

<b>Contract</b>	CS-04 Technical Supervision		
<b>Project</b>	School Education Reform Sector Development Project		
<b>Expertise</b>	Construction Supervision Firm		
<b>Source</b>	National	<b>Category</b>	Firm

## **I. INTRODUCTION**

The Ministry of Education and Science (MOES) of the Kyrgyz Republic is implementing the School Education Reform Sector Development Project, financed by the Asian Development Bank (ADB). The goal of the project is to improve the school system's performance in preparing graduates with subject knowledge and competencies. The project supports the implementation of the National Program for Education Development in the Kyrgyz Republic for the period 2021–2040.

The project comprises three components: (i) improving the quality and relevance of subject standards with a focus on interdisciplinary approach, (ii) improving the quality of teaching, and (iii) strengthening the network of innovative schools. Under Component 3, the project will renovate the premises and upgrade the infrastructure of 23 innovative schools and the Kyrgyz Academy of Education (KAE) for a total of 24 objects (A list of 24 objects is attached to this terms of reference).

To ensure high quality implementation of the third component and carrying out quality repair and construction works of 24 objects, the MOES will engage a Technical Supervision Firm to oversee the repair and construction works. The Executing Agency has also engaged a Design Firm to prepare the design and estimate documentation (DED) for the repair and construction works across the 24 objects. Based on the results of the work of the Design Firm, all the relevant documentation on the DED will be handed over to the Technical Supervision Firm to ensure high quality technical oversight and compliance during the implementation of the repair and construction works.

The Technical Supervision Firm will report directly to the Project Manager of the Project Implementation Unit (PIU) as well as to the Civil Engineer of the PIU. The Consultant will be required to maintain a close working relationship with the PIU, and to liaise effectively with the relevant permitting authorities of the Kyrgyz Republic on matters related to project implementation. In coordination with the PIU Project Manager, the Consultant will also be responsible for providing timely and accurate updates on the project progress to the MOES, ADB and stakeholders as required.

## **II. PURPOSE OF THE ASSIGNMENT**

The main objective of this assignment is to contribute to the successful implementation of the project through: (i) proper supervision of ongoing civil works, (ii) timely response to and prevention of potential problems, (iii) ensuring quality of civil works in accordance with national standards and regulations, (iv) ensuring site safety and environmental control, and (v) timely completion of works.

The consulting firm (Consultant) shall conduct technical supervision and monitoring of the construction works of the 23 schools and KAEs, assist the PIU in: (a) ensuring high quality standards in the execution of the construction works contracts with regard to structural interventions, energy efficiency, water supply, sanitation and hygiene, engineering systems, major repairs, and completion of works within the stipulated time and budget; and (b)

supervising the execution of the renovation and construction works contracts. The Consultant shall ensure that the construction works for each school comply with the full technical design and estimate documentation (DED), regulations, environmental and social requirements and commitments set out in the environmental and social instruments and contract documents. The Consultant will also manage and monitor any necessary or requested changes to the scope of work during the construction and commissioning phase.

After completion of the construction works, providing partial supervision for the period of responsibility for defects, if any.

### **III. SCOPE OF SERVICES**

The Consultant will supervise the work to accomplish all objectives and ensure the high quality of the repair and construction work, of this Statement of Work. The Consultant's responsibilities include, but are not limited to, the following:

1. The Consultant will provide ongoing technical supervision at the construction sites at each school and will be responsible for overseeing the execution of all Contractors' contracts for renovation and construction work, taking into account structural interventions, energy efficiency, water supply, sanitation and hygiene, engineering systems and repairs. The Consultant will also manage the contracts and ensure compliance with contractual provisions regarding quality and quantity of works.
2. The Consultant will review the Contractor's contracts to identify any omissions that compromise the completeness or consistency of the work. This review shall be conducted immediately upon commencement of services and shall be completed within the first two weeks. Upon completion of the review, the Consultant shall prepare a report of this review that sets forth all findings and recommendations to identify any omissions. This report shall be submitted with the initial report. Notwithstanding the foregoing, the Consultant shall promptly inform the PPR of any omission that may have a material impact on the contracts in terms of performance at the time of disclosure or identification of the omission.
3. The Consultant shall assist the PIU in monitoring compliance during construction and renovation works with the environmental and social requirements of the Asian Development Bank.
4. The Consultant will ensure that all required documents are in place for the commissioning of the completed repair and construction works in accordance with the current legislation of the Kyrgyz Republic.
5. The Consultant will take all necessary measures and control the quality of construction and repair works. The Consultant together with the PIU representatives will make all necessary engineering decisions required for successful and timely execution of the contract within the planned timeframe and budget.
6. The Consultant will provide the services of a sufficient number of qualified personnel and ensure that the Contractors who will perform works at the project sites are adequately mobilized to meet the contract requirements within the stipulated timeframe.
7. Provide the services of a Project Manager, as well as technical supervision engineers and other necessary technical personnel to provide technical supervision of construction works at the project facilities and site supervision as necessary to maintain the construction schedule, and to provide instructions to the Contractors regarding workmanship standards in accordance with relevant standards;
8. Assign necessary field personnel with temporary working quarters for field work, inspect field work and be responsible for all administrative work related to project supervision requirements, including proper conduct, participation and performance of duties of the

