

REVISED TERMS OF REFERENCE

Procurement of Design & Supervision Firm for Architectural and Engineering Consulting Services for the Renovation & Reconstruction of 158 Health facilities in Flood Affected Districts of KP

A. BACKGROUND TO THE INTERVENTION

The Government of Pakistan intends to improve primary health care services in Khyber Pakhtunkhwa Province through the Khyber Pakhtunkhwa Human Capital Investment Project, Health Component (KP-HCIP-H) funded by the World Bank.

The project's objective is to improve the availability, utilization, and quality of primary healthcare services in selected districts in Khyber Pakhtunkhwa Province (Haripur, Nowshera, Peshawar, and Swabi) in order to ensure the quality of health care and a continuum of services. The project will also support the strengthening of secondary health care facilities and referral systems.

The main project is ongoing but, as the recent rains and the floods have caused enormous destruction of infrastructure, casualties and deaths in many parts of KP Province, the World Bank has decided to use some of the project funds for flood relief purposes.

The floods are the world's deadliest since the 2017 South Asian floods and have been described as the worst in the country's history. Amongst other provinces of the country, Khyber Pakhtunkhwa also witnessed the worst flash floods damaging lives, properties, livestock and infrastructure. The deluge has damaged and destroyed many health facilities in 17 districts of the province hindering health services delivery to people already affected by the torrential monsoon rains.

It appears from preliminary assessments, that a total of 158 health facilities have been affected, and approximately 15 health facilities have been washed away or fully damaged while 143 have been partially damaged. The destruction does however present an opportunity for developing a more rationalized health care delivery system in the affected areas based on essential package of health services and the integration of small units into larger, more efficient ones.

The 158 healthcare facilities that have been affected will therefore be prioritized for fast-track renovation or reconstruction and for this purpose they will be packaged together in 16 packages, each package consisting of 9/10 health facilities.

The Project Management Unit of the KPHCIP Health Component (KPHCIP-H-PMU) therefore requires the services of a qualified and experienced architectural and engineering consultancy firm (the Consultants) to carry out rapid surveys of 158 health facilities in the 17 flood affected districts, to establish what work is required at each facility to either renovate the existing buildings or replace them. The project will also replace all necessary furniture and equipment. 17 flood affected districts are shown in Annex-I

These TORs set out the details of the assignment together with the duties and responsibilities of the Consultants and should form the basis for grading as mentioned in EOI, afterward contract negotiation will be done with technically highest ranked firm as per CQS method. If financial negotiation doesn't succeed with the highest ranked firm, than will proceed as per procurement regulation of WB.

B. QUALIFICATIONS OF CONSULTANTS

The Consultants should have extensive experience (a minimum of ten years) in the design and construction supervision of health facilities and works of a similar nature to those set out in these TORs and should have completed at least 3 projects of similar scale and complexity in the past 10 years. The Consultants should have the required PEC codes and PCATP license/s of individual consultant or firm.

They should have the necessary personnel required to carry out the services and they should have the financial and technical resources required to undertake the assignment.

The Consultants should ensure that adequate resources are available to complete the work within the shortest time possible and shall not engage in any assignment that may place them in the position of not being able to carry out the specific services described in these TORs.

Note: The Consultants shall not, except with the prior approval of the Client sublet the Consultancy Services or any part thereof, to any other agency.

C. OBJECTIVES OF CONSULTANCY

The objective of this intervention is the renovation or replacement where necessary of 158 health facilities partially or totally damaged in the recent floods in 17 districts of Khyber Pakhtunkhwa Province.

The objectives of the Consultancy are to provide rapid assessments of existing facilities, surveying, architectural, engineering, and quantity surveying services for the design, renovation and replacement of the selected health facilities; and to produce architectural and engineering working drawings, specifications and bills of quantities and sub-PC-1s for each contract package as per the Government rules and for the provision of construction management and supervision services during the construction period.

The initial objective is to carry out a rapid assessment of the 158 partially or totally damaged health facilities to establish whether it will be possible and cost-effective to renovate the existing buildings or whether it will be necessary to demolish the existing buildings and construct new ones on the existing site or on a new site.

If it proves necessary to demolish the existing health facility buildings, the Client intends to utilize any appropriate existing architectural designs or if these are not available, the Consultants will produce new designs

for these facilities. One of the first tasks for the Consultants will therefore be to review and revise as necessary any existing designs or produce new designs for the replacement facilities.

The completed facilities must be capable of providing the health services defined by the KP minimum health service delivery package (MHSDP) and essential health service package (EHSP) at the individual locations and the Consultants will be expected to work closely with KPHCIP-H-PMU in achieving this and in providing appropriate and cost-effective designs for any new buildings. The designs should be fit for purpose and should provide an environment conducive for healthcare service provision. The resulting buildings should be safe for their intended use, resilient to earthquakes, floods and other hazards and compliant with all applicable building codes, fire safety provisions and local legal requirements. Emphasis should be placed upon safety, durability, reliability, simplicity and economy in the design and the construction of the facilities while taking into account the climate and local conditions. All buildings should be provided with universal access to their ground floors facilities.

The climate in the 17 districts ranges from very cold winters to extremely hot summers and the design of the renovations and new buildings should accommodate these variations and provide comfortable conditions for staff and patients throughout the year without, if possible, the need for air-conditioning. The carbon footprint of the buildings should be reduced to the minimum and passive climate control measures such as the provision of insulation to roofs, large roof overhangs and verandas to the south sides of buildings to protect windows and walls from the sun and the provision of cross-ventilation to rooms should be utilized in order to reduce solar gains, maximize comfort within the buildings and reduce the load on any necessary air-conditioning systems. All buildings should, if possible, be oriented so that their main elevations face north-south in order to reduce to the minimum their exposure to the sun's rays. In areas prone to flooding, all buildings should be provided with plinths to raise them above any possible flood levels. Tree planting and landscaping should be utilized to provide shade and further protection from the sun to buildings and users. Solar water heaters should be used to provide hot water together with photovoltaic panels to supply electricity. Water conservation measures should be introduced together with rain harvesting and rainwater storage. The designs for the buildings should also reduce the need for maintenance to the minimum.

The Consultants should also take into consideration in their designs, the ongoing global COVID19 crisis and the subsequent need for increased infection control which in these facilities will include, amongst other measures that should be agreed with KP DoH, the provision of good, natural ventilation to all areas.

All 17 districts are in active seismic zones and any existing buildings must be checked to ensure that they meet local regulations for earthquake resistance and that they comply with the requirements of the Building Code of Pakistan in particular the seismic provisions 2007 and the Fire Safety provisions 2016 (available at https://www.pec.org.pk/building_code_pakistan.aspx.) and any new buildings must be designed to meet these regulations. All 17 districts are also in mainly floodplain areas and any existing buildings must be checked to ensure that they meet local regulations for flood resistance and that they comply with the requirements of the

Building Code of Pakistan with regard the flood provisions. (Available at https://www.pec.org.pk/building_code_pakistan.aspx).

D. SCOPE OF SERVICES

The work to be carried out under this consultancy for all of the designated facilities will include assessments and surveys of the sites, services and existing buildings; preparation of sub-PC 1s; designs for renovated and extended buildings and any new buildings that are necessary; cost estimates; architectural and engineering working drawings; specifications and bills of quantities. It will include support to the PMU in the procurement of civil works, and provision of solar power systems and furniture and it will also include supervision of the construction works in whatever number of contracts that are necessary and the signing off of the buildings as complete after the end of the defect's liability periods for each contract.

The consultant will submit work plans (and resource plans) for approval to the KPHCIP-H-PMU. The work plans will also be used to manage any changes to the scope of works which will be approved by the KPHCIP-H-PMU. First work plan will be submitted within 14 days of award of contract and will cover the period to 30th December 2023.

It will be the Consultants' responsibility to ensure that this engagement is managed and completed within the agreed fee and time frame to the required specifications. The Consultants will be required to absorb reasonable client-initiated changes to the designs while remaining within the agreed fee.

The Consultants are to ensure that the designs and the final documentation for all the designated facilities are complete and to the satisfaction of the PMU and any relevant authorities and in accordance with the agreed design briefs.

The Consultants' Quality Assurance and Quality Control Program is to be applied to the documentation of this project and the Consultants' team is to adopt a Computer-Aided Design system facilitating the transfer of information in such a way that the maximum benefit can be derived by all parties.

The Consultancy will be carried out in two phases:

- Phase 1 will include: visits to all of the designated sites and the carrying out of assessments of the buildings in terms of their seismic resistance, and of the sites with regard to their resilience to flooding and other natural hazards; detailed surveys of the sites, services and the buildings selected for renovation and extension; preparation of sub-PC 1s; preparation of detailed drawings of the sites, services and of existing buildings; preparation of designs for the renovations and extensions of existing buildings and for any new buildings; preparation of site works drawings and architectural and engineering working drawings for all buildings; preparation of specifications, bills of quantities and cost estimates and provision of environmental and social screening and impact assessment reports for each site. The

Consultants will also assist the PMU in the preparation of contract documents and in the bidding and evaluation process for the individual construction contracts.

