Social Science or equivalent (anthropology, sociology, political economy, social development, etc.).

The Candidate is expected to have at least six (6) years of professional working experience.

b) Specific experience and expertise related to the task:

The Candidate is expected to have at least four (4) years of experience in conducting social assessment of IFI-funded projects and monitoring the implementation of CESMPs for road infrastructure projects, social assessments, social surveys, public consultations and land acquisition processes.

c) Specific Experience in the European region and/or former Soviet Union countries:

The Candidate shall demonstrate previous work experience in the European Region and / or former Soviet Union countries.

d) Knowledge of English language:

A sound working knowledge of the English language is required.

Job Description:

The Social Expert shall:

- *Supervise the implementation of the mitigation measures by the Contractors engaged by the Project; Ensure that the contractors are made aware of the mitigation measures as specified in the ESMP and included in the contracts;*
- *Set-up monitoring system on social issues and measures;*
- *Carry out periodic site visits in order to oversee the compliance of the activities with the social risk management requirements laid down in the contract documents, and report findings and suggest and monitor corrective measures in case of non-compliance;*
- *Serve as a main interlocutor between the project-affected parties and Project, on social impact issues; coordinate with key stakeholders in dealing and resolving social issues; and*
- *Organize and manage periodic sessions for public consultations on social issues related to the Project.*

Specific *Credentials* and *Job Description* for the Short-Term Claims/ Contract Specialist.

Claims / Contract Specialist (CS)

The Claims Specialist will be required to assist the Engineer in the management, evaluation and determination of Contractor's and / or Employer's Claims.

a) Qualification:

The candidate should have University degree in engineering or law.

b) General experience:

The Candidate is expected to have at least ten (10) years of experience working as a Claims / Contract specialist in the civil engineering environment.

c) Specific experience:

The Candidate is expected to have at least eight (8) years of experience in analysing Claims in accordance with the FIDIC Conditions of Contract.

The Candidate is expected to be experienced with Dispute Board Procedures and the preparation of submissions and responses for Dispute Board Determinations.

d) Desirable Experience

Previous experience in the preparation of submissions for arbitration proceeding will be considered an asset.

e) Experience in Region and Language:

Demonstrated previous work experience in the European Region and / or former Soviet Union countries will be evaluated as being an asset and good English language skills are required.

Job Description

The Claims / Contract Specialist shall:

a) Set-up a Claims management register with sufficient detail to record, dates of submissions, types of Submissions, description of the Claim, actions required, dates for responses (as per GCC 20.1& 3.5) and outcomes;
b) Assist Engineer in managing Claims Register;
c) Review Contractor's Claims and prepare assessments in sufficient detail for the Engineer to make a determination, as per GCC;
d) Review submissions of Notices of Claims from Contractor and ensure proper monitoring of interim claims is carried out on a monthly basis – as per GCC;
e) Assist Engineer in carrying out consultations on Claims with Contractor / Employer;
f) Ensuring documented records / minutes are kept of consultations;
g) Provide advice to the Engineer / Employer on best management of Claims;
h) Assist Engineer / employer in preparing submissions to Dispute Board as required;
i) Assist Engineer / employer in preparing submissions for arbitration as required.

Specific *Credentials* and *Job Description* for the Project Scheduling/Control Expert

Project Planning/Monitoring/Reporting Expert (PMRE)
Credentials:

a) Qualification:

University degree in civil engineering.

b) General experience:

The Candidate is expected to have at least seven (7) years of experience in construction and/or supervision.

c) Specific experience:

The Candidate is expected to have managed project controls on at least one (1) project with a value of over EUR20 million and containing multiple project components.
The candidate is expected to have the ability to prepare project progress and other interim technical reports in respect of the Works Programme, changes, modifications of design solutions, etc. The Client during the negotiation process with the successful firm, reserves the right to request sample of such reports prepared by the expert in the past.
The candidate is expected to be proficient in Microsoft Office Suite, MS Project, and Oracle Primavera Scheduling (or similar software) and Contract management tools / program and project management software.

d) Experience in Region and Language:

Demonstrated previous work experience in the European Region and / or former Soviet Union countries will be evaluated as being an asset and good English language skills are required.

