# IsDB/ISFD/GPE SmartED Project UZB1041

# “Improving the Quality and Efficiency of Education Services

# in the Republic of Uzbekistan”

# TERMS OF REFERENCE

**Development of detailed designs for schools**

# INTRODUCTION

In accordance with Presidential Decree No. PP-4224 dated March 5, 2019, *“On Measures to Further Expand and Deepen Partnership with the Islamic Development Bank Group and the Arab Coordination Group Funds”*, and Presidential Decree No. UP-134 dated May 11, 2022, *“On Approval of the National Program for the Development of School Education for 2022–2026”*, the Ministry of Preschool and School Education (MoPSE) of the Republic of Uzbekistan has launched the project **“Improving the Quality and Efficiency of Education Services in the Republic of Uzbekistan.”**

To support the implementation of this strategic initiative, the Government of Uzbekistan has secured financial assistance from the Islamic Development Bank (IsDB). The project will be co-financed by the Islamic Development Bank, the Islamic Solidarity Fund for Development (ISFD), and the Global Partnership for Education (GPE), with a total financing package of **US$200 million**.

The Ministry of Preschool and School Education (MoPSE) will serve as the Executing Agency (EA) for the project. MoPSE has extensive experience in implementing large-scale education sector initiatives, including those supported by international development partners such as the IsDB, Asian Development Bank, World Bank, USAID, UNICEF, UNESCO, KOICA, JICA, TIKA, OSCE, and the Saudi Fund for Development.

As the EA, MoPSE will assume full responsibility for the project’s operational, technical, and financial management. This includes oversight of civil works to ensure compliance with national standards, as well as adherence to the technical specifications for procurement and delivery of equipment.

Project implementation will be supported by a dedicated **Project Management Unit (PMU)** and a team of consultants. In addition, **UNICEF** and **UNESCO** will provide technical assistance and contribute to day-to-day project operations. Strategic oversight and coordination will be ensured by a **Project Steering Committee**, chaired by the Minister of Education, which will monitor project progress and address any implementation challenges that arise.

# PROJECT OBJECTIVE

### Project Objective

The objective of the project is to improve the learning environment and support systemic reforms that will enable the sustainable implementation of an **inclusive, competency-based education system**, ultimately enhancing **student learning outcomes** across Uzbekistan.

### Strategic Alignment

The project will be implemented in alignment with Uzbekistan’s key strategic frameworks, including:

The **Law on Education**;

The **Concept of the National Education System**;

The national development strategy **“Uzbekistan – 2030”**;

The **2023–2026 Roadmap for Reforming the Education System**.

These documents collectively outline priority areas for comprehensive education reform, including:

* **Modernizing the content** of the continuous education system, and improving the training, retraining, and professional development of educators;
* **Improving pedagogical methods** and gradually incorporating personalized learning approaches;
* **Integrating modern ICT tools and innovation** into preschool and school education;
* **Enhancing the material and technical infrastructure** of educational institutions and improving budget efficiency;
* Promoting **non-formal and out-of-school learning** methods to foster youth development and employability;
* **Fostering a competitive environment** in education through the promotion of public-private partnerships (PPPs);
* **Implementing the Five Initiatives**, a national program aimed at expanding learning opportunities and fostering youth development;
* **Improving teacher motivation** through phased salary increases, material incentives, and strengthened social protection for public education staff.

### Key Goals and Activities

The project will address the above priorities through the following interventions:

* **Construction of 58 modern secondary schools**, fully equipped with appropriate furniture and digital technologies;
* **Reform of preschool and school education systems**, in line with national and international standards;
* **Revision and modernization of national curricula** for preschool and school education;
* **Development and implementation of Early Learning and Development Standards (ELDS)** in the preschool system;
* **Integration of inclusive education practices** into the general secondary education system;
* **Development of a national conceptual and programmatic framework for inclusive education**;
* **Transformation of the teacher professional development system**, transitioning to a **Continuous Professional Learning (CPL)** model;
* **Design and rollout of a national mentoring system** for educators;
* **Establishment of a comprehensive quality assurance system** for both preschool and school education.