Contractor's personnel, and ensure that they properly record all equipment, materials, etc., delivered in accordance with the contracts;

9. The Consultant shall agree on a detailed work plan and schedule to be approved by the PIU prior to commencement of construction works. Coordinate visits of their staff to the project sites and establish communication channels and feedback schemes and incorporate their recommendations into reports for submission to the PIU;
10. Establish inspection teams to carry out supervision and identify one responsible on-site construction supervision specialist for each site to verify/correctly assess the quality, quantity and scope of construction works performed by the Contractors and ensure that they are progressively achieved until the works are completed in accordance with the contract requirements, including timeframes;
11. The Consultant shall also assist the PIU in preparing a quarterly report on compliance with the Environmental and Social Management Plan (ESMP) implementation requirements.
12. The Technical Supervision Engineer (Consultant's representative) shall be present at the assigned construction site during working hours;
13. Assist the PIU in reviewing and approving all shop drawings submitted by contractors and any proposals for changes in technical and cost conditions;
14. Approve Contractor's proposed designs/drawings for temporary work and verify that shop drawings meet Contractor's requirements;
15. Maintain on-site supervision and daily inspection of the construction work so that the work, materials and equipment comply with the contract requirements and co-compliant supplementary standards;
16. Inform the Contractors in writing of any defects or non-agreed deviations and immediately inform the PIU if the contractors refuse to rectify the defects in a timely manner;
17. Verify timely fulfillment of comments by the general contractor and elimination of identified deviations from the design solutions, elimination of allowed defects and failures;
18. Carry out on-site daily general supervision of construction works, including monitoring of the implementation of environmental and social impact mitigation measures stipulated in the sections of the approved detailed design and estimate document and the Environmental and Social Management Plan (ESMP);
19. Supervise compliance with occupational health and safety (OHS), occupational health and safety (OHS) on an ongoing basis;
20. In case of non-compliance with the protective measures, shall draw up a violation report specifying the period of correction of violations for the Contractor;
21. Submit a monthly report to the PIU on the completed work on safety measures. Regular progress reports prepared by the Field Supervision Engineer should include information on compliance with the requirements of the Environmental and Social Management Plan. This section should include a summary and description of monitoring activities, as well as a description of problems encountered and how they were addressed (as per the form provided by the PIU);
22. Monitor the complaint box installed at construction sites on a regular basis and forward letters as received to the PIU for timely review of letters; oversee contractor's schedule;
23. Monitor the availability and execution of necessary permits for construction and repair work, including environmental protection, occupational health and safety, and working conditions;
24. Participate in the supervision by the state controlling bodies;
25. Maintain a daily site log including the following: major materials and equipment, daily and major work performed during construction shifts, tests performed, results, unusual site conditions, contractor's employers and supervisors, etc. and keep a photographic record of the daily progress of the work. Copies of the logs and photo logs shall be submitted to the PIU representative each week;

