Title Senior Road Hydraulic Structures Engineer

Vacancy Number MOPW/SRTAP/1400-29

Ministry Ministry of Public Works

Organization Road Maintenance Directorate

Project Sustainable Reform & Technical Assistance Project (SRTAP)

**Duty Station** Afghanistan (Various Provinces)

**Duration** 1 Year (with possibility of extension)

No of Jobs 2

Nationality Afghan

Sex Male/Female

Salary Range According to NTA Salary Scale (C-2)

Announcing Date 03/May/2021

Closing Date 15/May/2021

Job Type Engineering

Shift Full Time

Experience +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.

Therefore, to enhance the capacity to strengthen its ability to deliver effective, efficient and transparent services in MPW the Human Resource Directorate wishes to recruit the following staff on contract basis from development Budget for the Ministry of Public Work (MoPW)

## Scope of Work/Job Summary:

MPW is looking to recruit a Senior Road Hydraulic Structures Engineer with extensive experience in a wide range of civil construction activities including, but not limited to, building, maintenance, and repair of Road structures such as culverts, bridges, drainage structures, and retaining walls. The incumbent must have a thorough understanding of the international and local design and construction codes/regulations/standards. The incumbent will function as a member of the operation and maintenance team where He/She provides technical inputs and Supports technical and engineering personnel with project support duties. The potential candidate will remain active through all project phases and should work in close coordination with the senior management in MPW. He/ She must directly report to the Senior Engineers/ Consultants of the Department.

The Senior Road Hydraulic Structures Engineer will carry out the following

#### **Duties & Responsibilities:**

- Provides expertise and guidance on complex hydraulic projects, which may include review and improvements to Structures and drainage systems.
- Oversees field studies of existing hydraulic facilities; ensures engineers are collecting the correct information.
- Conducts field studies for complex projects; identifies, recommends, and tests strategies to resolve problems and concerns.
- Researches and proposes expansion, upgrades, and/or maintenance work to maintain and improve infrastructure.
- Verify Collected available hydrology/hydraulic data from relevant sources and other relevant authorities;
- Make site visits with the investigation teams to evaluate the ground situation and provide input to hydraulic structures designs;
- Determine location and extent of the catchment area of each river/stream up to the bridge/culvert crossings;
- Designs and tests hydraulic systems; forecasts the effects on equipment, including expected wear and tear and degradation.
- Uses computer-aided design softwares to simulate the hydraulic structures and to create blueprints for water-control facilities.
- Determine intensity, duration and distribution of rain in the catchment;
- Determination of design discharge;
- Investigate river meandering characteristics, determine the protection works required guide banks, Spurs and bank protection;
- Provide appropriate design of river training structure along the bank of the river requiring the same:
- Determine maximum flood levels for the design return period of each river crossing within the project;
- Undertake scour estimates and opening design of drainage structure;
- Preparation of methodology for hydrological / Hydraulic analysis and conduct hydrological / Hydraulic analysis and reports for bridge, culvert and road projects;
- Identify and analyze watershed runoff, channel analysis, floodplain delineation, erosion and sedimentation analysis;
- Statistical analysis for flood frequency, and ground water and reservoir system analysis and modeling;
- Review and comment contractors hydrological/hydraulics analysis and report.
- Prepare written and oral reports and make suggestions and recommendations for inclusion of hydrological / Hydraulic study findings in the reports;
- Carry out hydrology-related study procedures for assigned projects;
- Contribute as necessary to final concept design report, highlight remaining challenges and propose solutions;
- Produce sound analytical and modeling reports
- Perform any other duty in line with this TOR as required by the Senior management;

# **Skills & Competencies:**

- Proven knowledge and experience in hydraulic structures for Road Projects
- Fluent in both oral and written English is required
- Ability to work in a team environment
- Proven organizational, negotiation and problem-solving skills
- Demonstrated ability to training and build capacity of counterparts.
- Ability to overcome challenges and work in difficult work environments/conditions.

# **Job Requirements:**

• Bachelor Degree's in Civil Engineering preferably Masters in Hydrology, hydraulics or equivalent 'required with 8 years of work Experience related supervising the implementation of

road and bridge construction projects including leading supervision teams; or Experience in managing QA/QC in construction

- Knowledge in Highway Engineering relating to planning and design of Hydraulic elements/structures
- At least 8 years relevant experience in hydraulic related work on Road projects.
- At least 8-year experience in a large-scale Road Construction Project(s).
- Knowledge and experience in use of AutoCAD is required Knowledge and experience in GIS, HEC-HMS, HEC-RAS, HEC-GEORAS and Win TR55 are required.
- Previous experience in mentoring and training counterparts is considered an asset

# **Required Documents:**

- Copy of verified Bachelor Degree by Ministry of Higher Education
- Copy of verified Afghan ID Card (Tazkera)
- Copy of verified last Posting Contract

### **Submission Guideline:**

Interested candidates are requested to forward their applications and detailed CV to <a href="mopw.vacancies@yahoo.com">mopw.vacancies@yahoo.com</a>, kindly indicate the vacancy number (MoPW/SRTAP/1400-29) and the post title (Senior Road Hydraulic Structures Engineer) in the subject line when applying by email. To the Human Resource Unit – Sustainable Reform and Technical Assistance Project of Ministry of Public Work, Kabul, Afghanistan.

Office Add: SRTAP Office, Kabul Jalalabad Road, In front of KMTC, Ministry of Public Work, Kabul Afghanistan.

Only short-listed candidates will be notified