Job Description:
The Project Scheduling/Control Expert shall:

- Monitor the timely submission by the Contractor of the Programme;
- Review and comment the Contractor's proposed initial Programme and any update and revision thereof. Provide opinion on appropriateness of the proposed schedule of activities. Comment on critical (major) activities that are controlling factors in the completion of the Works;
- Review, comment and provide feedback to the narrative Programme reports and suggest requesting the needed clarification, adjustment and updates thereof;
- Provide opinion on the Contractor's proposed production rate by each pay item quantities and extent such rates are appropriate to support the proposed Programme;
- Recommend approval/acceptance or revision of the Contractor's submitted Programme/ schedule and provide reasons in case of revision is recommended;
- Perform time impact analysis in case of significant revision of the Programme or review such analysis provided by the Contractor;

- Examine any Contractor's claim alleging delays/disruptions and/or requesting extension of time and comment on the relevance of the invoked events. Check and comment on the time impact of the alleged delays;
- Develop draft response(s) to the Contractor's claims for extension of time.

***Credentials* and *Job Description* for other short-term Experts:**

Proposed candidates should be graduated engineers or other qualified professionals, having at least ten (10) years of experience in their area of expertise. They shall also have a university degree in their area of expertise.
Experience in countries with similar climatic and geographic conditions to those of Moldova will be considered an asset.
They should demonstrate that they have participated in at least two (2) projects where they have held similar functions.
The expertise will be supplied at the request of the Engineer with the prior written approval of the Employer providing the terms of reference for the assignment.
The Employer's agreement to a proposed expert shall be obtained prior to his coming/her coming in Moldova based on a curriculum vitae supplied by the Engineer.
They will be mobilized according to the needs, which may arise since the pre-construction stage during the construction works and until the end of the Defects Notification Period.
Short-term experts shall produce detailed reports at the end of their stay in Moldova, stating the results of their expertise on site.

Non-Key Experts' Required Qualifications

The CVs for Non-Key and Short-term Experts are not reviewed prior to the signature of the Contract and should not be included in technical proposals.

The Consultant shall mobilize these experts as required according to the profiles identified in the Organization & Methodology and these Terms of Reference. They must indicate clearly which profile they have so it is clear which fee rate in the budget breakdown will apply. All experts must be independent and free from conflicts of interest in the responsibilities assigned to them.

Specific *Credentials* and *Job Description* for Environmental Expert (EE)

Credentials:

a) General Qualifications and Experience:

The Candidate should be a qualified professional with University degree in Environmental Science or equivalent (degree in Ecology, Biology, Chemistry, Natural Resources).

The Candidate is expected to have at least six (6) years of professional working experience.

b) Specific experience and expertise related to the task:

The Candidate is expected to have at least four (4) years of experience in conducting environmental assessment of IFI funded projects and monitoring the implementation of ESMPs for road infrastructure projects.

c) Specific Experience in the European region and/or former Soviet Union countries:

The Candidate shall demonstrate previous work experience in the European Region and / or former Soviet Union countries.

d) Knowledge of English language:

A sound working knowledge of the English language is required.

Job Description:

The Environmental Expert shall:

- *Supervise the implementation of the mitigation and environmental protection measures provided in EMP by the Contractors engaged by the Project; Ensure that the contractor is made aware of the mitigation measures as specified in the EMP and included in the contracts;*
- *Set-up monitoring system on environmental issues and measures,*
- *Monitoring and confirming that the contractors have all the required national and local permits to perform the road works according to their contracts before starting the construction works;*
- *Monitor the environmental permits status, including a periodic status update as a component of the reporting requirements;*
- *Serve as a main interlocutor between the project-affected parties and Project, on environmental impact issues; coordinate with key stakeholders in dealing and resolving environmental issues, and*
- *Organize and manage periodic sessions for public consultations on environmental issues related to the Project.*

***Credentials* and *Job Description* for other non-key Experts:**

Proposed candidates should be graduated engineers or other qualified professionals, having at least ten (10) years of experience in their area of expertise. They shall also have a university degree in their area of expertise.
Experience in countries with similar climatic and geographic conditions to those of Moldova will be considered an asset.
They should demonstrate that they have participated in at least two (2) projects where they have held similar functions.

Site Supervisors have been accredited and a list of qualified Site Supervisors is available on the website of the Ministry of Infrastructure and Rural Development (MIRD). The Consultant is free to contact anybody from this list. The proposed staff shall be accredited.