26. Analyze the scope of work performed on each statement as compared to the drawings submitted by the contractor and submit comments and/or recommendations for acceptance if satisfactory and sub-confirm their conformance with the work performed and submit completed data, reports and test drawings to the PIU Representative;
27. Monitor the implementation of the approved work schedule; take necessary actions to ensure that the work schedule is met and submit a detailed weekly report to the PIU;
28. Keep an accurate record of any delays, their causes and related problems. The Consultant shall make every effort to assist the Contractors to resolve any delays to meet the schedule;
29. Review and approve the Contractors' scope of work and participate in technical board meetings to address technical and other issues identified during the repair and construction work, address issues raised in accordance with the early warning procedures specified in the work contract, and review plans for the remaining work. Minutes of these meetings are to be included in the monthly progress reports. The PIU representative will attend important meetings during the performance of the work and/or as needed;
30. Ensure that the Contractor fulfills its obligation to provide timely warning at the earliest opportunity to the Project Manager regarding specific probable future events or circumstances that may adversely affect the quality of work, increase the contract price, or delay the work;
31. Review requests from Contractors or assess any situations that may result in changes to the BOQ, issuing instructions to omit, add or increase the number of work items in the contract (BOQ) and their implications in terms of lead time, resources, environmental and social impacts, quality of work, usability/efficiency of the completed scope/subproject, associated costs and total contract price. The Consultant shall inform the PIU and seek the PIU's approval before issuing any instructions;
32. Participate in PIU technical review meetings and ADB implementation support or review missions and prepare relevant reports on behalf of the respective local governments and PPRs, as required;
33. Assist to local self-government (LSG) and PIUs in making decisions related to relevant changes in the project. Modified shop drawings or works prepared in accordance with the Construction Standards shall be submitted by the developer to the LSG and PIU;
34. Issue necessary instructions to contractors and review contractual pre-tensions and dispute resolution that may arise between the client and contractors, provide timely advice on acceptable and effective solutions and assist in their resolution;
35. Review Contractors' requests (if any) to extend the project implementation period and report the related impacts and request PIU authorizations;
36. Assist the PIU and its representatives in carrying out the necessary inspection, determination and supervision of any work to correct defects/ deviations identified during the completion phase of the construction and modernization of each school building, and assist the PIU and engineers in conducting final tests and inspections. The consultants shall prepare a completion report for each school and submit it along with all details including utilization of resources and final execution drawings;
37. Monitor the execution of the completed works during the period of responsibility for defects in conjunction with the LSG, which will take place periodically. If there are defects in the completed works, issue necessary instructions to the Contractor(s) to take corrective action in accordance with the work contract;
38. Participate in inspections carried out by the designers of the project documents during designer's supervision and/or technical inspection authorities;
39. To participate in the inspection of readiness at each stage of construction works and modernization of project facilities for their commissioning by the acceptance commission, which is established upon completion of construction works and consists of: the applicant (customer), the author of the project, the general contractor, the authorized official of the authorized state body for supervision and control in the field of architectural and construction

activities or its territorial body, which carried out supervision, and is approved by the head of the relevant authorized body.

#### **IV. REPORTING.**

Reporting requirements and deliverables (reports, milestones);

The Consultant shall submit reports to the PIU Manager. The reports shall be submitted in Russian in PDF format. All prepared materials shall be reviewed by the PIU Civil Engineer and agreed upon by the PIU Manager.

The consultant shall provide the following types of reports in the course of his/her work:

- Monthly progress reports to provide oversight of the repair and construction works to ensure compliance with the approved work schedule and design and estimate documents;
- Environmental and Social Management Plan (ESMP) compliance reports; and
- Final completion report or any other report as required.

#### **V. DATA AND CONDITIONS TO BE PROVIDED TO THE CONSULTANT**

The PIU is expected to make available to the Consultant, free of charge, available drawings, information and other documents related to the project. The Client will provide access to all facilities and key personnel associated with these facilities included in the project.

The Consultant shall verify the accuracy and validity of the drawings/information/documents provided by the Client before they are used for the project. In addition to the data/information provided by the Client, the Consultant shall be responsible for collecting any other drawings/information/documents required for the project through field surveys and studies.

All facilities required for this assignment shall be arranged and paid for by the Consultant. No office space shall be provided by the Client.

#### **VI. DURATION OF CONSULTING SERVICES**

The duration of the technical supervision services will depend on the time allotted for the completion of the repair and construction contracts. The total duration of the consultant's assignment is 12 months, which technically continues throughout the construction period. Upon completion of the repair and construction works, the Consultant will also provide services for technical supervision during the defect liability period, which is 12 months. During the defect liability period, the period and schedule of services shall include scheduled monitoring once every six months and one unscheduled visit as required due to defects. The Consultant shall perform unscheduled visits as needed.

#### **VII. PAYMENT TO CONSULTANT**

The contract entered into between the Client and the Consultant to supervise the performance of the repair and construction work shall be an "Actual Time Worked Contract". Payments under the consultancy contract based on actual hours worked shall be made on the basis of the Statement of Work (SOW) and the submitted monthly report in accordance with the reporting requirements described in these Terms of Reference. The Consultant shall submit its reporting to the PIU for approval by the PIU Civil Engineer and for approval by the PIU Manager. Upon approval of the reports by the PIU Manager, payments will be made to the Consultant.

In the event of additional repair and construction work by the contracting firm, the Consultant's contract amount will be modified in the appropriate percentage of the amount of the additional work.

## **VIII. ELIGIBILITY REQUIREMENTS AND SELECTION CRITERIA**

### **Evaluation Criteria for Consultancy Company:**

- At least five years of experience in technical supervision of the facility over the construction of buildings/structures;
- Experience in technical supervision of a similar project (at least one contract within the last five years);
- Experience in at least two projects financed by international organizations;

Professional specialists will be required to carry out quality supervision of construction works. Accordingly, key specialists will be evaluated during the selection process. The team of specialists can be supplemented according to the needs as and when required. In addition to key positions, the assignment will require several supporting technical and non-technical specialists.