# PROJECT OVERVIEW

### Project Components

The project comprises the following six key components:

1. **Improving Access to Inclusive, Student-Friendly Education Facilities**

Construction of modern and inclusive schools that meet international standards, designed to accommodate the needs of all students, including those with disabilities.

1. **Enhancing the Quality and Efficiency of Education Services**

System-level reforms, curriculum modernization, teacher professional development, and implementation of quality assurance frameworks to improve student learning outcomes.

1. **Improving the Quality of Preschool Education**

Strengthening early childhood education through the introduction of Early Learning and Development Standards (ELDS), updated teaching methods, and capacity building of preschool educators.

1. **Project Management Support**

Technical and administrative support to ensure effective implementation, coordination, monitoring, and evaluation of project activities, led by a dedicated Project Management Unit (PMU).

1. **Financial Auditing Services**

Independent financial audits to ensure transparency, accountability, and compliance with international financial reporting standards.

1. **Contingent Emergency Response Component (CERC)**

A flexible mechanism that allows rapid reallocation of project funds to address emergency needs in response to unforeseen crises or natural disasters.

### Infrastructure Development

Under Component 1, the project will support the **construction of 58 modern educational institutions** across various regions of Uzbekistan, including Republic of Karakalpakstan, Khorezm, Fergana, Andijan, Namangan, Bukhara, Navoi, Samarkand, Surkhandarya, Kashkadarya, Jizzak oblasts, Tashkent oblast and Tashkent city.

To guide this initiative, **five standardized model designs** have been developed and officially approved. These designs incorporate **inclusive architectural solutions**, ensuring full accessibility and a supportive learning environment for students with disabilities.