The expertise will be supplied at the request of the Engineer with the prior written approval of the Employer providing the terms of reference for the assignment.
The Employer's agreement to a proposed expert shall be obtained prior to his/her coming in Moldova based on a curriculum vitae supplied by the Engineer.
They will be mobilized according to the needs, which may arise since the pre-construction stage during the construction works and until the end of the Defects Notification Period.
Short-term experts shall produce detailed reports at the end of their stay in Moldova, stating the results of their expertise on site.

5 REPORTING REQUIREMENTS AND TIME SCHEDULE FOR DELIVERABLES

DELIVERABLES

The Consultant will provide the Client with information, designs, data and documentation through submission of periodic reports prepared during the course of its service or specific reports prepared at the request of the Client in relation to the design, construction, completion, testing or commissioning of the Works.

For practical reasons it is proposed to allow a delay of ten working days in submission of the reports in local language due to the translation efforts.

If the Consultant does not comply with his reporting obligations as listed in the Terms of Reference, an amount may be withheld from his periodic invoice in accordance with Sub-Clause 26.1 of the Special Conditions of the Contract.

All reports issued by the Consultant shall be reviewed and approved by the Client. A period of two weeks shall be allowed for the review and approval. In addition, the Consultant will:
- Document the work through Working Papers, Issues Papers and Memoranda in Local and/or English, as appropriate; and
- Prepare and maintain full and proper records of all meetings and discussions.

During the period of the services, the Engineer will provide the Employer with the following reports (1 copy in Romanian and 1 copy in English and an electronic copy):

i. *Inception Report/ Mobilization Report*: within the two weeks after the contract effective date;
ii. *Work Programme report*: within 21 days of receipt of the Contractor's Work Programme;
iii. *Weekly report*: on each Friday of each calendar week;
iv. *Monthly Progress Reports*, within 10 days of the end of each calendar month;
v. *Variations Reports (if required)*: no later than 14 days from the moment when the Engineer becomes aware that a Contract Variation order may be required;. .
vi. *Claims Reports*: a) for preliminary assessment of the validity of the Contractor's potential Claim no later than 7 days from the date of receipt of the respective Notice of Claim; b) for a detailed analysis of the validity of the Claim no later than 21 days from the date of receipt of such Claim;
vii. Non-Conformances report (to be kept in register) and status of elimination.
viii. *Defect Notification Period Reports*: within two weeks of completion of each Defect Notification Inspection mission (every 4 months);
ix. *Construction Works Final Report*: within one month of issue of the Statement at Completion;
x. *Final Report*: within 28 days of issuing the Final Payment Certificate;
xi. *Special Reports (if required)*: within two weeks from the Employer's request.

(i) Inception Report/ Mobilization Report

No later than two weeks after the contract effective date as specified in SCC, a brief report should be submitted providing information on:

- ✓ Engineer's models for the reports,
- ✓ Interim Payment Certificates format,
- ✓ staff mobilization schedule, structure and work plan,
- ✓ time reporting systems,

- ✓ results of survey of construction sites confirming the design appropriateness or identifying any issues that may need to be addressed,
- ✓ Project Management Information System,
- ✓ define the responsibilities to be delegated,
- ✓ establish the communication procedures with the Employer, and
- ✓ required procedures and formats to carry out the civil works contract administration tasks.

(ii) Work Programme Report

Within 21 days of receipt of the Initial Contractor's Work Programme, or 14 days of an updated Work Program, the Consultant must reply to the Contractor (with copy to Employer) indicating the Engineer's opinion either as a "no-objection" or the provision of comments on the Programme or any update and/or revision thereof. This reply shall be considered the Engineer's Work Program report.

The Engineer's Work Program Report will include the following:

a) A statement by the Engineer to the effect that there is either a "no-objection" to the Program or that there are comments made regarding the program.
b) copy of the Contractor's detailed time programme showing the order in which the Contractor intends to carry out the Works with the highlighted critical path/s, including general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution and acceptance of the Works, Contractor's key equipment and personnel mobilization plan, and other information as may be deemed necessary and appropriate by the Engineer, including coordination arrangements with other Employer's contractors / personnel, if any;
c) copy of the Contractor's detailed cash flow estimate, including a monthly breakdown of all prospective payments forecast to be made to the Contractor under the Contract;
c) A supporting report which will include:

- A list of critical path items and the related Contractors' estimates of delivery periods, accompanied by the Engineer's estimate of the latest delivery periods for each critical path item to warrant the completion in accordance with the Contract;