The Phase 1 works will be carried out in accordance with the construction targets, with timelines for each package/milestone as given in Annexure 01. Activities under Phase 1 will be carried out under a lump-sum contract.

- Phase 2 will include: construction management and supervision of the construction works to ensure that the works are carried out in accordance with the contract drawings and specifications and environmental and social management plans including C-ESMPs, on time, within the contract amounts, and to the specified standards. It will also include monitoring the works during the defect's liability period and signing off the buildings at the end of this period. Activities under Phase 2 will be carried out under a time-based contract.

Note: Phase 2 will only go ahead if, after considering the Consultant's preliminary reports, the KPHCIP-H-PMU considers that it will be possible to renovate and if necessary, reconstruct the facilities at the individual sites.

E. ACTIVITIES

PHASE 1: SITE ASSESSMENTS, DETAILED SURVEYS, DESIGNS, DOCUMENTATION, BIDDING & EVALUATION

The activities of the Consultants will include:

Rapid Site and Building Assessments

The Consultants will visit each site and carry out preliminary assessments of the sites and buildings to establish whether it is possible, taking into account the recent floods, to continue to use the site for health facilities. If it is possible to do so, the Consultants should establish whether it is cost-effective to renovate the existing buildings or whether it will be necessary to demolish them in part or in whole and re-build them. If the buildings can be retained and renovated, the Consultants must ensure that the buildings comply with the latest seismic regulations.

If it proves necessary to move the health facility to another site, the Consultants should advise, after consulting the district health authorities, whether a suitable site is available.

The Consultants will report to the KPHCIP-H-PMU on the findings at each site. The KPHCIP-H-PMU will then decide, based upon these assessments, on the sites where it will be possible to renovate the existing buildings; the sites where it will be necessary to demolish and re-build the existing buildings and the sites where it will be necessary to find new sites for the health facilities.

Site, Building, and Services Surveys

The Consultants will then visit each site where it has been agreed that the buildings can be renovated or replaced and where surveys should proceed and carry out comprehensive surveys and prepare site plans showing the site boundaries and the existing buildings together with detailed drawings of the individual buildings. The Consultants will also review the availability and adequacy of the water supply, soil and waste-water facilities, energy supply, etc. Surveys will be carried out such that:

- The information collected for each building to be renovated is in sufficient detail so that any parts of the buildings that require demolition are clearly shown together with the requirements for renovation of walls, floors, roofs, ceilings, doors and windows, electrical and plumbing services, etc. and so that any necessary replanning and re-arrangement of rooms and renovation of the buildings can be carried out.

The Consultants will also carry out an environmental and social screening for each site where the renovation or replacement works will proceed and based on the screening results environmental and social safeguard instruments (ESMPs, impact assessment reports) will be prepared before the start of actual construction activities. The environmental provisions will be made part of the Contract Agreement. Mitigating measures for social issues pertaining to dislocations, conflicts in the community, issues of SEA and harassment by labor etc. will need to be taken into consideration.

Preliminary Reports

The Consultants will prepare a preliminary report for each site where it has been decided that the renovation or replacement works will proceed containing: a description of the site, site conditions and services, assessment of amount of waste present in the form of rubbles and debris, hazardous material from damaged buildings and infrastructure that requires safe disposal, an assessment of the soil bearing capacity and a site layout; floor plans, elevations, sections and descriptions of all existing buildings (with photos) noting any problems, and what work is required to bring them up to an acceptable standard and consultation findings from communities in the vicinity that may be impacted. The reports should also indicate what facilities, based upon the MHSDP and EHSP, are missing and will require new buildings to accommodate them. The site layouts should show the location of any new buildings and any proposed new services such as water supplies, drainage systems, electricity supplies, etc. The reports should include a preliminary cost estimate of the works for each site. The preliminary reports will be used by the KPHCIP-H-PMU in finalizing what renovation and extension work and if necessary, new buildings will be funded at each facility.

Final Reports

After approval of the preliminary reports and final decisions are made by the KPHCIP-H-PMU on what renovations, extensions and new buildings, services, boundary walls, etc. are to be carried out and/or provided

at each site, the Consultants will prepare a final report for each site containing: final site layouts; designs for all of the new buildings and the buildings to be renovated and extended and preliminary cost estimates for the renovation and construction work. The Consultants will prepare an Environmental and Social Management Plan for each site and will submit along with each final report.

Contract Documentation, Preparation of Bids, and Bid Evaluation

When the final recommendations and details for each site have been agreed with the KPHCIP-H-PMU, the Consultants will prepare, considering any comments on the designs and any changes that are requested by the KPHCIP-H-PMU, architectural and engineering working drawings, specifications, and bills of quantities for the new, renovated and extended buildings and site works at each site. The Environmental and Social Management Plan (ESMP) prepared by the Consultants for each site will form part of the bidding documents and provide guidance to the contractors in preparing their C-ESMPs. The Consultants will also prepare final cost estimates for the work at each site.

It should be noted that the work at the various sites will be grouped according to their locations for bidding and contractual purposes. The Consultants will assist the KPHCIP-H-PMU in the bidding process for all the sites and the evaluation of bids.

Services to be provided by the Consultants in Phase 1

The Consultants should note that it is intended to utilize any available and appropriate existing designs for the new facilities otherwise it will be the Consultants' responsibility to prepare new designs keeping in mind all the requirements and standards of health facilities. If existing designs are available, the Consultants will review and update them as necessary.

Architectural Services

The Consultants will provide all necessary architectural services necessary to complete the project including:

- designs for the renovation and extension of existing buildings such that they can provide the standard of service required of them;
- designs for any new buildings that the KPHCIP-H-PMU requires to be constructed at any of the designated facilities;
- site layouts and landscaping as required;
- Working drawings including all necessary detailed drawings and contract documentation

Civil & Mechanical Engineering Services

The Consultants will provide all necessary civil and mechanical engineering services including the design of:

- The site works including roads, paths, retaining walls, boundary walls, etc.;
- Soil and wastewater drainage;

- Storm and rainwater drainage;
- Plumbing installations;
- Water supplies;
- Hot and cold water services
 - Gas installations
 - Fire hydrants, hose reels and fire extinguishers
 - Air-conditioning and ventilation systems
 - Working drawings including all necessary detailed drawings and contract documentation

Structural Engineering Services

The Consultants will provide all necessary structural engineering services including:

- establishing load bearing capacities of the soils at each site.
- advising on excavation, construction, and structural engineering including designs for earthquakes and other disasters;
- Identifying and designing simple and economic structural systems;
- checking workshop drawings prepared by subcontractors or suppliers;
- providing certificates of structural adequacy.

Working drawings including all necessary detailed drawings and contract documentation

Electrical Engineering Services

The Consultants will provide all necessary electrical engineering services including the design of:

- incoming supplies and any high voltage reticulation
- standby power systems, generators and UPS systems
- solar power supplies, lighting and storage systems;
- consumers mains, sub-mains, distribution boards;
- switchboards, earthing, and metering;
- general lighting and power circuits;
- emergency lighting and exit signs;

External and security lighting

- power to specific items of fixed plant and equipment;

IT infrastructure

Fire protection and warning systems

- Lightning protection systems.

Working drawings including all necessary detailed drawings and contract documentation

For Solar power systems, the preference will be to use existing standardized designs and the Consultants will only review and approve these designs.

Quantity Surveying and Procurement Services

The Consultants will provide all necessary quantity surveying services including:

- Preparation of cost estimates based on the latest KP MRS (market rate system).
- preparation of bills of quantities and specifications;
- Preparation of a priced bill of quantities for each facility or contract.

Provision of assistance to the KPHCIP-H-PMU in the preparation of contract documents and the evaluation of contractors' bids.

Environmental and Social Safeguards

The Consultants will carry out environmental and social screenings at each site using the checklist provided in the ESMF and prepare the necessary environmental and social safeguards instruments (ESMPs). The ESMPs will form part of the bidding documents and will provide guidance to the contractors in the preparation of their C-ESMPs.

CONSTRUCTION PHASE: CONSTRUCTION MANAGEMENT & SUPERVISION

The Consultants will be required to supervise the construction of the buildings to ensure that they meet the required cost, schedule, specifications, and ESMP requirements and to certify payments to the contractors. The Consultants should provide for the regular supervision of the construction contracts by qualified personnel (See Key and other Staff below) for the duration of the contract, including the 12 months defect's liability period. The Consultants will be nominated as the contractual Project Manager with the authority and duties as defined in the works contract and will execute all required actions in accordance with the contract.

The Consultants should also allow for: inspections of the buildings at practical completion, periodically during the defect's liability period and at final completion, the preparation of a final account for the contract, and a final report on the implementation/completion of the construction work. If the construction work is delayed or has to be extended for whatever reason, then a mutually agreeable extension to the Consultants' contract will be negotiated.

