

Bangladesh Road Safety Project
Terms of Reference
Selection of Consulting Firm for Design and Construction Supervision of
Highway Police Training Center (SP-BP-02)

1. Background

Road crash related deaths and serious injuries is a public health crisis in Bangladesh. According to the World Health Organization, fatality rate is more than three times the rate in developed countries. Traffic and speed surveys in a sample of national highways in Bangladesh have highlighted alarming road safety risks, given the large speed differentials between vehicle types and the disparities between vehicle masses and pedestrians. A nation-wide, cross-sectional survey of households in Bangladesh found that injuries resulting from road crashes are the second leading cause of permanent disability in the country. Every day an estimated 220 people are permanently disabled and severely burdened by road crashes.

With financial support from the World Bank, the Government of Bangladesh has recently launched the Bangladesh Road Safety Project (BRSP) to address the road safety situation in Bangladesh under safer roads, road safety management, safer vehicles, post-crash care and development of a crash database/MIS. Bangladesh Police (BP) plays a key role in enforcing the traffic rules and regulation in highways. A Highway Police Training Centre (HPTC) has been envisaged under the BRSP to provide specialized training to the BP and the Highway police to enhance their capacity.

2. Objective

The main objective of these services is to provide support to BP in design and construction supervision of the proposed Highway Police Training Center (HPTC) including assessment and management of ES risk and impacts.

3. Scope of Work

Table 1 shows the indicative plan of buildings and works envisaged for the HPTC. The consultant will finalise.

Table 1: Buildings and works envisaged in the Highway Police Training Center

Sl. No.	Name of the Component	Floor Area	Unit	Remarks
1	Administrative Building (06 Storied Building with 6 storied Foundation)	2,229.65	Sqm	
2	Training Building (6 Storied Building with 6 storied foundation)	2,229.65	Sqm	
3	Barrack Building/Forces Dormitory (6 Storied Building with 6 storied foundation)	2,229.65	Sqm	
4	Commandant's Residence (1 Storied Building with 2 storied foundation)	557.41	Sqm	
5	Officers' Mess (6 Storied Building with 6 storied foundation)	1,560.76	Sqm	
6	External Water Supply	8,807.13	Sqm	
7	External Electrifications	8,807.13	Sqm	
8	Boundary Wall	1,200.00	Sqm	
9	Internal Road (RCC)	800.00	Sqm	
10	Surface Drain	800.00	Sqm	



11	Arboriculture & Landscaping		LS	
12	Training Ground (Site Development , RCC running track etc.) & During Construction Facilities required)		LS	

The scope involves two phases: A) Design phase and B) Supervision of works phase. Besides, both these phases entail ES requirements as shown in: C) Environmental and Social (ES) Requirements section:

A) Design Phase

The Consultant will accomplish the following tasks:

Task 1: Review the design of the training center

The consultant will prepare and deliver all types of design components including, but not limited to the following:

- i. Land Survey with report, design criteria for approval by BP and final architectural design as per design criteria.
- ii. Finalize the Structural, Plumbing, Electrical, Electro-mechanical, Landscaping, Drainage, and any other ancillary design as per the final architectural design
- iii. Synchronize all designs, readjust as per Bangladesh National Building Code (BNBC 2020) and finalize the design in all respects
- iv. Prepare Bill of Quantities (BoQ) and estimates
- v. Conduct detailed consultation meeting with BP to obtain approval on the design and BoQ

The Consultant may be asked to clarify, re-design or design of any structure at any time and should ensure availability of relevant experts as required.

Task 2: Prepare the bid documents for civil works

- i. Upon approval of the design and BoQ by BP, prepare the complete bid documentation including incorporation of ES specification as stated in section C.
- ii. Prepare reply to queries from bidders during bidding period.
- iii. Act as Technical Sub Committee if suggested by the Tender Evaluation Committee.

The Consultant should make available all design experts as required to clarify all design related queries of the bidders.

B) Supervision of works Phase

The Consultant will engage supervision experts from the signing of the contract with the construction contractor or as may be instructed by the Project Director, BRSP.