  Engineer's opinion on the requirements in the Contractor's proposed Programme for the information the Contractor reasonably requires from the Employer, reasonableness of the envisaged order and timing when that information is required, and all Employer's activities and constraints (such as approvals/reviews, etc.) and risks arising thereof;

- For the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location and the expected dates of:
  - Commencement of manufacture;
  - Contractors' and/or the Engineer's inspections and tests; and
  - Shipment and arrival at the Site;
- Materials and plant selected by the Engineer for inspections and tests, including an appropriate specification of the tests to be carried out and the associated arrangements;
- Names and particulars, including gender, of the Contractors' representative and other superintendence personnel approved by the Engineer in accordance with the Contract;
- Names of subcontractors consented by the Engineer in accordance with the Contract and, for each subcontractor, the cost and quantity of the subcontracted Works; this section will include a brief justification for the Engineer's consent;

- the details of a Project Management Information System (PMIS), acceptable to the Employer, for efficient and timely management of correspondence and documents from the Contractor, Employer and other stakeholder(s), as applicable, to be compatible with Employer's Management Information System (MIS) requirements, also including an implementation schedule.

- summary of the main actions with their estimated timing required of the Employer during the contract/s execution, summary of the issues under the contract guarantees and insurances with their key terms and matters for the client to pay specific attention to, such as expiry dates etc.

(iii)Weekly reports

The Engineer will prepare and submit to the Client a brief weekly report (excel format) on each Friday on each calendar week. The report will cover the cumulative and current progress of work for the week, a register of materials used and stockpiled to site, a liner register of works implemented detailing location and quantities (earthworks, pavement, asphalt, culverts, bridges etc). The report shall be submitted to the Employer by 12.00am on each Friday.

(iv) Contract's Monthly Progress Reports

The Engineer will prepare and submit to the Client monthly Progress Report within 10 days of the end of each calendar month. The first Report will cover the period up to the end of the first calendar month following the Engineer's mobilization. Each monthly progress report will include:

a) % Work progress achieved for the month as compared to planned progress and detail of total progress % as compared to planned total progress.

b) Summary in excel format of works implemented for the month (this is essentially summary of weekly progress reports).

c) Brief summary information about any events or circumstances arising in the period (or ongoing) which, in the Engineer's opinion, may create sufficient grounds for any time, claim and/or cost overrun under a Contract and the Engineer's recommendation of the measures being (or to be) adopted to overcome such events or circumstances and the contractual basis thereof;

d) Comparison in the form of a chart showing the Contractor's original cumulative cash-flow estimate, in monthly periods, of all payments to which the Contractor will be entitled under the Contract and the actual payments certified by the Engineer up to the end of the reporting period. Comments should include:

   - Details of any events or circumstances that have caused the discrepancy;
   - Assessment of the significance of such events or circumstances, including the Engineer's opinion on whether these may jeopardise the completion in accordance with the Contract;
   - Report on the measures being (or to be) adopted to overcome delays in respect of each event or circumstances and the contractual basis thereof;

e) A Table showing the dates and values of all IPS & IPCs received and the dates when submitted and paid.

f) A Table showing the payment status of the Consultant's contract.

g) A Table showing Consultant's staff attendance to site for the month (days present / absent) and comments / reasons for any absences (To be confirmed by Team Leader).

h) Comparison of the actual percentage completion of delivery compared with the planned for each critical path item identified in the Engineer's Work Programme Report; where any delivery is behind the Programme, the Engineer will comment on the likely consequences and state the remedial action being (or to be) taken;

i) Projection on Contract's total final price and the completion date;

j) Information about the use of provisional sums and an appropriate justification thereof;

k) Photographs showing the status of manufacture and of progress on the site;

l) Safety statistics, as provided by the contractors, including details of any major incidents and activities (e.g., strikes, riots, demonstrations, media attention, etc.) relating to workers, public, and environment;

m) List of all notices, consents, approvals, certificates or determinations given or issued by the Engineer within the reported period, including consents to the Contractor's Performance and the Advance Payment Securities; and

n) Other information, as may be required by the Client.

o) The reports are to be concise and contain only critical information related to progress, issues and key events for the month. In general, the consultant's report should not exceed 40 pages per contract, except for photos which should only be submitted electronically and the above requested copies of the project documents. Only critical correspondence should be provided, as annexes.