The activities of the Consultants in the Construction Phase will include, but not be limited to the following:

- Establishing a dedicated Project Management Office for the project in Peshawar District and field offices in the 17 districts in close vicinity to the project sites (for supervision).
- providing adequate and functional facilities for the Field Engineers of KPHCIP-H-PMU in the 17 districts and transport for the Field Engineers as necessary to carry out routine inspections of the works.
- preparing an implementation program before construction starts for all construction activities over the lifetime of the project showing how the construction can be completed within the project period (Note: if the Consultants consider that the construction program cannot be completed within the project period then they must alert the KPHCIP-H-PMU to this fact as soon as possible);
- reviewing the contractors' construction programs;
- preparing a clear environmental, health and safety, and social monitoring plans and reporting program before construction starts;
- Provide guidance to the contractors to prepare their Construction Environmental and Social Management Plans (C-ESMP) for each site and to ensure that these documents are reviewed/finalized by the Consultants and approved by the KPHCIP-H-PMU and the World Bank before the commencement of the works;
- assisting the contractors with the preparation of their quality assurance and quality control documents including the quality management plan, checklists, etc.;
- preparing financial, progress, and other reports as required;
- liaising with the KPHCIP-H-PMU and advising on areas of concern, potential delays, or cost increases;
- maintaining site diaries recording the daily weather conditions, instructions issued to the contractors, problems occurring, deliveries of materials, progress on-site, workers on-site, visitors, etc.;
- checking that the buildings are correctly located and that the works are correctly set out;
- inspecting and supervising the construction works to ensure that the buildings are constructed in accordance with the drawings and specifications and within the contract amount;
- measuring the work as completed;
- supervising the testing of materials as specified in the contract documents and ensuring that the materials used are in accordance with the specifications;
- arranging the testing, commissioning, acceptance, and handover of the works on completion;
- monitoring the progress of the works against the Consultants' implementation program and the construction programs provided by the contractors;
- supervising and reporting on, the implementation of the approved C-ESMPs during construction and providing guidance to the contractors on any necessary corrective actions in the case of non-compliance with the plans;

- advising the contractors on any necessary measures to ensure the completion of the construction works in accordance with their construction programs;
- advising the KPHCIP-H-PMU of any deviations from the contract drawings and documents by the contractors;
- advising the KPHCIP-H-PMU of any likely delays to the construction works;
- chairing site meetings at fortnightly or monthly intervals with representatives of the KPHCIP PMU and the contractors to discuss the progress of the works and any problems;
- preparing and circulating agendas and minutes of all site and other meetings arranged to discuss the progress of the construction;
- advising the KPHCIP-H-PMU on any possible problems or necessary changes as they arise that will incur extra costs and on ways to avoid these costs if at all possible;
- advising the KPHCIP-H-PMU on any possible claims by the contractors or on any other contractual problems arising during the works;
- certifying payments to the contractors in accordance with the contract provisions;
- preparing and submitting to the KPHCIP-H-PMU monthly/quarterly progress reports on the /progress of the works including progress photographs of the works at each site.
- Preparing accurate 'as-built' drawings of the facilities showing the existing building and new building after completion of the works;
- preparing lists of defective and outstanding work at the times of practical completion of the buildings;
- checking the condition of the works at the end of the defect's liability period and signing off the works when any outstanding or defective works have been completed or rectified;
- Issuing a completion certificate stating that the work has been completed in accordance with the designs, specifications and ESMPs and the contract agreement.
- carrying out any other tasks related to the supervision of the works as may be requested by the KPHCIP PMU;
- Preparing maintenance plans and maintenance handbooks for the buildings.

The Consultant will make available a vehicle for the use of the KPHCIP-H-PMU staff and consultants in carrying out routine site inspections, attending site meetings, etc. together with a monthly fuel allowance of 300 liters of fuel.

Note: the written approval of the Client (KPHCIP-H-PMU) as “Employer” is required before the Consultants, designated under the contract as ‘Engineer’ take any action which will change the contract.

F.OUTPUTS

PHASE 1

Preliminary Assessments

The KPHCIP-H-PMU will use the preliminary assessments of the sites and facilities to decide whether to proceed with the works at the individual sites. The assessments should therefore include the Consultants’ opinion as to whether:

- the existing sites can continue to be used for health facilities or whether due to the danger of further flooding, new sites must be found
- the existing sites are in danger from other natural hazards and should not continue in use
- the existing buildings comply with the latest seismic regulations and whether any buildings or parts of buildings require demolition

The KPHCIP-H-PMU will decide, based upon these assessments, on the sites on which to proceed with the site and building surveys and preliminary proposals.

Preliminary Reports

Preliminary reports will include:

- survey drawings of the sites showing the boundaries, the position of existing buildings, fences, roads, paths, existing power lines, water, soil, and waste pipes, septic tanks and soak ways, etc. to a scale of at least 1:200 and showing the north point.
- Survey drawings of any existing buildings to be renovated and/or extended showing the plans, elevations, sections, and any other information necessary for the design and working drawings and bills of quantities for the proposed renovations.
- Site layout drawings showing the location of any new buildings, preliminary landscaping proposals, and any new services that may be required.
- Preliminary plan, sections, and elevations of any proposed new buildings.

The reports should also include information on:

- The availability of water and electricity on the sites and the condition of any service lines, septic tanks, soak ways, storm drains, and any facilities, etc.
- A preliminary cost estimate for the works to be carried out. The reports should also include the results of the environmental and social safeguard screenings carried out at each site.

- Assessment of amount of waste in the form of rubbles and debris, hazardous material from damaged buildings and infrastructure that requires safe disposal,

Final Reports

Final reports will include for each site, architectural and engineering working drawings at scales necessary to clearly show the contractors the work that is required, specifications and bills of quantities for all buildings, site works, etc. including:

- site layouts showing the new and renovated/extended buildings, roads and parking, major civil works, landscaping, and any major external elements;
- foundation plans and details for new and extended buildings;
- general floor plans for new, renovated, and extended buildings showing room arrangements, room areas, floor levels, and any major internal design elements;
- electrical, mechanical, plumbing, and sanitation layouts and details;
- details of all fixtures and fittings;
- elevations showing the general arrangement of the building forms, windows, and any major design elements to the facades;
- cross-sections for all buildings;
- roof and ceiling plans;
- construction details;
- schedules of internal and external materials, finishes, and colors;
- structural, civil, mechanical, and electrical engineering drawings and details;
- detailed specifications for all materials, fixtures, and fittings;
- Bills of quantities including a priced bill of quantities.
- preliminary cost estimates to be agreed with the PMU and the World Bank.
- Sub-PC-1s for each contract package.

The final reports should contain soil investigation reports and details of medical and general waste management facilities (hazardous and non-hazardous) to be provided at each site.

The final reports should also include the necessary site specific environmental and social safeguards instruments (ESMPs) and waste management plans.

CONSTRUCTION PHASE

Construction Management and Supervision

Outputs will include:

- Monthly/quarterly progress reports;
- site meeting minutes;
- Environmental, health & safety, and social safeguards monitoring, compliance and closeout reports;
- test results for all materials;
- monthly certificates of payment;
- a final completion report, including photos and a full set of 'as-built drawings;
- checks of and commissioning of all buildings and systems;
- final accounts;
- lists of defective or outstanding work at practical completion;
- lists of defective or outstanding work at the end of the 12 months defect's liability period and
- Signed-off certificates of completion upon final completion of the works.
- A complete set of contract management files on completion of works

Maintenance of Facilities

When the buildings are completed, the KPHCIP-H-PMU must be made aware of what is required to operate and maintain them in good condition.

The Consultants will therefore produce operation and maintenance plans for all the buildings and equipment and simple maintenance manuals to be used in the maintenance of the buildings.

Outputs will include:

- maintenance plans and annual budget requirements for buildings and equipment.
- Maintenance manuals for buildings and equipment.

G. DELIVERABLES

3 hard copies and 1 electronic copy of all documents should be provided to the KPHCIP-H-PMU.

H. REPORTING

The Consultants will report to the Project Director of the KPHCIP-H-PMU through Procurement Specialist.

I. STAFFING REQUIREMENTS

Phase 1: Key Staff

The Consultants should provide the following key staff (more than one of each of the key staff may be required to complete the work within the required timeframe) together with any additional staff necessary to complete the work defined under Phase 1 of these TORs.

S.No	Personnel Description	Marks allocated	Qualification & Experience
1.	Key Staff	Total 50 Marks	As mentioned at Annex-IV of this documents
2.	Team Leader/ Structural Engineer	10	
3.	Senior Architect	7	
4.	Structural Design Engineer	7	
5.	Geotechnical Engineer/Material Engineer	6	
6.	Contract Specialist/Procurement	5	
7.	Electrical Engineer	5	
8.	Resident Engineer	5	
9.	Mechanical Engineer	5	
	Other Staff (Non-Key Experts)		As mentioned at Annex-IV of this documents
10.	Quantity Surveyor	No marks being non-key staff	
11.	CAD Operator		
12.	Social Safeguard officer/Specialist		
13.	Environmental officer/Specialist		
14.	Office Supporting Staff		

Note: For marks allocation as per weightage mentioned in EOI, the above mentioned table of Phase-1 for key staff marking as per EOI shall be considered.

