Tender# KBL0035 - SCOPE OF WORK
For
Engineering Consultancy/Engineering Services Company

About Mercy Corps

Mercy Corps is a leading global organization powered by the belief that a better world is possible. In disaster, in hardship, in more than 40 countries around the world, we partner to put bold solutions into action — helping people triumph over adversity and build stronger communities from within. Now, and for the future. Mercy Corps has been working in Afghanistan continuously since 1986. Presently, Mercy Corps is working in ten provinces in Afghanistan with a portfolio of programs aimed at promoting improved prosperity for Afghan citizens through agri-business, natural resources management, youth vocational skills and deployment of renewable energy. These four strategic pillars support livelihoods, increasing food security, access to financial services and strengthening the private sector, civil society and government institutions.

Program Summary

The SUN (Stabilization in Urban Neighborhoods) program is a 24-month initiative with the goal to stabilize urban neighborhoods in Kabul through implementation of a participatory, community-led approach to community development in 7 districts. The program will work to increase social cohesion in Kabul, specifically through targeting the participation of young people in decision-making and through supporting community-driven socio-economic development. Forming Local Action Groups, local volunteer committees in collaboration with community members will identify local development priorities and support implementation of local projects such as renovation of community spaces, supporting local businesses which benefit the community, as well as basic services infrastructure in line with existing governmental plans. Making use of a new tech platform, SUN will be a fast moving, high-impact program reaching youth in Kabul in new and innovative ways working on peaceful social development and opening up future prospects for youth of the country.

The SUN program will utilize wherever possible the resources of local engineering firms to be contracted under a master services agreement. This document will identify the type of services required to select a shortlist of candidates for the engineering design master services agreement.

The following design services are potentially will be needed for SUN according to its nature of sub-projects:

- Buildings: These may be schools, health clinics, housing, and sport facilities/halls. It is expected that structures will be a maximum of 3 stories and must address all local site constraints including but not limited to earthquakes, wind and snow loads. It is expected that the building will be of concrete frame construction and follow local design examples by governing authorities when available.
- Roads - Roads will be 1. asphalt paved on a base of compacted gravel or 2. compacted gravel on a shaped earth foundation. 3. Concrete pavements, Storm drainage and other typical appurtenances may be included
- Bridges - Bridges will be constructed with span from 0.5 m to 12 m and be able to support a maximum of 30 Ton. It is expected the bridges will be of concrete construction.
- Solar systems - solar systems with sizes ranging from 1 KW to 50 kW will be designed and installed. Battery storage will be required in some cases.
- Recreation facilities - Facilities will include parks, playgrounds, sportfields and playshelters including associated utilities.
- Water supply and/or drainage/sewage systems - Water supply projects may include 1. Wells - hydraulic investigation, well design and testing, wellhead design, piping and mechanical and electrical design, 2. Storage/disinfection - water tanks, foundations and disinfection 3. Piping and appurtenances - including piping form DN 0.5 inch to DN 6 inch, associated valving and meters and vaults,
- Hydraulic structures - May included 1. small dams not exceeding 3 meters in height, 2. canals and offtakes 3. Protection walls 4.Aqueduct 5. Super passage 6. Wash structure

---

SOW for Engineering services company: :

The following information is intended for proposal purposes only; final details of scope and terms and fees will be negotiated upon selection. Mercy Corps reserves the right to divide the final scope of work between more than one Preferred Supplier or Partner, including but not limited to, deleting and/or modifying sites and deliverables.

Project Forecast:

- The Design services company will remain responsible technically for the overall site investigation, data collection, supervising required standard tests, technical specifications designs, drawing, estimation and its safety, legality and liability confirming internationally used standards and donors requirement .
- Estimated design and construction period: Varies (within a tight schedule)
- Project types varies depending on communities need and selection.
- The design may have revisions in case of non conforming the donor requirements or international standards hence the company is responsible for a comprehensive design package acceptable to donor.

Services of the Consultancy/ Design Service Company

1. Support MC in project selection by conducting a quick technical, legal, social and financial feasibility of the projects suggested through communities.
2. Project site technical investigation and topographic survey.

3. Preliminary design (conceptual design approx. 30% if approved then,
4. Final design (approx. 90%) or upgrading existing available 30 % preliminary design of the ministries (in this case stage 3 of preliminary design will be eliminated)
5. Addressing donor comments and finalizing the final design (100%)
6. Upgrading existing designs of the ministries confirming local, international and donor requirements

The purpose of dividing the services into stages is to achieve clarity. However, the requirements in all phases shall be read and interpreted together as works on each stage are necessary to complete projects design according MC and donor requested standards (based on international structural , architectural codes and credible references).

Overall, the consultancy/ design service company shall perform all the required activities and provide all the required services to provide Mercy Corps with safe and economic engineering design and assist Mercy Corps to secure required donor and governmental agencies approval on the design. These services include but not limited to attend meetings, arrange focus group discussions , prepare and deliver presentations, revision in design (If requested by MC or Program donor technical monitoring/consultancy team).

Construction supervision shall be provided and priced separately according to a separate scope of work but is still a part of this master agreement.

1. Feasibility study of the project and project selection Phase

This includes all kinds of required technical,legal environmental, financial and social studies, investigations and analysis required to achieve the project purpose and complete the project design in a safe and economic manner. This also includes site inspection visit with Mercy Corps to check topography, existing structures, related existing utilities and structures including data collection, feasibility study including optional design and community requirement's approach with cost estimate. This stage also includes preparing all required environmental and social studies as required. Deliverables on this stage might include but not limited to submitting initial reports, feasibility drawings or sketches and study results.