## Table 1. Location of new construction sites

|  |  |  |  |
| --- | --- | --- | --- |
| **№** | **Name of territory** | **Location** | **Capacity of schools** |
| **3** | **Republic of Karakalpakstan** |  | **3 960** |
| 1 | City of Nukus | MCC "Abat Makan" | 1 650 |
| 2 | Karauzak district | MCC "Kutli Maqa" | 660 |
| 3 | Turtkul district | MCC “Yangiobod”  | 1 650 |
| **8** | **Andijan region** |  | **8 580** |
| 1 | City of Andijan | MCC "Sadoqat" | 1 650 |
| 2 | Asakin district | MCC "Uchtosh" | 990 |
| 3 | Asakin district | MCC "Olakanot" | 660 |
| 4 | Andijan district | MCC Urikzor | 990 |
| 5 | Andijan district | MCC "Guzar" | 990 |
| 6 | Andijan district | MCC "Kumkucha" | 990 |
| 7 | Andijan district | MCC Yuksalish  | 1 650 |
| 8 | Balikchi district | MCC "Sherobod" | 660 |
| **1** | **Bukhara region** |  | **1 650** |
| 1 | City of Bukhara | MCC "B. Naqshband" | 1 650 |
| **3** | **Jizzak oblast** |  | **4 950** |
| 1 | Bakhmal district | MCC "Aktosh" | 1 650 |
| 2 | Galliaaral district | MCC "Lalimicor" | 1 650 |
| 3 | Dustlik district | MCC "Sanoatchilar" | 1 650 |
| **8** | **Kashkadarya region** |  | **12 210** |
| 1 | Karshi city | MCC "Kavali" | 1 650 |
| 2 | Karshi city | MCC “Navo” | 1 650 |
| 3 | Deqonabad district | MCC "Oydin yoli" | 1 650 |
| 4 | Karshi district | MCC "Chaman"  | 660 |
| 5 | Yakkabaga district | MCC “Obod” | 1 650 |
| 6 | City of Shakhrisabz | MCC "Zargarlik" | 1 650 |
| 7 | City of Shakhrisabz | MCC “Yashil Diyor”  | 1 650 |
| 8 | Nishan district | MCC "Yoshlar Diyori" | 1 650 |
| **2** | **Navoi region** |  | **1 650** |
| 1 | City of Navoi | 18-b small region  | 1 650 |
| 2 | City of Navoi | MCC "Yoshlik" | 1 650 |
| **3** | **Namangan region** |  | **2 310** |
| 1 | Papal district | MCC "Mirishkor" | 990 |
| 2 | Chust district | MCC "Chust Gulzori" | 990 |
| 3 | Kasansay district | MCC "Soicha" | 330 |
| **7** | **Samarkand region** |  | **7 590** |
| 1 | City of Samarkand | MCC "Bakhodir Yalangtush" Massif Karasuv | 1 650 |
| 2 | Ishtikhan district | MCC "Kutarma" Massif Kutarma | 990 |
| 3 | Kattakurgan district | MCC "Kadan" Massif Kadan | 990 |
| 4 | Akdarya district | MCC “Tarakkiyot” | 990 |
| 5 | Samarkand district | MCC "Mirzo Ulugbek" | 990 |
| 6 | Urgut district | MCC "Chorraҳa". | 990 |
| 7 | Pastdargam district | MCC "Chortut" | 990 |
| **5** | **Surkhandarya region** |  | **5 280** |
| 1 | City of Termez | MCC “Kattabogh”  | 990 |
| 2 | Termez district | MCC “Yangiobod”  | 1 650 |
| 3 | Boisun district | MCC "Shursoy"  | 990 |
| 4 | Altinsay district | MCC "Ipak" | 990 |
| 5 | Shurchi district | MCC "Joyilma" | 660 |
| **4** | **Tashkent region** |  | **2 640** |
| 1 | Bekabad district | MCC "Dalwarzin" | 660 |
| 2 | Urta Chirchik district | MCC “Tarakkiyot”  | 660 |
| 3 | Parkent district | MCC "Kizilsoy" | 660 |
| 4 | Chinaz district | MCC “Yallama” | 660 |
| **7** | **Fergana region** |  | **9 900** |
| 1 | City of Margilan | Yangi Margilon township MCC “Yuksalish” | 1 650 |
| 2 | City of Fergana | MCC “Urmonchilar” | 660 |
| 3 | Kuvasai City | MCC “Pacana” | 1 650 |
| 4 | Baghdad district | MCC “Dustlik” | 1 650 |
| 5 | Yazyavan district | MCC "Yoshlik" | 1 650 |
| 6 | Fergana district | MCC “Berunium” | 990 |
| 7 | Kakand city | MCC "Mukumiy" | 1 650 |
| **3** | **Khorezm region** |  | **3 960** |
| 1 | Urgench city | MCC “Ziyokor” | 1 650 |
| 2 | Kushkupirsky district | MCC “Kunazei”  | 1 650 |
| 3 | Yangibazar district | MCC "Iftikhor" | 660 |
| **4** | **City of Tashkent** |  | **6 600** |
| 1 | M. Ulugbek district | MCC “Jasorat”  | 1 650 |
| 2 | Sergeli district | MCC “Keng Makon” | 1 650 |
| 3 | Yashnabad district | MCC “Bogbon” | 1 650 |
| 4 | Yangikhayat district | MCC “Hushnood”  | 1 650 |

*\*Mahalla Citizens' Council. Location and capacity of schools may change depending on the proposals of regional government authorities.*

Educational equipment and inventory. Procurement of modern educational and IT equipment and inventory to equip new educational institutions, including special equipment for the adaptation and integration of children with special educational needs.

Improvement of the general education system. Implementation of reform in the system of general secondary education. Improving the quality of educational services for children with special educational needs. Improvement of educational programs, including through the introduction of inclusive education components to create favorable learning conditions for children with disabilities.