Phase 2: Key Staff

The Consultants' key staff who worked on Phase 1 should be available to work as necessary on Phase 2. The additional staff as set out below will be required for Phase 2 of the work.

Note: The Consultants will ensure that all relevant team members are retained during the 12 months defects liability period to ensure that they are available for any necessary inspections, etc. The technical proposal will need to include information within the work plan regarding what is proposed for the defect's liability period.

Key Staff				
S. No	Personnel Description	Qualification & Experience	Unit	Input
1.	Team Leader/ Project Architect	Attached at Annex-4	Monthl y	Full time
2.	Material Engineer		Monthl y	Full time
3.	Electrical Engineer		Monthl y	Full time
4.	Field Engineer/Inspector		Monthl y	Full time

5	Assistant Resident Engineers	Monthl y	Full time
Other Staff (Non-Key Staff)			
6	Quantity Surveyor	Monthl y	Full time
7	Health, Safety & Environmental Engineer/Officer/Social Officer		
8	CAD Operator	Monthl y	Full time
9	Office Supporting Staff	Monthl y	Full time

REVISED TORS, AFTER PRE-CONFERENCE MEETING

Preconstruction Phase

Overall, the Pre-construction phase activities for the Healthcare Facility in the:

- In First quarter of 2023, must complete all design, drawings, BOQs, PC-1 and bidding documents (sub-categorization can be done).

Further specific milestones are defined below:

Milestone-I: Completion of standardized (typical) designs and cost estimation for rehabilitation works, and contract packages within Ninety days.

There managing milestones for the pre-construction phase are listed below:

Table1

Activities/Deliverables	Milestone targets (days)		
	First Phase	2 nd Phase	3 rd Phase
Surveys and preliminary reports	5 packages	5 Packages	6 Packages
Final reports and contract documents	30 days	30 days	30 days

Construction Phase

Yearly targets (numbers) for the construction phase are given in the following table.

Table2

Departmental Flood Response Plan 2022						
Damages Report assessment by department						
S#	Dept	Damages reported District Wise	Nomenclature Infra Damage (Duly verified by Department)		Total verified damage reported	Remarks
1	Abbottabad		1	CD Harikhatar	DHO Abbottabad	Completely Damaged
			2	CD Chehr		Completely Damaged
			3	CD Khanna		Partially Damaged
			4	CD Chandu Maira		Completely Damaged
			5	CD Kothwal		Partially Damaged
			6	CD Kanthiall		Partially Damaged
			7	CD Sialkot		Completely Damaged
			8	BHU Harlan		Partially Damaged
			9	BHU Banda Pir Khan		Partially Damaged
			10	BHU Kalu Maira		Partially Damaged
2	Shangla		1	RHC Karora	DHO Shangla	Partially Damaged
			2	BHU Towa		Partially Damaged
			3	CD Mian Kalay		Partially Damaged
			4	CD Ganshall		Partially Damaged
			5	BHU Shahlizara		Partially Damaged

3	Nowshera	1	BHU Mohib Banda	DHO Nowshera	Partially Damaged
		2	BHU Pir Sabaq		Partially Damaged
		3	BHU Banda Mullahan		Partially Damaged
		4	RHC Pirpai		Partially Damaged
4	D. I. Khan	1	BHU Rasheed	DHO D.I Khan	Completely Damaged
		2	BHU Mat		Completely Damaged
		3	BHU Rori		Completely Damaged
		4	Type D Hospital Parova		Partially Damaged
		5	RHC Kirri Shamoza		Partially Damaged
		6	BHU Saggu		Partially Damaged
		7	BHU Jabbar wala		Partially Damaged
		8	BHU Shorkot		Partially Damaged
		9	BHU Budh		Partially Damaged
		10	BHU Fateh		Partially Damaged
		11	BHU Darabankhurd		Partially Damaged
		12	BHU Marha		Partially Damaged
		13	BHU Mangal		Partially Damaged
		14	BHU Mirbazi		Partially Damaged
		15	BHU Takwarah		Partially Damaged
		16	CD Roman Kot		Partially Damaged
		17	CD Girsal		Partially Damaged
		18	CD Diyal		Partially Damaged
		19	CD GaraBakhtiar		Partially Damaged
		20	CD GaraMuhabat		Partially Damaged
		21	CD Hatala		Partially Damaged
		22	SHC KotTagga		Partially Damaged
5	Dir Lower	1	RHC Khal	DHO Lower Dir	Partially Damaged
		2	RhCGulabad		Partially Damaged
		3	Cat D Hospital Talash		Partially Damaged
		4	BHU Pingal		Partially Damaged
		5	BHU Tawda China		Partially Damaged
		6	BHU Luqman Banda		Partially Damaged
		7	BHU Otala		Partially Damaged
6	Dir Upper	1	Category "C" Hospital Wari	DHO Upper Dir	Partially Damaged
		2	Category "D" Hospital Patrak		Partially Damaged
		3	RHC NehagBandi		Partially Damaged
		4	RHC Sheringal		Partially Damaged
		5	BHU Guwaldai		Partially Damaged
		6	BHU Doag Dara		Partially Damaged
		7	BHU Barikot		Partially Damaged
		8	BHU Qulandi		Partially Damaged
		9	BHU Dobando		Partially Damaged
		10	BHU Hayagay		Partially Damaged

7	Tank	11	BHU Nasir Abad	DHO Tank	Partially Damaged
		12	BHU Daskor		Partially Damaged
		13	BHU Darora		Partially Damaged
		14	CD Usheri		Partially Damaged
		15	CD Beyar		Partially Damaged
		1	SHC Daraki		Partially Damaged
		2	BHU Mumraiz Pathan		Partially Damaged
		3	BHU Kot Allah Dad		Partially Damaged
		4	BHU Cheena		Partially Damaged
		5	BHU Ranawal		Partially Damaged
		6	BHU GaraBalouch		Partially Damaged
		7	BHU Chadhara		Partially Damaged
		8	BHU KOt Musa		Partially Damaged
		9	BHU Dabara		Partially Damaged
		10	BHU GaraShada		Partially Damaged
		11	BHU Sheikh Sultan		Partially Damaged
		12	BHU Kot Hakim		Partially Damaged
		13	BHU CheesanKach		Partially Damaged
		14	BHU Kirri Haider		Partially Damaged
		15	BHU Shah Alam		Partially Damaged
		16	BHU Pai		Partially Damaged
		17	RHC Gomal Bazar		Partially Damaged
		18	CD Jaffar Abad		Partially Damaged
19	BHU Shadi Khel	Partially Damaged			
20	BHU andari	Partially Damaged			
21	BHU Warooki	Partially Damaged			
22	Type D Hospital Amma Khel	Partially Damaged			
23	RHC Gul Imam	Partially Damaged			
8	Swat	1	BHU Mashkomai	DHO Swat	Partially Damaged
		2	BHU Bara Samai		Partially Damaged
		3	BHU Rahatkot		Partially Damaged
		4	RHC Devlai		Partially Damaged
		5	BHU Qamber		Partially Damaged
		6	BHU Islampur		Partially Damaged
		7	BHU Chail		Partially Damaged
		8	BHU Odigram		Partially Damaged
		9	BHU Tamgha		Partially Damaged
		10	BHU Gabral		Partially Damaged
		11	CD Parrow		Partially Damaged
		12	RHC Khazana		Partially Damaged
		13	BHU Sher Palam		Partially Damaged
		14	CD Nawa Kalay		Partially Damaged
		15	CD Osho		Partially Damaged
9		1	TBC Ghazi Abad		Partially Damaged