(v) Variations Reports

The Engineer must ensure Variation Orders are prepared in sufficient detail, accuracy and clarity to ensure that the Employer can comply with the Bank's procedures for the approval of Contract variations etc.

The Consultant shall immediately advise the Employer (in writing) as soon as he become aware that a Contract Variation order may be required. He shall then prepare and submit within 14 days (or as soon as practical) an analysis of the variation, or in cases where external rates / costs are involved (for example utility works) an estimate of when the analysis will be submitted. This will enable the Employer to inform the Bank of the potential VO.

The Engineer must ensure that wherever possible existing or similar rates that exist within the BoQ must be used.

Where new rates are developed, they should be based on existing BOQ cost breakdowns where possible, or when not possible there must be a least three cost estimates from independent sources or suppliers.

The report shall outline the basis for the Engineer's valuation of the variation including but not limited to the following:

- whether the works were unforeseen and under whose risk (Client's or Contractor's) the consequences fall in accordance with the works contract;
- whether the works fall under Variation (i.e. relate to the Permanent works) or not and if not then what are the advantages of an amendment of the contract vs tendering the extra scope out;

- assessment of the time implication with potential prolongation costs and analysis of whether a variation is warranted vis-a-vis a separate tender;
- the quantity and the value of the varied Works that can be determined using existing rates and prices set out in the contract;
- the quantity and the Engineer's estimate of the value of the varied Works, for new Items of work which can be determined by using similar rates and prices set out in the contract as the basis for valuation;
- the quantity and the Engineer's estimate of the value of the varied Works that require the development of new rates using external quotations/ cost estimates from specialised sub-contractors (e.g. electrical, communications);
  - the Engineer shall provide a detailed breakdown of the rates and prices set out in the contract and identify the price components that the Engineer used or intends to use for the valuation of the varied works;
- the quantity and the Engineer's estimate of the value of the varied Works, which can only be determined using the rates and prices not set out in the Contract;
  - the Engineer shall provide to the Client an appropriate justification of using rates and prices not set out in the Contract with the evidence of at least three quotes from the market to confirm the reasonableness of the suggested rates.

In case a variation is approved by the Employer, the Engineer shall immediately issue the Variation Order to the Contractor. He shall adjust the BoQ to reflect the changes made by the Variation Order.

(vi) Claims Reports

The Engineer shall implement the procedures for Claim management as set out in the General Conditions of the Works Contract in the assessment and determination of any Claim and in the management of Notices of Claim and / or interim claims.

The Engineer shall prepare and maintain a detailed register of all claims and potential claims. \

A summary of the status of Claims, Notices of Claim and potential Claims shall be included, updated and reported by the Engineer in each Monthly Progress Report to the Client. The summary must clearly show the current status of each Claim and events that may have occurred in the reporting period, and actions planned by the Engineer.

In the event of the receipt of a Notice of Claim, or Claim from the Contractor the Engineer shall immediately notify, and provide a copy of the Contractor's Notice of Claim to the Client, and record the Notice into the Claims Register.

The Engineer shall conduct a detailed analysis of all claims. The Engineer shall involve and coordinate work with project team members to obtain relevant background information and supporting documentation.

Each Claim must be assessed individually on its relevant merits.

The Engineer shall submit to the Employer a preliminary assessment of the validity of a Notice of Claim within 7 days of receipt of the Contractor's Notice and provide an assessment (including a risk assessment) with regard to the potential impact and outcome of the claim.

The Engineer shall advise what steps can be implemented to mitigate the potential impact of the Claim if it is formally submitted.

The Engineer will propose to the Employer solutions that may prevent a Notice of Claim becoming a formal Claim.

The Engineer shall require the Contractor to copy to the Client all details sent to the Engineer with regard to the submission of a Contractor's Claim.

The Engineer shall prepare all necessary letters and transmittals to be issued in respect of claims or potential claims.

(vii) 'Non-conformities' Report & register

The Engineer shall keep a 'Non-conformity' register and a 'Concession Request' register that shall be copied to the Employer monthly via the Monthly Progress Report. Concession requests for materials or work that does not meet the requirements of the Specifications (as recorded in the non-conformity register) shall be made part of the routine Quality Assurance inspection system (Request for Inspection System).