Improvement of the preschool education system. Further improvement of the preschool education system through capacity building of teachers, development of teacher manuals and procurement of teaching and learning materials, as well as development of a system for monitoring early childhood development.

# CONSULTING ASSIGNMENT OBJECTIVES

The main objective of the consultancy assignment is to develop detailed (working) designs, including technical specifications of construction works as well as equipment and furniture for schools.

# SCOPE OF CONSULTING SERVICES

In order to expand development opportunities for the maximum number of children, there is a need to design institutions that ensure the implementation of correctional and special pedagogy within general education institutions.

The EA has prepared and approved 4 standard designs for the construction of new schools, which take into account architectural solutions for children with disabilities.

## Table 2: Typical projects

|  |  |  |
| --- | --- | --- |
| **Typical projects** | **School capacity** | **Number of classrooms** |
| Model project 1 | 330 students | 11 |
| Model project 2 | 660 students | 22 |
| Model project 3 | 990 students | 33 |
| Model project 4 | 1,650 students | 55 |

Detailed designs, including Bill of Quantities (BQ) and technical specifications of civil works for the schools listed in Table 1 above shall be prepared by a design consultancy firm. It should be noted that given the large number of schools, it is envisaged that design and construction will be carried out in phases.

The construction of schools is scattered in different regions of the country. The following mechanism will be adopted to ensure effective construction supervision:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year of construction** | **Year 2** | **Year 3** | **Year 4** | **Year 5** |
| Number of schools | 15 | 20 | 16 | 7 |

A phased approach to construction as outlined above will be implemented, which will allow for quality oversight of each school within the capacity of the government.

The Consultant shall ensure preparation, submission and control of required drawings and documents, and timely receipt of permits. Also, the Consultant shall work closely with the PMU to ensure proper documentation, submission of fees, and monitoring of correspondence.

### DETAILED DESCRIPTION OF CONSULTANT’S TASKS.

### Task 1: Project Initiation & Review of Existing Information

The Consultant shall initiate the project by reviewing all available technical data provided by the PMU. This includes surveys such as topographic and geotechnical data, as well as site-specific studies. The Consultant will also evaluate designs from earlier project phases to identify opportunities for improvement, cost efficiency, and green technology adoption.

**Deliverables:**

* Technical Review Report on existing data and previous school designs
* Data Gap Identification Report

All activities must comply with the national standards and technical specifications prescribed by the Ministry of Construction of the Republic of Uzbekistan.

### Task 2: Conduct Additional Field Investigations

The Consultant will carry out any missing or supplemental field investigations to enhance the reliability of the designs. These may include updated soil tests, sediment analysis, water table measurements, and identification of locally available construction materials.

**Deliverables:**

* Detailed Field Investigation Reports
* Geotechnical and Hydrological Test Results
* Summary of Locally Available Materials

The consultant shall conduct all site surveys (topographic, geotechnical, and above/underground) to provide a proper basis for completing the detailed design. The scope of work should cover all adjacent areas that may be affected by the project. The requirements for topographic surveys for infrastructure design shall be as follows:

 establishing new control (reference) points and landmarks;

 topographic survey of boundaries, roads, properties, trees and greenery, topography, etc;

 detection of underground utility networks (lines);

 drawings of the topographic survey.

Engineering and geological surveys provide a comprehensive study of engineering and geological conditions of the territory (site, plot, route) of the planned construction, including relief, geomorphological, seismic, hydrogeological conditions, geological structure, composition, state and properties of soils, geological processes and phenomena, changing conditions of developed (built-up) areas, in order to obtain the necessary and sufficient materials to justify the design of facilities. It is necessary to follow KMK 1.02.07-97 "Engineering surveys for construction" when carrying out the surveys.

At the end of the survey, the consultant will prepare reports on the work carried out. The results of the topographic survey will also be provided in electronic form in accordance with the regulatory documents.