The Consultant shall act as the “Engineer” and shall provide comprehensive construction supervision and contract management services during construction phase following the award of the construction contract(s) in order to ensure that the works implemented and goods provided are in accordance with the designs, specifications and terms and conditions of the relevant contracts and standards. As the Engineer's representative, the Consultant's Team Leader will administer the civil work contracts and ensure that the works are constructed in accordance with its provisions. The Consultant will have all of those powers which are defined as being the Engineer under civil works contract, however the consultant shall seek and obtain the Employer's specific approval prior to undertaking the following:

- Issuing variation orders which have financial implications or significant in quantities
- Issuing extensions of time for Completion of the Works
- Approving any subcontracting of any part of the works
- Fixing rates or prices



- Issuance of taking over Certificate
- Issuance of Performance Certificate
- Any other work as mentioned in the works Contract documents

Detail design: Core tasks shall include, but not necessarily be limited to the following:

- Preparing a Construction Phase Plan for approval of PD, BRSP
- Preparing a Project Supervision Execution Plan
- Preparing a Quality Control Manual with Standard Operating Procedures
- Fully implementing FIDIC principles in realizing role as “Engineer” including appropriate contract management
- Checklist and approving contractors’ shop-drawings, specifications and all submissions for compliance with their contract requirements
- Updating the original designs or proposing new solutions as necessary to reflect changed conditions on the field or to address the civil work Contractor’s request for variation orders;
- Supervise the tests infield and in laboratory, analyze and justify the results; Undertake independent field and laboratory testing as may be required to verify.
- Responding to any requests for information / requests for inspections from the Construction and Supply Contractors
- Completion of construction site supervision and inspections of all disciplines and all work packages
- Prepare non-conformity reports and propose rectification work(s) or solution(s);
- Coordination of the Construction and Supply Contractors to prevent / avoid delays, claims, etc.
- Monitoring and controlling all aspects of the site construction activities including the Contractor’s and Sub-Contractor’s daily/weekly/monthly progress, quality management program, safety management program, materials procurement/testing/approvals, etc.
- Certification and acceptance of each part of work as completed upon the receipt of Request for Inspection (RFI) from the contractors.
- Verifying and certifying all contractors and suppliers payments including preparation of all valuations and variations as may be required
- Check interim certificates for progress payment, verify the quantities for such certificates and recommend the Employer for payment accordance with the conditions of the contract.
- Ensuring that the Project is being executed as per the agreed time schedules and budgets
- Attending factory inspections and witnessing and issuing acceptance tests
- Submission of required periodic progress reports to Project Director.
- All contract and construction documentation, administration and record keeping
- Ensure the provision of warranties, guarantees and insurance management.
- Check and certify As-Built Drawings prepared by the Contractors before issuance of Taking-Over Certificates.
- Monitor implementation of Environmental and Social Management Plans and compliance with Social and Environmental safeguards as per World Bank guidelines
- Acceptance of the overall project and issue acceptance and completion certificates for the Project.

C) Environmental and Social (ES) Requirements

The consulting firm will provide support to BP in managing ES risks and impacts during design phase including incorporation of ES requirements in the bidding document and during implementation through ES monitoring and supervision.



Site specific ES assessment and compliance monitoring

The consulting firm would prepare/update environmental impact assessment report including site specific ESMP for construction of HPTC and any other activities to be undertaken by Bangladesh Police. The consulting firm would also be responsible of supervision the implementation of various ES instruments prepared for the project during project preparation phase such as ESMF, SEP, LMP and ESCP. Overall, the consulting firm is responsible for preparation of site-specific ES instruments and overseeing and reporting on the ES compliance during the implementation in the field. The assignment includes the following tasks but not limited to:

- Prepare/update ESIA, develop including site-specific ESMP for the HPTC following the ESMF.
- Prepare any additional ES documents if found necessary by BP.
- Prepare ES specification based on the site specific ESMP and include those into the bidding document.
- Develop a GRM and OHS/CHS manual for implementation.
- Ensure overall compliance of the works with GoB and World Bank's ES requirements. Carry out Environmental and Social Monitoring and reporting in accordance with the ESMP and ensure compliance of various ES instruments during implementation.
- Prepare and submit monthly and quarterly monitoring report (including incident reports, reports on labor induced GBV, OHS issues compliance of contractor's on C-ESMP etc., among others) within two weeks of end of a calendar quarter.

