

Title	Structural Engineering Senior Specialist
Vacancy Number	MoPW/SRTAP/PSC/1400-66
Ministry	Ministry of Public Works
Organization	Program for Service life enhancement and construction cost reduction of roads (PSC)
Project	Sustainable Reform & Technical Assistance Project
Duty Station	Kabul
Duration	1 year (with the possibility of extension)
No of Jobs	1
Nationality	Afghan
Sex	Male/Female
Salary Range	NTA Salary Scale (Grade B3 – B5)
Announcing Date	22 May 2021
Closing Date	03 June 2021
Job Type	Engineering
Shift	Full Time
Job Status	Sourcing
Experience	Specific 2 years, General 8 years

Background:

The Ministry of Public Works (MoPW) is responsible for the planning, design, procurement, implementation, monitoring, and maintenance of the various transportation infrastructure projects such as roads, bridges, and its relevant drainage and retaining/protection structures in the government of the Islamic Republic of Afghanistan.

On a mission to reduce project costs and extend the service life of road infrastructures in Afghanistan, the MoPW aims to embark on a project to *develop new Standard Specifications for Roads and highway infrastructures* by taking into account the national and international standards, country's climatic and environmental conditions, economic situation, contractual procedures, safety requirements, local construction materials' engineering properties, and technical aspects of the established design criteria for designing of roads and highway structures.

For the effective accomplishment of this purpose, the ministry intends to establish a team of highly experienced experts with diverse affiliations and extensive partnerships with industry and government organizations that will collaborate for revising the available technical specifications and developing new Standard Specifications for the design and construction of roadways and highway infrastructures with sufficient quality to be adopted by the MoPW and other relevant highway agencies/contractors functioning in Afghanistan. The newly developed Standard Specifications will serve as a standard reference in the construction contracts of roads and highway infrastructure (bridge, culvert,

retaining/drainage structures) projects and outline minimum requirements for them. It will primarily encompass the limitations and standards for materials, equipment, and construction requirements that will ensure the delivery of quality, cost-effective, reliable, safe, and durable road and highway structure projects.

Scope of Work/Job Summary:

The MoPW is looking to recruit a professional *Structural Engineering Senior Specialist* with extensive experience in the analysis, design, construction, and maintenance of highway structures, including bridges, highway gantries, retaining Walls, parapet fences, and well-versed in ensuring the successful implementation of road projects in terms their quality, cost-effectiveness, and timely completion.

The incumbent will function as a member of the team for developing the Standard Specifications and will work under the direct supervision, guidance, and direction of the International SME and leadership of the Team Leader/ Project Manager. The position holder should utilize their qualifications and experience in establishing specifications and guidelines for managing the roads and highway construction projects concentrating on all aspects of projects in terms of time, cost, and quality. The Structural Engineer will be responsible for providing all necessary assistance to the standard specification team concerning reviewing and developing new standards for the analysis, design, inspection, condition rating, maintenance, and procurement of highway structures. The aim is to develop a comprehensive Standard Specification for road projects in Afghanistan that is aligned with both the country's needs and the regional/international standards.

The potential candidate will remain active through all project phases and should work in close coordination with the senior management in the MoPW. He/ She must directly report to the Team Leader/ Project Manager of the team.

Duties & Responsibilities:

The selected candidate will function as a member of the team for developing Standard Specifications and provide necessary technical expertise in the area of analysis and design of highway structures. The role will be responsible to perform the following tasks:

- Demonstrate full understanding of the designing process of road culverts, retaining walls, small and medium-size bridges in compliance with the local & international standards & designing codes;
- Assess, develop, and modify structural design standards and specifications;
- Develop standard specifications for all highway structures, including bridges, retaining walls, drainage culverts, etc.;
- Establish criteria and procedure for reviewing and approving the design of temporary works, including shuttering and scaffolding, for suitability and safety during construction;
- Establish standards and procedures for reviewing and approving the quality control test results for all structural elements;
- Incorporate optimized construction techniques in standard specifications for highway structures;
- Propose best practices for analyzing, designing, and inspecting bridges, retaining walls, and drainage structures for a wide variety of road projects and prepare inspection checklists;
- Develop standards for the maintenance of critical bridges and other highway structures;
- Develop checklists for the selection of appropriate location for bridge/culvert, retaining wall, and protection walls by taking the hydrological analysis into account;
- Ensure the development of the most appropriate and economically viable structural design methods for highway projects in the country;
- Ensure that the developed Standards Specification complies with national and international standards, country's climatic and environmental conditions, economic situation, and the

engineering properties of available construction materials;