(viii) Defects Notification Period Reports

The Consultant shall prepare for each inspection visit a report detailing:

- outstanding and remedial works completed by the Contractor during the period;
- the location, nature, extent and analysis of the causes of defects identified, if any;
- recommended method to correct identified defects together with cost estimates;
- in consultation with the Client and Contractor the liability for correcting the defects identified.

The report shall be submitted to the Client within two weeks of completion of each Engineer's mission.

(ix) Construction Works Final Report

Within 30 days of the issue of Taking-Over Certificate the Consultant shall prepare and submits a final construction report which shall highlight all major points of interest that arose during the contract. The report will include, amongst others, the summary of the type, quality, quantities and sources of materials used on the project; contractor's plant and personnel; problems encountered and solutions employed; changes made by the Contractor in design and specifications and the reasons therefore; a breakdown of Contractor's performance in terms of respect of the Service Quality Criteria for maintenance services; a breakdown of the final cost of the contract item by item (at Taking-Over); a summary of contract changes and expenditure of provisional sums and contingency sums; a summary of all road and work execution related accidents happened during the contract execution.

(x) Final Report

Upon completion of the contract, i.e. immediately upon issuing the Final Payment Certificate, the Final Report shall be submitted by the Consultant. The report will include the content of the Final construction report plus all actions / events that have occurred within the Defect Notification Period including inspections by the Engineer and project closure actions including issue of Performance Certificate / Discharge, Final Certificate and final Project Costs, plus any recommendations for actions for future Contracts.

(xi) Special Reports

If required and at the request of the Client, within two weeks from any such request, the Consultant shall prepare a Special Report on any major issue raised by the contract implementation, including (but not limited to) modification of Drawings.

7. IMPLEMENTATION ARRANGEMENTS

The Client expects to appoint the Consultant in June 2026. The expected period to sign the Consultancy services Contract may be changed subject to the successful award of the construction works contract.

7.1 Implementation Arrangements

The works contract is expected to be signed following the successful conduct of a separate procurement procedure and is expected to have a duration of 30 months.

The Services to be provided by the Consultant are expected to last 58 months, which includes 1 month for pre-commencement activities, 30 months of works supervision, 24 months covering defects notification period and 3 months for the Performance Certificate issue and other closing activities.

The time period may be changed by written agreement between the parties.

7.2 Facilities

FACILITIES TO BE PROVIDED BY THE CLIENT

(a) *Services, facilities and property to be made available to the Engineer by the Client:* All available information, reports, documents, etc., related to the execution of the Works shall be made available to the Engineer by the Client. The facilities to be provided to the Engineers are described in the Works Contract.

(b) *Professional and support counterpart personnel to be assigned by the Client to the Engineer's team:* Counterpart personnel are not required.

The Consultant will supply all necessary computer hardware and software required to deliver the services, together with the necessary office equipment.

The Works Contractor shall provide, furnish and maintain contract offices for use by the Engineer and his staff on the site of the Works. The contract offices shall be at locations provided by the Contractor and approved by the Engineer. An indicative description of the offices and furniture to be provided by the Contractor is presented in Chapter 004, Engineer's Facilities, Part 2 - Requirements – Technical Specifications of the Works Contract, and land-line telephones will be provided by the Contractor for calls within Moldova. International calls will be at the Consultant's cost. The Contractor shall provide site safety equipment (high-visibility vests, helmets, boots, etc.).

In case the Contractor will use any proprietary software for design and planning, free use of a license for it would be provided to the Engineer for the duration of the services.

The Contractor shall provide and maintain Laboratory offices equipped with necessary laboratory equipment, including an office for the Engineer at the Laboratory.

The Client may assist the Consultant in obtaining any entry/exit visas, etc. However, any related costs shall be borne by the Consultant.

All other costs shall be borne by the Consultant and shall not be reimbursable. The Consultant will provide residential accommodation for their specialists, and local and international transportation, mobile telephones, topographical survey equipment, all necessary local support staff such as secretaries/interpreters, drivers, office assistants, field assistants, as well as any other goods, equipment or services for successful execution of Consultancy Services. The Consultant will also be responsible for all salaries, fees, allowances, insurance, leave pay and taxes for the staff involved in the assignment.

All employees, including the Consultant and the Contractor's personnel engaged in the activities related to the implementation of the project, must fully respect prescribed measures for occupational protection.

7.3 Project Data and Documents

All documentation related to the execution of the Works is and will remain the property of the Client after completion of the assignment. The Consultant shall not publish, use or dispose of this documentation without written consent of the Client.