Assist PIU in management of contractual obligations

The Works' Requirements of the contract document include the environmental and social (ES) requirements (including requirements relating to Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) which are to be satisfied by the Contractor in executing the Works. The Consulting firm shall ensure that the Contractors comply with all the requirements mentioned in the ES specification and various ES issue related clauses mentioned in the contract document. The firm will review various ES documents submitted by the contractors before submitting those to PIU for their approval.

Such services would include but are not limited to:

- Review the Contractor's Environment and Social Management Plan (C-ESMP) prepared based on the ES specification for managing the ES risks and impacts of ongoing works including all updates and revisions;
- Ensure compliance of codes of conduct that should be provided to and signed by all workers, detailing measures to address environmental, social, health and safety risks, and the risks of sexual exploitation and abuse, sexual harassment and violence against children, all as applicable to such civil works commissioned or carried out pursuant to said contracts..
- Monitor various recommendations of the Labor Management Procedure prepared for the project and ensure its successful implementation.
- Monitor that Occupational Health and Safety (OHS) measures are being complied of.
- Encourage contractors to employ at least 25 percent women.
- Play an active role to ensure that the Contractors, Labor Sarders, and laborers are made fully aware of the GRM and its objectives and functions, as well as the hearing and redress process. The firm will also ensure that Grievance Redress Committees (GRCs) are established at the work sites.
- Review and consider the ES risks and impacts of any design change proposals and advise if there are implications for compliance with ESIA, ESMP, consent/permits and other relevant project requirements;



- Supervise regularly Contractor's compliance with ES requirements in accordance with the approved ES documents including its GBV/SEA obligations, with and without contractor and/or client relevant representatives, as necessary, but not less than once per month
- Undertake audits and inspections of Contractor's accident logs, community liaison records, monitoring findings and other ES related documentation, as necessary, to confirm the Contractor's compliance with ES requirements;
- Agree remedial action/s and their timeframe for implementation in the event of a noncompliance with the Contractor's ES obligations;
- Ensure appropriate representation at relevant meetings including site meetings, and progress meetings to discuss and agree appropriate actions to ensure compliance with ES obligations;
- Undertake liaison, from time to time and as necessary, with project stakeholders to identify and discuss any actual or potential ES issues;
- Ensure any GBV/SEA instances and complaints that come to the attention of the consultant are registered in the grievance redress mechanism.

The consulting firm will report ES related non-compliance issues of contractors according to the project specific non-compliance rectification procedures and will assist for remedy action application.

Capacity Building responsibilities

The consulting firm will develop training plans for various stakeholders such as BP personnel and contractors' personnel. Key topics to be focused on include ESF, ESMP, OHS and CHS, GBV, resource efficiency and pollution management, waste management etc. which will be reviewed and approved by the PIU.

Monitoring of Grievance Redress Mechanism

The consulting firm will be an important part of the grievance redress mechanism (GRM) of the project. They will monitor the administration of grievances; assist PIU towards resolving issues or coming to terms with complainants based on assessment of the problems, type of complaints, and gravity of the situation. The consulting firm would assist BP to redress the grievance of the affected persons through structured Grievance Redress Mechanism. Also assist BP to settle the complains and suggestions from communities or any other stakeholders on procurement, contract management, corruption and fraud, financial management, social and environmental, health safety and other issues.

Technical Advice to PIU

When necessary and required by PIU, the consulting firm will provide technical advice related to ES aspects to the PIU. Such advice would include coordination with other relevant organizations/entities, formulation of strategies to address major issues and complaints, handling grievances, and enhancement of capacity of PIU.

Arrange and Conduct Public Consultations

The consulting firm will arrange and conduct consultation that will need to ensure that Project affected people and other stakeholders are informed about the Project activities and its possible impacts, as well as



offered the opportunity to share their opinions and feedback to input into the ES assessments, planning and design studies and their implementation in accordance with the Stakeholder Engagement Plan (SEP). For meaningful consultations with project-affected groups, communities, women of various age, persons with disabilities, elderly people, local NGOs and rights groups, all relevant documents must be provided in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted. They would document the consultation process, including stakeholder groups/communities consulted and participated, issues raised and discussed, decisions made about the project's social implications. All consultations should be inclusive of community groups, vulnerability and disadvantages. Design the consultation sessions following the SEP and include free, prior, information consent (FPIC) mechanism, where any indigenous peoples will be affected adversely.