- Manager/Chief Engineer - 1 position;
- Technical Supervisory Engineer - 24 positions;
- Environmental Engineer - 2 positions;
- Heating and Ventilation Engineer - 2 positions;
- Engineer - Electrician - 2 positions;
- Water Supply and Sewerage Engineer - 2 positions;
- Engineer - Estimator - 1 position.

### **Evaluation criteria for consulting company personnel:**

#### **Manager/Chief Engineer - 1 position.**

-Higher education/bachelor's degree in civil engineering, relevant certificate in the field of technical supervision of construction works. At least 10 years of professional experience in the field of construction.

Relevant in-country experience (fluent in local language / knowledge of local culture or administrative system, government organization, etc.).

-Appropriate experience as a project manager for at least 2 projects where the scope and complexity of work is similar to the proposed assignment.

-Experience of at least 7 years as a technical supervision engineer, of which at least 5 years of experience in construction or renovation of public buildings, preferably schools.

-Experience in at least 2 projects in the field of construction supervision, of which at least 2 projects as project manager in which he/she led and managed technical supervision in addition to other administrative tasks related to project management.

-Knowledge and experience in modern construction technology, including the application and performance values of equipment and plant, and civil construction organization methodologies, practices, tools and techniques is required. Experience in improving seismic safety and energy efficiency of buildings will be an advantage. Must be familiar with safety regulations, environmental measures management plan.

-Experience in construction in general and in particular, experience in CIS projects is an advantage.

#### **Technical Supervision Engineer - 24 positions.**

-Higher education/at least a bachelor's degree in civil engineering, qualification certificate in engineering services (technical supervision of construction works). At least 7 years of professional experience in the field of civil engineering.

- Related in-country experience (fluent in local language / knowledge of local culture or administrative system, government organization, etc.).
- Appropriate experience in technical supervision of at least 5 years, of which at least 3 years of experience in the construction or renovation of public buildings, predominantly schools. Execution of at least one major construction contract in a similar capacity.
- Knowledge and experience in modern construction techniques, including the application and performance values of equipment and plants, as well as methodologies, practices, tools and techniques of civil engineering construction organization is required. Experience in improving seismic safety and energy efficiency of buildings will be an advantage. The Technical Supervision Engineer should be familiar with safety regulations, environmental management plan.
- Experience in construction in general and in particular, experience in CIS projects is an advantage.

#### **Environmental Engineer - 2 positions.**

- Higher education/diploma in environmental engineering or equivalent specialty,
- Higher education/diploma in Environmental Engineering or equivalent specialty, qualification certificate in Environmental Protection. At least 3 years of professional experience in the field of Environmental Protection.
- Related in-country experience (fluent in local language at working level / knowledge of local culture or administrative system, government organization, etc.).
- Relevant work experience of at least 1-2 years in the field of environment, health and safety in construction. Execution of at least one contract of analogous construction.

#### **Heating and Ventilation Engineer - 2 positions.**

- Higher education/bachelor's degree in the field of heating and ventilation, qualification as a heating and ventilation engineer. At least 7 years of professional experience as a mechanical engineer.
- Related in-country experience (fluent in local language / knowledge of local culture or administrative system, government organization, etc.).
- At least 5 years of relevant experience in the installation of mechanical and electrical installations and in particular HVAC systems in large buildings, including quality control of work and material testing. Execution of at least one contract in a similar quality.

#### **Engineer - Electrician - 2 positions.**

- Higher education/bachelor's degree in electrical engineering, electrical engineering qualification certificate. At least 7 years of professional experience as an Electrical Engineer.
- Related in-country experience (fluent in local language / knowledge of local culture or administrative system, government organization, etc.).
- Appropriate work experience of at least 5 years related to the installation of electrical systems in buildings (e.g., transformers, wiring, ventilation, lighting). Execution of at least one contract in a similar capacity. The Electrical Engineer will manage construction and energy efficiency upgrades to facilities related to electrical systems.

#### **Water and Wastewater Engineer (W&W) -2 positions.**

-Higher education/bachelor's degree in the field of water and wastewater engineering, qualifying certificate of water and wastewater engineer. At least 7 years of professional experience as a W&W Engineer.

-Related in-country experience (fluent in local language / knowledge of local culture or administrative system, government organization, etc.).

-At least 5 years of relevant experience in the installation of plumbing and drainage systems in buildings, including quality control and material testing. Execution of at least one contract in a similar capacity.

**Engineer - Estimator - 1 position.**

-Higher education/diploma in civil engineering or equivalent, qualification certificate of engineer-estimator. At least 5 years professional experience in construction estimating.

-Related in-country experience (fluent in local language at working level / knowledge of local culture or administrative system, government organization, etc.).

-Appropriate experience of at least 3 years in developing construction estimates for the construction of social projects. Execution of at least one contract of similar construction.