		Kolai Pala	2	BHU Sharied	DHO KolaiPalas Kohistan	Partially Damaged
		Kohistan	3	BHU Ber Sheryal	Kohistan	Partially Damaged
10		Chitral Upper	1	BHU Khoth	DHO Chitral Upper	Completely Damaged
			2	BHU Sangush		Partially Damaged
			3	BHU Kosht		Partially Damaged
			4	CD Riri		Partially Damaged
			5	CD Lonkow		Partially Damaged
			6	CD Kushum		Partially Damaged
11		Kurram	1	CD Mulla Bagh	DHO Kurram	Partially Damaged
12		Chitral Lower	1	BHU Nagar	DHO Chitral Lower	Partially Damaged
			2	BHU Tar (Shishikoh)		Partially Damaged
			3	RHC Kaghuzi		Partially Damaged
			4	BHU Goboore		Partially Damaged
			5	BHU Moroi		Partially Damaged
			6	BHU Bumborate		Partially Damaged
			7	BHU Shoghore		Partially Damaged
			8	CD Pursat(Shishikoh)		Partially Damaged
			9	BHU Kesu		Partially Damaged
13		Karak	1	Type C Hospital City Karak	DHO Karak	Partially Damaged
			2	DHO office Karak		Partially Damaged
			3	CD Kurd Sharif		Partially Damaged
			4	BHU Mona Khel		Partially Damaged
			5	BHU Makoori		Partially Damaged
			6	BHU Khurram		Partially Damaged
			7	BHU Ghundi Mir Khan Khel		Partially Damaged
			8	RHC ShanawaGudikhel		Partially Damaged
			9	BHU DabliLawagher		Partially Damaged
			10	BHU Shamshaki		Partially Damaged
			11	BHU EsakChountra		Partially Damaged
			12	BHU Kando Khel		Partially Damaged
			13	CH Terri		Partially Damaged
14		Charsadda	1	CD Agra	DHO Charsadda	Partially Damaged
			2	BHU Gul Abad		Partially Damaged
			3	BHU Kot		Partially Damaged
			4	CD Kharakai		Partially Damaged
15		LakkiMarwat	1	Cat D Hospital Titter Khel	DHO LakkiMarwat	Partially Damaged
			2	BHU Hati Khan Langer Khel		Partially Damaged
			3	BHU Abdul Khel		Partially Damaged
			4	BHU Shahbaz Khel		Partially Damaged
			5	BHU Gabar Bagh		Partially Damaged
			6	CD Kheru Khel		Completely Damaged
			7	CD Dalo Khel		Completely Damaged

			8	CD Rabnawazwargari		Partially Damaged
			9	CHC Nadar Khan Farid khel		Partially Damaged
16	Kohistan Lower		1	BHU MoniKhailbela	DHO Kohistan Lower	Completely Damaged
			2	BHU Mujgali		Partially Damaged
			3	BHU Banil Qala		Completely Damaged
			4	CD Semo Dara		Completely Damaged
			5	RHC Ranolia		Partially Damaged
			6	BHU DubairBala		Partially Damaged
			7	BHU Jag		Completely Damaged
17	Kohistan upper			BHU Jashoi	DHO Kohistan Upper	Partially Damaged
				BHU Thoti		Completely Damaged
				CD Bari SiglooRichaw		Partially Damaged
				BHU Baja		Partially Damaged
				BHU Razika		Partially Damaged
Total						

Note: For Kailash people a specific indigenous people policy framework is required, therefore, the activity will be started once all pre-requisite will be completed as per indigenous people policy.

Annexure02

Check list of Likely Environmental and Social Impacts of Sub-projects screening

This Form is to be used by the Engineers/Environmental and Social Focal Persons (ESFPs) in screening subproject applications/proposals for which ESMPs are not required. This check list is designed to cover social and environmental impacts of upgradation /rehabilitation of facilities.

Note: This form and accompanying documentation to be maintained in the office of the implementing agency/PMU

- a. Name of Sub-project:
- b. EMIS Code:
- c. Sub-project location:
- d. Sub-project objective:
- e. Sub-project Location:
- f. Infrastructure to be rehabilitated/upgraded:

<u>Issues</u>	<u>Yes</u>	<u>No</u>	<u>Mitigation Measures proposed</u>	<u>Monitoring for compliance</u>
Zoning and Land Use Planning				
Will the sub project involve significant land disturbance or site clearance?				
Will the sub project land be subject to potential encroachment by urban use?				
Water and Soil Contamination				
Will the subproject require large amounts of raw materials or construction materials?				
Will the sub project generate large amounts of residual wastes, construction material waste or cause soil erosion?				
Will the subproject result in potential soil or water contamination (e.g.,from oil,grease And fuel from equipment yards)?				
Will the sub project lead to contamination of ground and surface waters				
Will the sub project involve the use of chemicals or solvents?				
Will the subproject lead to the destruction of vegetation and soil in the right-of-way, Borrow pits, waste dumps, and equipment yards?				
Will the sub project lead to the creation of stagnant water bodies in borrow pits, quarries, etc., encouraging for mosquito breeding and other disease vectors?				

Noise and Air Pollution Hazardous materials				
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Will the subproject increase the levels of harmful air emissions?				
Will the subproject increase ambient noise levels?				
Will the subproject involve the storage, handling or transport of hazardous substances?				
Will the subproject involve handling, storage or transport of asbestos?				
Fauna and Flora				
Will the subproject involve the disturbance or modification of existing drainage channels (rivers, canals) or surface water bodies (wetlands, marshes)?				
Will the subproject lead to the disruption/destruction of wildlife habitat due to noise-related problems?				
Destruction/Disruption of Land and Vegetation				
Will the subproject lead to unplanned use of the infrastructure being developed?				
Will the subproject lead to erosion of lands?				
Cultural Property				
Will the proposed project constrain access to cultural sites for the communities?				
Will the subproject have an impact on Archaeological or historical sites, including historic urban areas?				
Will the subproject have an impact on religious monuments, structures and/or cemeteries?				
Social Disturbance				
Will the subproject involve demolition of existing structures?				
Will subproject cause disturbance to ongoing health facility activities?				
Will the subproject lead to induced settlements by workers and others causing social disruption?				
Will the subproject lead to environmental and social disturbance by construction camps?				
Is the proposed project likely to negatively affect the income levels or employment Opportunities of vulnerable groups?				
Social Equity and Equality				

Would the proposed subproject have environmental and social impacts that could affect vulnerable groups including Refugees and IDPs?				
Is the subproject likely to negatively impact women and girls?				
Is the proposed subproject likely to directly or Indirectly increase social inequalities now or in the future?				

Will the proposed project have variable Impacts on women and men, different ethnic groups, social classes?				
Have there been challenges in engaging women and other certain key stakeholder groups in preliminary discussions for this project?				
Is the project likely to attract forced labor and/or child labor?				
Demographics				
Is project likely to cause stress on available services in the project area (e.g. health facilities,, water supply)?				
Would the proposed project result in private Land acquisition, impacts on livelihoods, or involuntary resettlement of populations?				

REVISED TORS, AFTER PRE-CONFERENCE MEETING

Construction Site issues

Does the subproject require land acquisition? *[Note: Fill in The land acquisition form if YES]Refer to Resettlement Action Plan in ESMF				
Is the subproject located on land with contested ownership?				
Is the subproject located in an area with security problems?				
Is the subproject located in an area with designated natural reserves?				
Is the subproject located close to ground water sources, surface water bodies, water courses or wetlands?				
Is the project located in an area where IDPs/refugees are temporarily settled?				
Is the subproject located near a waste dump?				
Does the subproject have access to potable water?				
Is the subproject located in an area with a waste water network?				
Is the subproject located far (1-2kms) from accessible roads?				

Land Acquisition and Resettlement Screening Checklist

SECTION1:PotentialImpacts	Yes	No	Expected	Remarks
Does the sub-project involve any physical construction work, i.e. rehabilitation, reconstruction or new construction? Specify in “remarks” column.				
Does the sub-project involve impacts on land, assets and people, if “Yes” try to quantify the impacts and check following items? If “No” impacts, explain the situation in “remarks “and move to section2.				
Land:				
Use of Government land being owned by the target healthcare facility				
Use of Government or state owned land free of occupation (agriculture or settlement)				

Use of private or communal land voluntarily donated for the sub-project. If “Yes” please use Voluntary Land Donation (VLD) Framework				
Use of private or communal land acquired by for the sub-project If “Yes”, please use Process and Outline of Resettlement Action Plan in ESMF)				
Others (specify in “remarks”).				
Land-based assets:				
Impacts on residential structures				
Impacts on commercial structures (specify in “remarks”)				
Impacts on community structures (specify in “remarks”)				
Impacts on agriculture structures (specify in “remarks”)				
Impacts on public utilities (specify in “remarks”)				
Others (specify in “remarks”)				
Agriculture related impacts:				
Impacts on crops and vegetables (specify types and cropping area in “remarks”)				
Impacts on Trees (specify number and types in “remarks”).				
Others (specify in “remarks”).				
Affected Persons(APs):				
Number of APs				
Males				
Females				
Titled land owners				
Tenants and share croppers				
Lease holders				

REVISED TOPS, AFTER PRE-CONFERENCE MEETING

SECTION 1: Potential Impacts	Yes	No	Expected	Remarks
Agriculture wage laborers				
Encroachers and squatters (specify in remarks column).				
Vulnerable APs (e.g. women headed households, minors and aged, orphans, disabled persons and those below the poverty line). Specify the number and vulnerability in “remarks”.				
Others (specify in “remarks”)				
SECTION 2				
Others:				
Are there any other minority groups affected by land acquisition or project activities? If “Yes” specify in “remarks”				
Minority groups (specify in “remarks”). Describe nature of impacts				

REVISED TORS, AFTER PRE-CONFERENCE MEETING

Sample Assessment checklist

Sample Physical Survey report (Technical)

Name of Facility _____ Type: BHU: _____ RHC: _____ Cate: _____

EMIS Code: _____ District: _____

Site coordinates N: _____ E _____ Elevation: _____

1 Status of old building and requirement for future intervention

Type of existing structure:

Temporary/Kachha /Mud Structure _____ Permanent/Pakka/RCC _____ Semi-Permanent/TR Girder _____

Shape of proposed site: Square _____ Rectangular _____ Irregular _____**Size of proposed site:** Length: _____ Width: _____ Area(ft): _____**Level of proposed site:** Plain: _____ Depression: _____ High: _____ Rain water drain out from building: Yes: _____ NO: _____**Type of soil on proposed site:** Ordinary _____ Hard _____ Compacted Gravel _____ Soft rock _____ Water logging soil _____**Access to proposed site:** Kacha Road _____ Pakka Road _____ Any other _____**Dismantling required:** Yes: No: _____ If yes

What kind of structure will be dismantled: Mud _____ Apprx. Quantity _____ Bricks _____ Apprx. Quantity _____ Concrete _____ App. Quantity _____

Does existing building have boundary wall? Yes: _____ No: _____ If Yes Type ofexisting boundary wall: Kacha _____ Pakka _____
Condition of existing boundary wall: Good: _____ Needs repair: _____ Needs to be constructed _____ Needs to be painted: _____
If new boundary wall is required, Type of boundary wall for proposed site: Kacha: _____ Pakka: _____**Is there main gate for the building:** (If Yes) Yes: _____ NO: _____

What is the condition of existing facility gate: Good: _____ Needs repair: _____ Needs to be painted: _____

Needs to be replaced with the new one: (If Yes) Yes: _____ NO: _____

What will the size of gate? Height (in feet) _____ Width (in feet) _____

Tick the facilities that are present in existing: Staff Room _____ MS Room _____ Multi-purpose hall _____ IT Lab _____ Laboratory Room _____ Multipurpose area _____ Clerk office _____ Security Guard room _____**Tick the facilities that are additionally required to be constructed at proposed site:**

Staff Room _____ MS Room _____ Multi-purpose hall _____ IT Lab _____ Laboratory Room _____ Multi purpose area _____ EC Room _____ Side room _____ Clerk office _____ Security Guard room _____

2 Availability of basic utilities at proposed site

	<p>Does building have provision of electricity(If Yes):Yes _____ No __, Type WAPDA _____ Solar _____ Does it need any repair(If Yes):Yes ___ No _____ Provision: Yes _____,No _____ Is it possible to provide electricity connection to proposed site: Yes _____ No _____</p> <p>Others: _____</p>
	<p>Does existing building have provision of gas pipeline (If Yes):Yes ___ No:___ Location of gas pipe line for proposed site: Under the site Yes _____ No _____ Pipeline near the site(If Yes)Yes _____ No _____ Distance of main pipeline from proposed site(in feet) _____ Is it possible to provide gas connection to proposed site: If no Yes ___ No _____ Other: _____</p>
	<p>Is PTCL cable passing through the proposed site: Yes _____ NO: _____</p>
4	Status of previously existing toilets

	<p>Type of toilet existing toilets has:</p> <p>1. Soakage pit: Yes: _____ No: _____ NA _____ Septic tank: Yes _____, No _____ Total Number of Toilet: _____ Number of Functional toilet _____</p> <p>Number of Nonfunctional _____ Ventilators made: Yes _____ No: _____ On raised platform:(If Yes) Yes ___ No _____ Ramp constructed:(If Yes)Yes ___ No: _____ Type of ramp: Steep/Aligned/appropriate _____</p> <p>Other: _____ Reason of nonfunctional dry pit toilet: Mention reason-----</p>
	<p>2. Flush Tank: Yes: _____ No: _____ NA _____ Total Number of Toilet: _____ Number of Functional toilet _____</p> <p>Number of Nonfunctional _____ Ventilators made: Yes _____ No: _____ On raised platform:(If Yes) Yes _____ No _____ Ramp constructed:(If Yes)Yes ___ No: _____ Type of ramp: Steep/Aligned/appropriate _____ Other: _____</p> <p>Reason of nonfunctional dry pit toilet: Mention reason-----</p>
	<p>3. Staff Toilet _____ Number of Functional toilet _____ Number of Nonfunctional _____ Ventilators made: Yes N: _____ On raised platform:(If Yes)Yes _____ No _____ Ramp constructed:(If Yes)Yes ___ No: _____ Type of ramp: Steep _____ Aligned/appropriate _____ Hand rail fixed with ramp: Yes _____ NO: _____</p> <p>Other: _____</p> <p>Reason of nonfunctional staff toilet: _____</p>

5	Construction of additional toilets at proposed site
	<p>Number of additional toilet required for the proposed site: _____</p> <p>Type of toilet for the Proposed site: Septic tank: yes _____, No _____ soak age pit: Yes _____ NO _____ flush tank: Yes _____</p> <p>staff: Yes _____, No _____</p> <p>Size of Toilet _____ Length(in feet) _____ Width(in feet) _____ Height(in feet) _____</p> <p>Total Numbers: _____</p> <p>Complete Toilets including all facilities (flooring, tiling, lighting, WCs, painting, ramp etc) Water storage tank for building required: Yes _____ No _____</p>

6	Status of existing hand washing area and requirement for future intervention
	Is hand washing area available:(If Yes)Yes _____ NO: _____ Is it Functional(If No)Yes _____ NO _____ What type of maintenance is required for making it functional: Needs Minor repair _____ Needs to be constructed again _____ Other: _____
7	Detail of Works/Renovation for Existing Rooms(only in rehab works are in scope
	Number _____ of _____ rooms with _____ windows _____ Number of rooms with emergency exit _____ Number of nonfunctional rooms _____ Reason of nonfunctional rooms _____
	Room No 1: Size _____ Length _____ Height _____ Width _____ Distemper/Weather Coat required: Yes _____ NO _____ Total Number of Doors _____ Number of doors need to replace _____ Number of doors require repair _____ Total number of windows _____ Number of Windows need to replace _____ Number of Windows require repair _____ Total number of ventilators _____ Number of ventilators need to replace _____ Number of Ventilators require repair _____ Total number of lights required _____ Number of Fans Required _____ Flooring required Yes_NO: _____ Plaster required Yes: _____ NO: _____ Roof Screeding required Yes _____ NO _____ Number of Lights required _____ Number of Fans Required _____ Flooring required Yes_NO: _____ Plaster required Yes: _____ NO: _____ Roof Screeding required Yes _____ NO _____
	Room Number 2
	Room Number 3 Size _____ Length _____ Height _____ Width _____ Distemper/Weather Coat required: Yes _____ NO _____ Total Number of Doors _____ Number of doors need to replace _____ Number of doors require repair _____ Total number of windows _____ Number of Windows need to replace _____ Number of Windows require repair _____ Total number of ventilators _____ Number of ventilators need to replace _____ Number of Ventilators require repair _____ Number of Lights required _____ Number of Fans Required _____ Flooring required Yes_NO: _____ Plaster required Yes: _____ NO: _____ Roof Screeding required Yes _____ NO _____

<p>RoomNumber4</p> <p>Size _____ Length _____ Height _____ Width _____</p> <p>Distemper/Weather Coat required: Yes _____ NO _____</p> <p>Total Number of Doors _____ Number of doors need to replace _____ Number of doors require repair _____</p> <p>Total number of windows _____ Number of Windows need to replace _____ Number of Windows require repair _____</p> <p>Total number of ventilators _____ Number of ventilators need to replace _____ Number of Ventilators require repair _____</p> <p>Number of Lights required _____ Number of Fans Required _____</p> <p>Flooring required Yes_NO: _____ Plaster required Yes: _____ NO: _____ Roof Screeding required Yes _____ NO _____</p>
<p>RoomNumber5</p> <p>Size _____ Length _____ Height _____ Width _____</p> <p>Distemper/Weather Coat required: Yes _____ NO _____</p> <p>Total Number of Doors _____ Number of doors need to replace _____ Number of doors require repair _____</p> <p>Total number of windows _____ Number of Windows need to replace _____ Number of Windows require repair _____</p> <p>Total number of ventilators _____ Number of ventilators need to replace _____ Number of Ventilators require repair _____</p> <p>Number of Lights required _____ Number of Fans Required _____</p> <p>Flooring required Yes_NO: _____ Plaster required Yes: _____ NO: _____ Roof Screeding required Yes _____ NO _____</p>
<p>Number of Additional Rooms Required: _____</p>
<p>Feasibility of structure:</p>
<p>Crack in the slab: Yes_NO: _____ Crack in the beam: Yes_NO: _____ Crack in column: Yes_NO: _____ Exposed steel from inner side of the slab: Yes_NO: _____ Irreparable cracks in walls: Yes _____ NO: _____</p>
<p>Comments if any:</p>