4. Contract Duration and location

The duration of the services will be **thirty-six (36) months** from the time of the contract signature. The services shall be delivered primarily in Shibchar, Bangladesh.

5. Deliverables and Timeline

S/N	Deliverables	Timeline (T = signing of contract)
1	Design Criteria Report with Land Survey	T + 1 month
2	Design Finalization and approval	T + 3 months
3	Tender Documentation and BOQ	T + 3 months
4	Quality Control Manual with Standard Operating Procedure	Before start of execution of works
5	Monthly Progress Report	Every Month
6	Quality Control Report	On every execution
7	Any Dispute Negotiation	As required
8	Plan VS Progress Report	Every Month
9	Milestone Report	As per set milestones
10	Risk management report	Quarterly
11	Safeguards, gender, GRM report	Every Month
12	Final report (Compilation of all reports)	At the end of the project

Note: Deliverables are subject to change based on the project's evolving needs and priorities

6. Reporting and Documentation

The Consultant shall prepare reporting formats for all reports and obtain approval of the PD, BRSP at the inception stage for design phase and before start of the supervision phase. After approval these formats must be meticulously followed in every case to ensure authenticity and quality of works.

7. Key Personnel and expertise requirements

(i) Key professionals and estimated person-months

#	Key Personnel	No of Experts	Person- Months
Key Experts (National)			
1	Team Leader	1	36
2	Design Architect (Intermittent)	1	6
3	Design Civil Engineer (Intermittent)	1	6



#	Key Personnel	No of Experts	Person- Months
4	Design Mechanical Engineer (Intermittent)	1	3
5	Design Electrical Engineer (Intermittent)	1	3
6	Supervision Architect (Intermittent)	1	24
7	Supervision Civil Engineer	1	36
8	Supervision Electrical Engineer (Intermittent)	1	6
9	Supervision Mechanical Engineer (Intermittent)	1	6
Total of Key Experts		9	126
Non Key Experts (National)*			
1	Surveyor	1	24
2	CAD operator	1	24
3	Work Supervisor	2	36
4	Computer Operator	1	36
5	Office Assistant	1	36
Total of non-Key Experts		6	156
<i>Note: * - Estimate of non-key experts is indicative. The Consultant will submit a work plan showing</i>			

N.B: Individual Environmental expert and Social expert of BRSP will perform all safeguard related works.

(ii) Qualifications of the Key professionals

The team will consist of the following personnel, with the specified qualifications and experience:

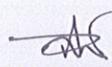
No	Position	Qualification and expertise required	Job Description
1.	Team Leader	<p>Education Graduate Engineer, preferably with a Master degree in relevant field/MBA.</p> <p>Expertise Preferably 15 years of overall professional experience in project preparation and construction supervision. Experience of implementing at least two construction projects of value minimum BDT 30 Crore. Experience in environmental impact assessment, risk management and mitigation measures.</p>	<ul style="list-style-type: none"> • Full responsibility for all aspects of project management, administration, design review, quality control, construction supervision, contract administration, monitoring, maintaining liaison and reporting. • Management of the activities of the team to ensure timely delivery of project output. • Provide advice and direction to the team • Prepare project plan, schedules and time frame for publications of different reports. • Periodic and regular updating of the project implementation schedule. • Review and update design calculations and drawing during implementation as proposed by the contractor. • And all other project related activities.
2.	Design Architect (Intermittent)	<p>Education Bachelor of Science in Architecture.</p> <p>Expertise Preferably 10 years of overall professional experience in architectural designing. Architectural design and experience in</p>	<ul style="list-style-type: none"> • Develop and review architectural design of the training center.