Investigation methodologies and documentation shall adhere to the requirements of Uzbekistan’s national geotechnical and environmental regulations.

### Task 3: Develop Conceptual and Layout Designs

Using model school layouts provided by the Ministry of Pre-school and School Education, the Consultant will develop site-adapted conceptual designs. These will be based on classroom size norms, functional area planning, and terrain conditions.

**Deliverables:**

* Conceptual Designs adapted to each site
* 3D visual presentations (AutoCAD, PDF)
* PMU-approved finalized layout plans

Design planning must follow Uzbekistan’s СНиП (SNiP) standards and urban planning codes.

### Task 4: Integrate Sustainability, Resilience, and Child-Friendliness

The Consultant shall incorporate energy-efficient, climate-resilient, and child-centered features into the school designs. Key considerations will include solar energy usage, natural ventilation, local climate adaptation, and earthquake resistance.

**Deliverables:**

* Sustainability and Green Architecture Design Strategy
* Technical Memo on Earthquake and Hazard Protection
* Design Compliance Matrix with local and international norms

All sustainable design features must comply with national energy efficiency codes and seismic safety standards regulated by the Ministry of Construction.

### Task 5: Prepare Detailed Engineering Design (DED) Packages

The Consultant shall prepare full DED packages for each school, including:

* Architectural and structural drawings;
* Electrical, water, and sewage systems;
* BOQs and equipment and school furniture specifications;
* Bidding documents and work schedules.

The consultant shall carry out the Engineering Design and prepare detailed designs for each element of the project, as required. These detailed designs should include Complete Technical Specifications and works packaging (based on a market study carried out by the Consultant on the current situation in the construction section in Uzbekistan, with analysis of national and regional contractors’ capacity). All relevant design calculations, route maps, aerial and satellite imagery, schedules, diagrams, and drawings shall be provided to the Client in paper and/or electronic form as required.

**Deliverables:**

* Full DED Package per school:

▪ Technical Reports

▪ Drawings (AutoCAD, PDF)

▪ BOQs and Estimates (Excel)

▪ Technical Specifications

The consultant shall prepare a Detailed Bill of Quantities (BoQ) for the project elements executed under the FIDIC Red Book. The BoQ shall contain sufficient information on the quantities of materials to be procured and works to enable (i) bidders to submit accurate quotations and (ii) the Client and Contractors to make periodic assessments of the quantities of works to be carried out. The BoQ shall include a list of environmental mitigation measures related to temporary impacts during the works.

The consultant shall calculate the need for power supply for all project facilities, including back-up options. Energy saving concepts required to effectively reduce energy costs.

- The consultant shall carry out all relevant design and analysis procedures necessary to optimize sizing and equipment selection.

DEDs must strictly follow Uzbekistan’s “Design and Construction Norms” (including СНиП, ГОСТ, and other applicable technical codes). Drawings must follow the required scales: horizontal 1:500, vertical 1:100.

### Task 6: Obtain Compliance Approvals and Permits

The Consultant will coordinate with all required authorities to obtain positive expert conclusions, including environmental expertise, and all necessary construction permits. This includes direct coordination with local architecture and urban planning departments.

**Deliverables:**

* Expert Review Approvals from State Expertise Authority
* Environmental Clearance Certificates
* Construction Permits and Correspondence Logs
* Architectural planning assignment (APZ #1 and APZ #2)
* Council conclusion for Architecture and Urban Planning
* Geological and ecological conclusion
* Relevant conclusions from electricity networks, gas supply, water supply and wastewater, road construction, telephone and internet communications, fire safety and other related organizations
* the detailed project document is subject to a mandatory examination for compliance with the requirements set out in the norms and rules of urban planning for creating conditions for persons with disabilities
* The other necessary construction permits/documents that may be required.

The expenses related to the obtaining the above-mentioned approvals/permits will be covered by the Consultant.