REVISED TORS, AFTER RE-CONFERENCE MEETING

SECTION1:PotentialImpacts	Yes	No	Expected	Remarks
Agriculture wage laborers				
Encroachers and squatters (specify in remarks column).				
Vulnerable APs (e.g. women headed households, minors and aged, orphans, disabled persons and those below the poverty line).Specify the number and vulnerability in “remarks”.				
Others(specify in “remarks”)				
SECTION2				
Others:				
Are there anyother minority groups affected by land acquisition or project activities? If “Yes” specify in “remarks”				
Minority groups (specify in “remarks”).Describe nature of impacts				

REVISED TORS, AFTER PRE-CONFERENCE MEETING

Annexure04**Requirements for staffing:**

<u>Title</u>	Team Leader/Resident Engineer/Project Manager (the Engineer)for both Phases
<u>Qualification</u>	BE Civil Engineering (16yearsofeducation), preferably master’s in civil engineering, Construction Management, Project Management or related field. Project Management Professional (PMP) Certified preferred
<u>Experience</u>	At least 13-16 years of relevant experience in building projects and required to have familiarity with the construction practices, knowledge of project management, construction management and implementation of environmental &social safeguards Should have worked on one multi-year WB/ADB project. B.Sc. Engineering- with minimum 16 Years of relevant experience or M.Sc. Engineering- with minimum 13 Years of relevant experience PEC certified professional engineer World Bank/ADB, Donor funded project experience
<u>JobDescription</u>	<ul style="list-style-type: none">● Reports to the Client and focal person of the firm.● Assumesoverallresponsibilityformanagementandsupervisionoftheteam.● Undertakesresponsibilityforsatisfactorycompletionofprojectasperdesign, specifications and on agreed cost and time frame.● Worksasthe“theEngineer”/ProjectManagerasperClient’sagreementfortheassignedengineeringandsupervisionactivitieswiththebestprofessionalandconsultingstandardstoensurethattheassignmentis completed satisfactorily.● Givefeedbackduringthedesignphaseforeachofthefacilitatestotheprincipalarchitectandstructureengineerandmakesureoverallprogress and quality is achieved as per best international practices.Responsibleforpreparationofthespecificationsrelatedtothestructure elements and overall sub-projects in consultation with the Architect and TL.● Keeps the Client informed of technical issues and the progress of allworksbothbydirectcontactsandthroughdiscussionsorcorrespondence.● Attends, at Project level, all meetings as required and keep are cord of all such meetings.● Assists Clients in preparation of annual work plan and budget.● Assists the Client in any project issue which the Employer may require.

	<ul style="list-style-type: none"> ● Assists in preparation of all reports and the project completion report (PCR). ● Assists the Client in preparing the response to Audit queries. ● Assists the Client in preparing response to financiers or other authority's queries, observations, requirements etc. ● Coordinates with all related Client's organizations for project issues, coordinates with M&E and Development section in fulfilling project objectives. ● Ensure adherence and implementation of ESMP guidelines at all the project focused sites ● Certify and develop IPCs of all the payments along with supporting Documents and submit to the Client for approval and payment
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<u>Title</u>	Principal Architect
<u>Qualification</u>	Bachelors (16 years of education)/Master's Degree in Architecture, Urban Planning, or related field
<u>Experience</u>	The Principal Architect shall have at least 10 years of relevant experience in designing buildings including. Should have experience in sustainable design and climate smart construction.
<u>Job Description</u>	<ul style="list-style-type: none"> ● The Principal Architect Engineer would be responsible for preparation of architecture documents, functional specifications, design documents, and architecture diagrams according to project goals and objectives ● Directly manage the development of architecture design and preliminary construction details in close coordination with the Structural Engineer. ● Ensure architecture design adheres to the established specifications and standards related to Healthcare Facilities ● Make sure projects stay within building by laws, safety regulations and budget ● Make sure design, plans and drawings don't have too much of a negative impact on the environment and the designs meets the industry standards for such facilities. ● Plan best utilization of spaces available for new construction; and ● Consider environment friendly and green aspect in the designs of the health facilities ● Any other tasks assigned by the TL or the client

<u>Title</u>	Procurement & Contract Management Specialist
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<u>Qualification</u>	Bachelor (16 years of education)/master's degree with a major in Civil Engineering, procurement, Law or related field
<u>Experience</u>	At least 10 years of relevant experience in Procurement and Contract Administration. Should have worked on at least two WB/ADB projects.
<u>Job Description</u>	<ul style="list-style-type: none"> ● Assist in preparation of bidding documents, RFQs, RFBs and assists in procurement processes and contract terms and conditions as per World Bank Procurement Regulations ● Assist in bid evaluation and overall procurement process from request through contract awards ● Ensure efficient contract management and provide timely inputs to avoid time and cost over-runs. ● Evaluate Contractor(s) claims and support in dispute resolution if required ● Assist in contract administration and ensure compliances as per contract terms and conditions. ● Provide early warning to both Contractor(s) and employers on any events ● Keep checks on all contractual matters and make sure all the contractual terms and conditions are fulfilled ● Any other tasks assigned by the TL or the client
<u>Title</u>	Structural Engineer
<u>Qualification</u>	Bachelor's Degree(16 years of education) in Civil Engineering and preferably Master's in structure engineering. PEC certified professional engineer
<u>Experience</u>	Atleast (10) years relevant experience as Structural Design Engineer preferably of public Buildings such as health facilities and/or other civil structures like Bridges etc. Should have experience of independently Designing structures.
<u>Job Description</u>	<ul style="list-style-type: none"> ● Preparation of design criteria and Standards and finalization of the design codes to be adopted ● Review and advice on seismically sound design standards and codes for buildings and other facilities involved in project ● Guide the Architect and CAD Operator towards carrying out the structure analysis and design of the buildings and allied facilities. ● Provide details about existing structures, damages and assessment ● Inspect the site and collect the condition data for the design review and finalization of the structural designs and necessary changes if any ● Reviewing the structure design at appropriate intervals during the implementation.

	<ul style="list-style-type: none"> ● Follow construction safety guidelines and incorporate in the structure designs ● Choose appropriate materials based on structural specifications ● Measure loads and pressures caused by environmental / natural disasters and accordingly design the facilities ● Guide the CAD Team in preparation of Drawings and Details of all the structural elements in the designs and drawings. ● Finalize the Structure Design Reports and assist in preparation of various reports and deliverables ● Any other tasks assigned by the TL or the client
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<u>Title</u>	Material Engineer
<u>Qualification</u>	Bachelor's Degree in (Civil Engineering) or BSc (Geology)(16yearsof education).PEC certified professional engineer shall be required
<u>Experience</u>	Atleast (10)years of relevant experience as Material Engineer on Construction supervision projects
<u>Job Description</u>	<ul style="list-style-type: none"> ● Conduct or supervise tests on raw materials or finished products in order to ensure their quality ● He / She will assist and will be responsible for quality of materials used in construction by performing field and laboratory tests and certifying their acceptance based on recommended specifications for the material. ● Design and direct the testing and/or control of processing procedures. ● Monitor material quality/performance and evaluate material deterioration. ● Plan and implement laboratory operations and procedures to check quality of product as per specification and performance standards. ● Make recommendations for material selection based on design objectives, such as strength, weight, heat resistance and Environment friendly aspects etc.

<u>Title</u>	Design Engineer Field
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<u>Qualification</u>	Bachelor's Degree in Civil Engineering Civil Engineering (16years of education). M.Sc. in structural Engineering PEC certified professional engineer shall be required
<u>Experience</u>	At least 10 years' experience in building design related projects
<u>Job Description</u>	<ul style="list-style-type: none"> Assess the need for the construction needs and devise the scope of work of each construction facility, execute the surveys, get the initial data from the field for the design input and collect the Baseline data.

REVISED TORS, AFTER PRE-CONFERENCE MEETING

	<ul style="list-style-type: none"> ● Support in sharing the field level design input with the Architects at office level with the recommendation on most appropriate designs meeting the current construction norms. ● Review and recommend approval and/or issuing working drawings, approval of the setting out of the works, and instruction to the field staff on structural design. ● Assist in implementing the designs and coordinate for modifying the designs for cost effectiveness and technical suitability as per the design criteria and features shared if and when required. ● Ensure adherence and implementation of ESMP guidelines during the design phase of the project in the focused sites in respective district. ● Collect the data on ESMP checklist of the sitting stage and endorsed the design input required for the purpose, i.e., provision of ramps with handrail, provision of toilets of disables, need for planters in the facilities ● Enter the data of ESMP checklists on dashboard of the sitting stage and the enter the data as required. ● Review the designs shared by the architects and validate and take corrective if required on immediate basis. ● To collect and share the soft and hard copies of the construction drawings for the bidding process and clarify the design input where and when required. ● To check and confirm the validity of the design implemented during the construction phase. ● Provide feedback on variation at any stage to the team leader of any construction activity and prepare support documents for submission and approvals. ● Develop close coordination with the field engineer and field staff on a regular basis and update the progress. ● Any other task assigned for the smooth implementation of the project and on ESMP guidelines. ● Perform other duties as required for the success of Project and other tasks assigned by the TL or the client
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REVISED TORS, AFTER PRELIMINARY CONSULTATION