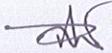
No	Position	Qualification and expertise required	Job Description
		supervision of buildings and structures, landscape and interior design Preference will be given with a higher relevant education and experience.	
3.	Design Civil Engineer (Intermittent)	Education Bachelor of Science in Civil Engineering. Expertise Preferably 10 years experience in structural and foundation design and construction Preference will be given with a higher relevant education and experience.	<ul style="list-style-type: none"> • Prepare structural design as per architectural design. • Review existing design • Any other design related job.
4.	Design Mechanical Engineer (Intermittent)	Education Bachelor of Science in Mechanical Engineering. Expertise Preferably 10 years of overall professional experience in mechanical designing. Experience in design of lift etc relevant to training center.	<ul style="list-style-type: none"> • Prepare mechanical design of the training center. • Review existing design • Any other design related job.
5.	Design Electrical Engineer (Intermittent)	Education Bachelor of Science in Electrical Engineering or equivalent. Expertise Preferably 10 years of overall professional experience in electrical designing. Experience in design of sub-station and setup of generator, switch gear, distribution boards etc. Experience in design of outdoor electric lines, street lighting, house wiring etc.	<ul style="list-style-type: none"> • Prepare electrical design of the training center. • Review existing design • Design of sub-station, outdoor and indoor wiring • Prepare specification of lifts, generator etc • Any other design related job.
6.	Supervision Architect (Intermittent)	Education Bachelor of Science in Architecture. Expertise Preferably 10 years of overall professional experience in architectural designing and/or supervision. Preference will be given with a higher relevant education and experience.	<ul style="list-style-type: none"> • Perform design studies to prepare schematic architectural working drawings. • Carry out site analysis to evaluate site for construction. • Visit construction sites during construction and advise • Modification of drawings and design in accordance with site requirements. • Supervise architectural works of the training center. • Any other relevant works, as required.
7.	Supervision Civil Engineer	Education Bachelor of Science in Civil Engineering.	<ul style="list-style-type: none"> • Guide sub soil investigation in various locations of the site. • Analyze sub soil investigation report



No	Position	Qualification and expertise required	Job Description
	r	<p>Expertise Preferably 10 years experience in structural and foundation design and construction</p> <p>Preference will be given with a higher relevant education and experience.</p>	<p>and carry out foundation design studies to determine most suitable and economic foundation design.</p> <ul style="list-style-type: none"> • Review of design and drawings of foundation and superstructure. • Preparation of modified foundation design and drawings as per requirements. • Prepare monthly and other progress reports • Assist the contractor to prepare schedule following critical path method. • Follow-up work progress according to the schedule. • Report on contractor's claim, valuation, variation etc. • Prepare report on dispute etc, if any. • Any other relevant works.
8.	Supervision Electrical Engineer (Intermittent)	<p>Education Bachelor of Science in Electrical Engineering.</p> <p>Expertise Preferably 10 years experience of illumination design of buildings, design and supervision of electrical distribution system; design, supervision, testing and commissioning of 33/11KV sub-stations.</p> <p>Preference will be given with a higher relevant education and experience.</p>	<ul style="list-style-type: none"> • Assist Team Leader in preparation of overall electrical design • Assist Team Leader in determining Electrical system requirement for the project. • Conduct design studies and calculations for the electrical system including electrical sub-station of the project. • Review of detailed electrical design and drawings submitted by the contractors. • To supervise construction of electrical works. • Any other relevant works.
9.	Supervision Mechanical Engineer (Intermittent)	<p>Education Bachelor of Science in Mechanical Engineering.</p> <p>Expertise Preferably 10 years experience of supervision of mechanical works. Preference will be given with a higher relevant education and experience.</p>	<ul style="list-style-type: none"> • Preparing mechanical system design program for the project. • Checking mechanical system design and drawing developed by the contractors. • To supervise construction of mechanical works.


Md. Amanullah
 ID No. 005028
 Project Director (ACE, CC.), RHD
 Bangladesh Road Safety Project
 Sarak Bhaban Tejgaon, Dhaka.

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9.	Supervision Mechanical Engineer (Intermittent)	<p>Education Bachelor of Science in Mechanical Engineering.</p> <p>Expertise Preferably 10 years experience of supervision of mechanical works. Preference will be given with a higher relevant education and experience.</p>	<ul style="list-style-type: none"> • Preparing mechanical system design program for the project. • Checking mechanical system design and drawing developed by the contractors. • To supervise construction of mechanical works.


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 Sarak Bhaban Tejgaon, Dhaka.