2. Project site technical investigation and topographic survey Phase

Once the preliminary design is approved with a rough estimation, in this stage the project site will need a detailed study. This should include geotechnical study, topographic survey, conducting required tests, hydraulic study and project other engineering related data collection for the next phase of final design.

3. PreliminaryDesign Phase

Prepare Preliminary Design Phase documents (usually 30% completion level) consisting of final design criteria, preliminary drawings and architectural layouts, outline specifications, written descriptions of the project, survey investigation, preliminary cost estimates and any other requirements or tests as necessary. MC must approve geotechnical/structural labs and any other third party involved prior to proceeding. Consultant must submit preliminary draft layout design for MC approval. Design option selected from the options identified to be approved in writing by MC. Following this phase, the development of detailed design and tendering documents will be carried out upon MC approval. At this stage, the consultant/ design service company shall provide all required engineering solutions to achieve the design goals in terms of project function, time frame and budget.

4. Final Design Phase

Prepare final design (according applicable structural references and codes) Drawings, Specifications, Work plan and BOQs(excluding prices) indicating the scope, extent, and character of the Work to be performed and furnished by Contractors. The consultant/ design company shall provide all required engineering solutions to achieve the design goals in terms of project function, timeframe and budget including but not limited to performing value engineering and , providing method statements for unusual works. This will also include submitting simple interior design works including but not limited to themes and(3D views and furniture layout if required).

The scope of detailed design shall include sufficient design drawings, calculations and documents. Documents must be submitted along with detailed BOQs and a detailed estimated cost (each activity unit rate analysis)for each project. Consultant/ design company must submit drawings to Mercy Corps at the 90% design stage for review unless otherwise is mentioned in the task order Final design must be approved by MC in writing and drawings must be stamped as "Approved for Construction "by the consultant/ design company. It is the responsibility of the consultant to secure the approvals (by getting the drawings stamped) of any concerned regulatory agency on the final design. The consultant shall make modifications or revisions that might be required within the agreed period.

5. Addressing comments and Complete (100%) final design phase

The design services company will be responsible for all donor or third party comments on final design until acceptance of final design with a 100% progress to be ready for the tendering stage.

Deliverables:

Deliverables for each project must include:

- 3 hard copies of the required documents (such as design calculations, drawings, BOQs, technical specifications, methods of measurements, reports and studies and test and meeting reports)

- 1 soft copy (Including both recent version of CAD-DWG/Civil 3D ,PDF or any other format used for the design package i.g. SAP, ETABS, STAAD PRO etc..).One with MC and donor logo and one without logos
- 5 stamped hard copies, if applicable.
- 1 colored hard copy of 3D views

Pricing and rates:

For each Task Order under the master services agreement, the consultant will submit a financial offer for each project based on the proposed hourly rates and expenses provided in Table 1 below.

Table 1: Hourly rate for proposed personnel

Position	ears of industrial experience	Rate insert (USD)/hour (Tax inclusive)
Senior Engineer	More than10 years	
Junior Engineer	Less than 5 years	
Civil Engineer	5 – 10 years	
Architect	5 – 10 years	
Mechanical Engineer	5 – 10 years	
Electrical Engineer	5 – 10 years	
Hydrologist	5 – 10 years	
Roads Engineer	5 – 10 years	
AutoCAD Draftsman	More than 3 years	
Other Specialists	Project Manager – Water	
	oject Manager – Buildings	
	Project Manager – Roads	
	Contracts and specification Engineer	
	Geotechnical Expert	
	Structural Expert	
	GIS Specialist	
	Environmental Expert	
	Hydrologist - Expert	

As a basis of comparison, applicants shall provide an example breakdown for two expected work products - a two story concrete framed school building (Table 2) and a two- lane asphalt roadway designed for heavy truck traffic (Table 3).

Table 2

#	Required Technical staff	Unit	Working duration / Hrs	Unit wage/$	Total wage/$
1	Surveyor	Engineer	1	1	1
2	Geotechnical tests	Test	1	1	1
3	Architecture	Engineer	1	1	1
4	Design engineer	Engineer	1	1	1
5	Electrical engineer	Engineer	1	1	1
6	Water supply engineer	Engineer	1	1	1
7	Project manager	Engineer	1	1	1
8	Tax and overhead expenses	LS/ %	1	1	1
9	Total cost for one SQM Building design				8

Table 3

#	Required Technical staff	Unit	Working duration / Hrs	Unit wage/$	Total wage/$
1	Surveyor	Engineer	1	1	1
2	Geotechnical tests	Test	1	1	1
3	Architecture	Engineer	1	1	1
4	Design engineer	Engineer	1	1	1
5	Electrical engineer	Engineer	1	1	1
6	Water supply engineer	Engineer	1	1	1
7	Project manager	Engineer	1	1	1
8	Tax and overhead expenses	LS/ %	1	1	1
9	Total cost for design				8

	of 1 kM of road design				

General Notes

- Consultant to attend to any problem during construction stage that is related to design issues and to reply to any clarification raised by MC or by contractors. This includes providing any missing details/sections necessary to complete the works
- Consultant to submit proposed time schedule and workplan for each project.
- Consultant should agree to a confidentiality agreement as per contract agreement with Mercy Corps
- Consultant to agree to deliver the specified Services on time so as to not impeded ongoing works.
- Engineering services company shall be registered with the Ministry of Commerce and industries and each specialist shall have received work permits certificate from the Ministry of Labor and Social Affairs.
- Mercy Corps reserves the right to reject any Services, which are not in conformity with the signed contract and the standards acceptable in Afghanistan.