The Consultant shall ensure that all designs are approved by the authorized body for state expertise and comply with laws and regulations governing public infrastructure.

### Task 7: Conduct Environmental and Social Impact Assessments

To meet IsDB and national requirements, the Consultant will conduct ESIAs and prepare ESMPs when required. These will assess and mitigate impacts on local communities and the environment.

**Deliverables:**

* Environmental and Social Impact Assessment Reports if required.
* Site-Specific Environmental Management Plans (ESMPs) if required.

The environmental documentation must comply with Uzbekistan’s Law on Environmental Expertise and MFI/IsDB environmental guidelines.

### Task 8: Cost Estimation and Material Specification

The Consultant will generate accurate cost estimates based on current market prices, while also evaluating alternative cost-saving design solutions that maintain performance standards.

**Deliverables:**

* Confidential Construction Cost Estimates
* Material and Equipment Lists
* Cost Optimization Proposals and Justifications

Costing shall be based on standard market rates and aligned with Uzbekistan’s public procurement and construction pricing regulations.

### Task 9: Author’s Supervision During Construction

The Consultant will regularly monitor the implementation of designs on site. Activities include inspection of structural work, verification of material quality, and resolution of technical issues during execution.

**Deliverables:**

* Site Supervision Reports
* Issue Logs and Technical Advisories
* Final Construction Handover Protocol

All supervision tasks must confirm that the implementation complies with the approved DED and the regulatory codes enforced by Uzbekistan’s state construction oversight authority.

### Task 10: Reporting and Documentation Submission

The Consultant will prepare and submit all required reports and DED documentation in line with the format, language, and standards approved by the PMU and the Ministry.

**Deliverables:**

* Initial and Final DED Reports per School
* All Design Files in the following formats:

▪ MS Word (Reports)

▪ MS Excel (Cost Tables)

▪ AutoCAD and PDF (Drawings)

* 4 Printed Sets + 1 Digital Copy (on CD) per site

All documents must comply with formatting, structure, and technical content requirements as per the national design documentation guidelines approved by the Ministry of Construction.

# CONTRACT DURATION AND SELECTION METHOD

The assignment will be a lump-sum contract and the start date of the consultancy services is planned for 3rd quarters of 2025. The deadline for Detailed design development activities is **eight (8) months**, including receipt of positive expert opinion on Detailed Design packages from SUE "Expertise of Urban Planning Documentation" or its branches. The author’s supervision shall be conducted till the end of construction period. The deadline of author’s supervision is 48 months after the detailed design development period. The selection method of consultant: consultant’s qualification based selection in accordance with Guidelines for the Procurement of Consultancy Services under IsDB Project Financing published in April 2019 and revised February 2023.

# TEAM COMPOSITION AND QUALIFICATION REQUIREMENTS

**1. General Experience**

The Consultant must be a legally registered and operational entity with a minimum of **10 years** of professional experience in architecture, engineering design, and construction consultancy services. The firm should have completed multiple public infrastructure projects, preferably in the education or social sectors.

* Proof of legal registration and firm profile
* Minimum 10 years of general consultancy experience

**2. Specific Experience**

The Consultant must demonstrate a proven track record in developing detailed design for large-scale infrastructure projects, particularly in the educational sector.

The firm must have successfully completed **at least three (3)** similar assignments in the past **7 years**, involving:

* Development of **detailed engineering designs for public infrastructure** (preferably schools or similar facilities);
* Experience with **multilateral financial institutions (MFIs)** such as IsDB, ADB, World Bank, or similar, is an advantage.