The Engineer shall provide and maintain orderly working files and a comprehensive, computerized log for correspondence, minutes of meetings and conferences, submittal data, submittal registers, inspection and monthly progress reports, contract documents including amendments, notice to commence, variation orders and modifications, all in a Project Management Information System (PMIS), as approved by the Employer and compatible with the Employer's Management Information System (MIS). The Engineer shall also maintain all detailed deliverable inventory, scheduled dates and actual status. During the course of the works under the contract, the Engineer shall maintain any and all electronic and printed project documents in good order in its site office. From time to time, the Employer may request the Engineer to provide certain documents to interested parties, approved by the Employer. Documents of a sensitive nature should be stored separately in the reference library. Prior to completion of the final contract period, the Engineer shall deliver to the Employer any and all hard copies project documents, in good order and properly indexed and marked. Additionally, the Engineer shall provide the Employer with all electronic files of any and all project documents stored in a media acceptable to the Employer including a comprehensive, well-organized electronic index of all those documents. The copyright of all project materials and any software license used for the PMIS shall belong to the Employer.

The Client is currently developing a formal PMIS to manage, among the others, the following principal data:

- contract documents, correspondence and construction drawings;
- approval of contractor's drawings;
- contractual issues;
- progress monitoring, physical and financial;
- quality control;
- minutes of meetings;
- contractor's claims, change orders and certifications procedures;
- audits;
- design manuals, codes, standards, etc.;
- legal issues; and
- as-built data and documents.

The PMIS will be required to be compatible with standard office, database, project management and CAD software and Windows operating system.

ANNEX A

Detailed Information on Works Contract to be supervised

Works Contracts

The Works Contract for the **Construction of M3 Cimislia Bypass, km 18+700 - km 26+138**, can be received free of charge upon request (with sensitive data removed), once the Works Contract will be signed.

Consultant's Role

Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer ("Red book") Second edition 2017, reprinted 2022 with Amendments" published by the Federation Internationale Des Ingenieurs – Conseils (FIDIC), called "FIDIC" in this document shall be used as a contractual framework to implement the Works and the Consultant shall be the Engineer in the context this document and PCC amendments.

The duties of the Engineer under the Contract are defined therein and the Terms of Reference.

The Employer

The Employer under the FIDIC shall be the General Director of the NRA who may delegate part of his duties to a representative ("the Employer's Representative") in the course of the Contract.

Facilities for the Engineer

The facilities to be provided for the Engineer are stated in Chapter 004, Engineer's Facilities, Part 2, Requirements – Specifications of the Technical Specifications of the Works Contract.

Summary Description of the Works (the Contract prevails in case of any discrepancies)

The project requires the construction of a new single carriageway M3 Cimislia bypass road of 7.39 km length over green fields in order to avoid the traffic congestion and pedestrian safety issues experienced with transit traffic passing through Cimislia town centre. Cimislia has an estimated population of 12,464 residents as of 2024. The new road alignment comprises bypassing Cimislia town center by connecting to M3 Chisinau - Giurgiulesti road sector Porumbrei – Cimislia, which was recently constructed and the sector from Cimislia to Giurgiulesti.

The new road layout includes three relatively complex interchanges connecting to the existing M3 roads corridors (and R3), also linking with another roadway (G125 Sarata-Noua) located midway between the M3 roads.

The main works for rehabilitation consist of the following quantities:

Topsoil remove / stockpile / replace: 200,000m3

Excavation to fill embankment:690,000m3

Geogrid: 200,000m2

Geotextile: 125,000m2

3 x Interchanges

2 x Bridges

90,000m2 of asphalt coated Macadam (80mm), 90,000m2 Asphalt binder (70mm) & 90,000m2 of asphalt Polymer modified bitumen wearing course (50mm).

Prime & Tack Coats

Granular Base: 97.000m2 & stabilized base 95,000m2

Guard / safety fence: 10,000 Lm

Side drains: 5,000 Lm

Utilities including lighting, relocation of power lines, communication cables (7,000 Lm) and gas lines.

3 Bub-stops

Road marking and finishing works (signs etc).

Information on the design company that prepared the designs for the works Contract:

SRL “Universinj” (Republic of Moldova)

Address: MD-2004, str. Bucuriei 12A, Chisinau, Republic of Moldova
Email: mail@universinj.md
Fax: +373 22 74 88 50