<u>Title</u>	Assistant Resident Engineer
<u>Qualification</u>	Bachelor's Degree in Civil Engineering/(16years of education). PEC certified professional engineer shall be required
<u>Experience</u>	Atleast10years' experience in building construction related projects
<u>Job Description</u>	<ul style="list-style-type: none"> • Supervise the scope of work, execute the surveys, get the initial Data from the design team and share the collected baseline data and supervise during the construction phase and provide technical

REVISED TORS, AFTER PRE-CONFERENCE MEETING

	<p>Assistance for the purpose during the implementation of the project.</p> <ul style="list-style-type: none"> ● Review and recommend approval and/or issuing working drawings, approval of the setting out of the works, and instruction to the field staff on structural design. ● Assist in implementing the designs and coordinate for modifying the designs for cost effectiveness and technical suitability as per the design criteria and features shared when required. ● Ensure adherence and implementation of ESMP guidelines at all the project focused sites in respective district. ● Collect the data of ESMP checklist in coordination with the social specialist during different phases of project life. ● Enter the data of ESMP checklists on dashboard. ● Supervise the construction facilities in detail and report the progress of each activity in the field. ● Provide feedback on variation at any stage to the team leader of any construction activity and prepare support documents for submission and approvals. ● Develop close coordination with the field engineer and field staff on a regular basis and update the progress. ● Provide input on updating the MIS dashboard set in Client by pursuing with the field team for uploading the stage wise data on regular basis. ● Regularly follow up with the Contractor(s) for quality and progress of work and report accordingly. ● Assist TL / Project Manager in Issuance of timely notices to the Contractor(s) for delay progress and quality issues by maintaining logbook on site and report to the concerned stakeholders on urgent basis. ● Overall responsible for quality assurance at the field and timely reporting to the TL/Project Manager of any field related issues. ● Any other task assigned for the smooth implementation of the project and on ESMP guidelines. ● Perform other duties as required for the success of Project and other tasks assigned by the TL or the client
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<u>Title</u>	Field Engineer/Inspector
<u>Qualification</u>	Bachelor's Degree in Civil Engineering (16 years of education) or 3 years Diploma of Associate Engineering

<u>Experience</u>	Atleast 5year’s relevant experience inbuilding construction related Projects incase of B.Sc engineerand8+years of experience in case DAE holder
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<u>Job Description</u>	<ul style="list-style-type: none"> ● Assist the Team Leader/Assistant Resident Engineer and other relevant staff in planning and supervision of construction activities. ● SupportallrehabilitationandconstructionactivitiesundertakenbyContract or(s) in the relevant districts with improved coordinationandtimelytechnicalinputsinordertoeffectivelymeetcompleti ontargets. ● Supervise the implementation of the construction activities based on the design and specifications, review the design if required during the implementation, support Contractor(s) on procurement of project material as per standard specifications and guidelines provided by Material Engineer. ● Undertakeextensivefieldvisitsstoassessthequalityofconstructionactivities ,provide input on quality of material, initiate material tests through Contractor(s) where required as per guidelines to ensure quality. ● Supervise Contractor(s) and provide advice and support to help overcome any short comings in the construction quality and management procedures. ● Assist the Team leader/ Assistant Resident Engineer in timely submission of monthly progress reports on all rehabilitation & construction activities undertaken in the respective districts. ● Check the payments and forward to the ARE on achievement of milestones as agreed in the contracts and ensure timely submissions of payments/bills. ● Ensure testing of material at site from laboratory under the guidance of Material Engineer / TL/ ARE. ● Conduct regular field on project locations, guide and supervise process of schedule implementation. ● Report on the progress of work using Android tools to timely update the MIS Dashboard where applicable. ● Report on the quality of work on regular basis and issue notices to the Contractor(s) through ARE on urgent basis for adopting corrective measures. ● Maintain the logbook on site put up the notes on regular basis on progress and quality of all construction works and highlight during each visit. ● Ensure adherence and implementation of ESMP guidelines and coordinate with social specialist at all the project focused sites in respective district. ● Collect the data of ESMP checklists during different phases of
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	<p>Project life and to submit to social specialist of Social Mobilization implementing partner of the Client.</p> <ul style="list-style-type: none"> Any other task assigned for the smooth implementation by ARE and TL.
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<u>Title</u>	<u>CAD Operator</u>
<u>Qualification</u>	<u>DAE –Civil with diploma in Auto-CAD</u>
<u>Experience</u>	Atleast ten (10)years of drafting engineering drawings /designs on Auto-CAD software experience
<u>JobDescription</u>	<ul style="list-style-type: none"> Work with the Architect and Structure Design Engineer for preparation of architectural and structural drawings, Assist in preparation of the drawings and details required by the design/ supervision team. Anyother task assigned by the Team Leader

<u>Title</u>	<u>Quantity Surveyor</u>
<u>Qualification</u>	<u>DAE – Civil</u>
<u>Experience</u>	Atleast ten(10)years of experience in rate analysis, civil works specifications, development of bill of quantities.

REVISED TORS, AFTER PRE-CONFERENCE MEETING

<p><u>Job Description</u></p>	<p>Design Phase:</p> <ul style="list-style-type: none"> ● Work with Architect, Structure Engineer, and field engineers to develop cost estimates of the health facilities based on final drawings and specifications. ● To develop quantities of all the civil works based on the specification provided or developed. ● Develop final BOQs forbidding documents based on finalized civil works packages. ● Responsible for any estimates revisions and make sure that final BOQs are included in the bidding documents. ● To support in the development of bidding documents against each construction activity and summarize them in packages developed for the bidding process. ● To facilitate in the evaluation of bidding by checking the bill of quantities and to take corrective measure wherever required <p>Supervision Phase:</p> <ul style="list-style-type: none"> ● Work with the chief resident engineer, resident engineer, and the field engineer for IPCs checking and confirmation that quantities are accurately entered. ● . ● To check the bills submitted by the Contractor(s) and validate through the field engineer/inspector and submit it to the resident Engineer for verification.
	<ul style="list-style-type: none"> ● To identify the need and plot the variation orders wherever required on the advised of resident engineer. ● To develop bill of quantities on the variation required in the construction facility during the execution of the project. ● To support the variation order with all the documents required for the approval. ● Any other task assigned by the RE and Team Leader
<p><u>Title</u></p>	<p><u>Health, Safety and Environmental Engineer/Officer</u></p>
<p><u>Qualification</u></p>	<p><u>B.Sc.Engineering, M.Sc.in Environmental Sciences, MBA or equitant NEBOSHIGC Certified, IOSH,OSHA or equivalent certification</u></p>
<p><u>Experience</u></p>	<p>Atleast three(07)years of experience in Health, Safety and Environmental and Social management with reputable organization. Should have work Experience for at least two WB/ADB and infrastructure projects</p>

Job Description

- Conducting Initial Environmental Examination (IEE) and development of ESMP/relevant site-specific instrument for each project.
- Conduct/Coordinate E&S screenings of each site, and preparation of site specific E&S instruments (ESMPs and RAPs) if identified in screening checklists.
- Conduct environmental monitoring as per the site-specific ESMPs and prepare reports. Follow-up on previous reports and actions for closure.
- Review of C-ESMPs prepared by the project contractors.
- Prepare all Project HSE Plans and Procedures and insure its full implementation as per the project contract requirements
- Participate in the HSE coordination meetings with the Consultant, Construction Contractors and various Subcontractors as might be required
- Develop and maintain project HSE Risk Register, Job Safety Analysis (JSA),TRA etc.
- Ensure adequate HSE input to construction prequalification and bid documents
- Conduct safety audits and inspection at defined frequencies including preparing audit reports, following-up corrective actions and providing feedback to Project Management Team on all issues of concern
- Conduct and/or facilitate the reporting and investigation of accidents/incidents and maintain oversight regarding the follow-up and close-out of corrective actions
- Prepare Project risk management plan
- Provide safe cover by devising and implementing health and safety programs

REVISED TORS, AFTER PRE-CONFERENCE MEETING

	<ul style="list-style-type: none"> ● Investigate unsafe acts and situations and take measures to prevent recurrences ● Mark hazardous areas with safety posters, hazard flashes and site safety campaign promotional materials ● Interpret existing environmental regulations and develop plans to drive continual improvement actions ● Develop and implement environmental management plans that focus on waste management and minimization ● Facilitate root cause analysis in case of safety emergencies and create appropriate reports to document progress ● Maintain a record of complaints related to environmental, health and safety aspects received and resolved during the project construction phase. ● Participate in routine HSE activities including corrective actions, investigations and onsite audits ● Ensure site restoration after completion of civil works in accordance with ESMF/ESMP guidelines. ● Anyother task assigned by the RE and Team Leader
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Note: The Consultants will ensure that all relevant team members are retained during the 12months defects liability period to ensure that they are available for any necessary inspections, etc. The technical proposal will need to include information within the work plan regarding what is proposed for the defect's liability period.

REVISED TORS, AFTER PRE-CONFERENCE MEETING