Each reference project must include:

* Description of services provided (DED, supervision, permitting)
* Scope (number of sites, school types)

### 3. Technical Capacity

The firm must have in-house or legally associated access to the following key technical expertise:

* Urban and architectural design
* Structural engineering (including seismic design)
* Electrical and mechanical engineering
* Environmental and social safeguards
* Cost estimation and procurement documentation
* Permitting and approval coordination in Uzbekistan
* Availability of qualified interdisciplinary team (CVs of Key Experts)
* Capacity to manage multi-site assignments

### 4. Legal and Regulatory Compliance

The Consultant must:

* Be licensed or authorized to conduct engineering and design activities in the Republic of Uzbekistan
* Comply with national design standards, including SNiP, GOST, and other regulations approved by the Ministry of Construction
* Have no conflict of interest with the Employer or related stakeholders

### 5. Local Presence

Preference will be given to firms with existing operations or partnerships in Uzbekistan to ensure:

* Efficient site investigations
* Access to local regulatory bodies for permitting
* Effective author’s supervision during construction

### 6. Key Experts (Indicative)

The following Key Experts are required, with the indicated minimum qualifications:

|  |  |  |
| --- | --- | --- |
| **№** | **Position Title** | **Minimum Qualification Requirements** |
| 1 | **Team Leader / Chief Designer** | - University master’s degree in architecture, civil engineering, or a related field- Minimum **15 years** of professional experience- At least **5 similar assignments** as team leader in public infrastructure or school design projects- Proven experience managing multidisciplinary teams and coordinating with government agencies- Strong knowledge of Uzbekistan’s СНиП, ГОСТ, and other design standards |
| 2 | **Architect** | - Master’s Degree in architecture- Minimum **10 years** of design experience- At least **3 projects** involving school or public building design- Familiarity with inclusive and child-friendly architectural norms- Proficient in layout planning, 3D modeling, and AutoCAD |
| 3 | **Structural Engineer** | - Bachelor’s Degree in structural or civil engineering- Minimum **10 years** of experience in structural design- Demonstrated expertise in **earthquake-resistant structures** per СНиП standards- Experience with public buildings or schools preferred |
| 4 | **Electrical Engineer** | - Bachelor’s Degree in electrical engineering- Minimum **8 years** of experience in building services and energy-efficient electrical system design- Familiarity with national codes for public electrical infrastructure- Experience in solar integration is an advantage |
| 5 | **HVAC Engineer** | - Bachelor’s Degree in mechanical or HVAC engineering- Minimum **8 years** of experience in designing ventilation and climate systems- Familiarity with **energy-efficient** and **climate-responsive** HVAC systems- Knowledge of applicable СНиП HVAC standards |
| 6 | **Water Supply and Sanitation Engineer** | - Bachelor’s Degree in civil, sanitary or hydraulic engineering- Minimum **8 years** of experience in utility design- Strong experience with **WASH systems** in institutional or public buildings- Understanding of environmental compliance and hygienic design codes |
| 7 | **Environmental Specialist** | - Bachelor’s Degree in environmental science, environmental engineering, or related discipline- Minimum **8 years** of experience in **ESIA and SEMP** preparation- Experience with **MFI (e.g. IsDB, ADB, WB)** environmental safeguards- Knowledge of Uzbekistan’s Law on Environmental Expertise |
| 8 | **Estimating Engineer / Quantity Surveyor** | - Degree in civil engineering, construction economics or quantity surveying- Minimum **8 years** of experience in cost estimation for public infrastructure- Experience preparing **BOQs, cost tables** and applying market-based unit rates- Familiarity with Uzbekistan’s public procurement regulations |
| 9 | **AutoCAD Specialist** | - Diploma or technical qualification in drafting or design- Minimum **5 years** of experience in AutoCAD for civil/building works- Skilled in 2D and 3D drafting, layout detailing, and preparation of design documentation- Experience supporting multidisciplinary teams preferred |

All experts must be proficient in Uzbek; knowledge of Russian is desirable.

The Consultant provides sufficient support staff to complete the assignment at his own expense*.* Effective management and support services should be available.

The following list of experts should be understood as a provisional. However, the Consultant may add additional and/or multidisciplinary personnel as deemed necessary and appropriate for the task based on its professional judgment.