- Demonstrate a comprehensive knowledge of currently adopted design, procurement, and construction procedures and approaches for infrastructural projects in Afghanistan;
- Perform needs assessments and discover problems in current practices through field studies and regular meetings with structural engineers, site managers, surveyors, provincial engineers, and stakeholders;
- Ensure projects meet legal, environmental, and health/ safety standards through the adoption of newly developed standard specifications;
- Plan and coordinate the activities for the development of standard specifications to ensure compliance to procedures and regulations as required by the MoPW;
- Assist the team in disseminating and publishing the finalized standard specification draft;
- Interact with experts from a range of disciplines (construction engineer, contract specialist, traffic engineer, material/pavement engineer, etc.) to compile a comprehensive standard specification;
- Complete all work in conformance with the MoPW core values;
- Develop and maintain effective working relationships with seniors and the standard specification team and provide the necessary advice and support to them;
- Assist the Project Manager in reviewing/preparing the progress reports (weekly, monthly, quarterly);
- Assist the team in drafting the standard specifications and oversee the writing quality;
- Ensure that the language used in draft Standard Specifications is clear, simple, precise, and appropriate to the intended audience; and
- Perform other tasks related to developing standard specifications required or assigned by the senior management.

Skills & Competencies:

- Demonstrate in-depth knowledge of current structural analysis and design techniques with extensive design & construction experience in highway structures;
- Know the process of reviewing and approval of the submitted work program by the contractor as well as monitoring the work progress during the construction;
- Able to develop specifications/ guidelines and write clear, concise, and accurate technical reports/documents;
- Acquaintance with regional and international standards related to the analysis and design of highway structures and demonstrate knowledge of relevant AASHTO and IRC / MoRTH guidelines;
- Professional knowledge and experience related to bridges Inspection and structural evaluation design of highway bridges, tunnels, culverts, etc.;
- Preferably, fully conversant with the standard forms of contracts used in highway projects;
- Hands-on experience with Civil 3D, CSI Bridge, SAP, STAAD, and other engineering software;
- Able to analyze reports of survey, visual evaluation, detailed Inspection, field tests, design repairs and rehabilitation of bridges and highway structures located on the country's road network;
- Highly motivated and enthusiastic team player with a strong desire to succeed;
- Able to manage conflicting priorities; and
- Demonstrate leadership in handling and working with multidisciplinary teams.

Job Requirements:

- A bachelor's degree holder in Civil engineering with a structural emphasis or a master's in civil engineering, structural engineering, construction engineering, or related field (preferred) with specialization in the analyses, design, and construction of highway structures (highway interchanges, bridges, river crossings, culverts, retaining structures, drainage structures, etc.);
- Proficiency using Auto CAD, Civil 3D, CSI Bridge, SAP, STAAD software is desirable;
- Have at least 8 years experience in leading large-scale highway projects, mainly focused on the design and construction of bridges and other road project structures;
- Having 2 years of experience in preparing technical documents and developing standards/manuals is highly preferable;
- Must be fully familiar with the currently practiced construction techniques and standards for highway structures in Afghanistan and have the knowledge of methodology concerning standard specification development;
- Must have been a part of several high-profile infrastructural projects in high-profile companies/ organizations;
- Must demonstrate robust technical writing and English communication skills;
- Proven organizational and problem-solving skills;
- Able to travel to the remote area all over Afghanistan;
- Perform any other job-related duties and tasks assigned by the senior management.

Required Documents:

- CV with a cover letter for the relevant position;
- Copy of verified Degree by the Ministry of Higher Education;
- Copy of verified Afghan ID Card (Tazkera) or Passport;
- Copy of verified last Posting Contract; and
- Copy of other relevant documents that support the application.

Submission Guideline:

Interested candidates are requested to forward their applications, detailed CV and other required documents to jobs.mopw@yahoo.com indicate the vacancy number (**MoPW/SRTAP/PSC/1400-66**) and the post title (**Structural Engineering Senior Specialist**) in the subject line when applying by email to the Human Resource Unit – Sustainable Reform and Technical Assistance Project of Ministry of Public Works (MoPW) at Kabul, Afghanistan.

Address: SRTAP Office, Railway Building, Kabul-Jalalabad Rd., opposite KMTC, MoPW, Kabul, Afghanistan.

Note: Only short-listed candidates will be contacted.