**KEY AND NON-KEY** **PERSONNEL TIME INPUTS**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Job title** | **Number of experts** | **Input (person-month)** |
| **DETAILED DESIGN DEVELOPMENT PHASE** |
| **KEY EXPERTS** |  |  |
| 1. | **Team Leader / Chief Designer** | 1 | 8 |
| 2. | **Architect** | 1 | 8 |
| 3. | **Structural Engineer** | 1 | 8 |
| 4. | **Electrical Engineer** | 1 | 8 |
| 5. | **HVAC Engineer** | 1 | 8 |
| 6. | **Water Supply and Sanitation Engineer** | 1 | 8 |
| 7. | **Environmental Specialist** | 1 | 8 |
| 8. | **Estimating Engineer / Quantity Surveyor** | 1 | 8 |
| 9. | **AutoCAD Specialist** | 1 | 8 |
|  **SUBTOTAL:** | **9** | **72** |
| **NON-KEY EXPERTS** |  |  |
| 10. | **Estimating Engineer / Quantity Surveyor** | 3 | 18 |
| 11. | **Design engineer** | 3 | 18 |
| 12. |  **Surveyor (geodesist)** | 3 | 18 |
|  | SUBTOTAL: | **9** | **54** |

1. **DELIVERY AND PAYMENT SCHEDULES**

Distribution of payment for the development of the Detailed Design will be made in accordance with the table below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Payment/Report Name** | **% of the contract amount** | **Submission deadline** | **Terms of payment** |
| 1 | Inception report | 5% | 15 days after the commencement date of the contract | Within 10 working days after approval of the report and timetable by Client |
| **Final detailed design**  |
| 1 | Final detailed design for 5 schools  | 8 % | 2 months after the commencement of the activity | After receiving a positive conclusion from the State expertise and approval from authorized organizations and the Client. |
| 2 | Final detailed design for 5 schools  | 8 % | 3 months after the commencement of the activity | After receiving a positive conclusion from the State expertise and approval from authorized organizations and the Client. |
| 3 | Final detailed design for 5 schools  | 8 % | 3.5 months after the commencement of the activity | After receiving a positive conclusion from the State expertise and approval from authorized organizations and the Client. |
| 4 | Final detailed design for 5 schools  | 8 % | 4 months after the commencement of the activity | After receiving a positive conclusion from the State expertise and approval from authorized organizations and the Client. |
| 5 | Final detailed design for 5 schools  | 8 % | 4.5 months after the commencement of the activity | After receiving a positive conclusion from the State expertise and approval from authorized organizations and the Client. |
| 6 | Final detailed design for 5 schools  | 8 % | 5 months after the commencement of the activity | After receiving a positive conclusion from the State expertise and approval from authorized organizations and the Client. |
| 7 | Final detailed design for 5 schools  | 8 % | 5.5 months after the commencement of the activity | After receiving a positive conclusion from the State expertise and approval from authorized organizations and the Client. |
| 8 | Final detailed design for 5 schools  | 8 % | 6 months after the commencement of the activity | After receiving a positive conclusion from the State expertise and approval from authorized organizations and the Client. |
| 9 | Final detailed design for 5 schools  | 8 % | 6.5 months after the commencement of the activity | After receiving a positive conclusion from the State expertise and approval from authorized organizations and the Client. |
| 10 | Final detailed design for 5 schools  | 8 % | 7 months after the commencement of the activity | After receiving a positive conclusion from the State expertise and approval from authorized organizations and the Client. |
| 11 | Final detailed design for 8 schools  | 5 % | 8 months after the commencement of the activity | After receiving a positive conclusion from the State expertise and approval from authorized organizations and the Client. |
| 12 | Author’s supervision during construction | 10 % |  | After completion the construction of 58 schools |
|  | **Total (58 schools)** | **100%** |  |  |