



Government of Nepal
Ministry of Physical Infrastructure and Transport
Department of Roads

Development Cooperation Implementation Division

Strategic Road Connectivity & Trade Improvement Project (SRCTIP)

Notice No. SRCTIP/ 2 /077-78

Contract Identification Number: SRCTIP-DOR-CS-QCBS- 7

REQUEST FOR EXPRESSION OF INTEREST

Date of first publication: 11th August, 2020

Country : Nepal

Name of project : Strategic Road Connectivity & Trade Improvement Project (SRCTIP)

Credit No. : 6673-NP

Assignment Title : Short Listing of Consulting Firms for Detailed Design and Technical Support Consultant for Research and Training Centre at Gajuri

The Government of Nepal has applied for financing from the World Bank toward the cost of Strategic Road Connectivity & Trade improvement project (SRCTIP) and intends to apply part of the proceeds for consulting services.

The consulting services ("the Services") include **conducting survey, develop a master plan, and prepare a detailed design for full-fledged research and training centre and also conduct compliance monitoring during the construction phase.**

The Consultant shall perform the job as per Terms of Reference (TOR). For Detailed TOR and other Details including submission deadline please refer website of the Department of Roads: www.dor.gov.np/notice.

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The Department of Roads, Development Cooperation Implementation Division (DCID) now invites eligible Consulting firms ("Consultants") to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services. The short-listing criteria are:

- Core business and years in business (minimum 5 years)
- General experience of the consulting firm in any civil engineering projects
- Relevant experience of the consulting Firm with similarity in nature, size, complexity (Detailed Design/Construction supervision of Buildings)
- Organizational capability of the firm for the assignment

The attention of interested Consultants is drawn to paragraphs 3.16 - 3.17 of the World Bank's Procurement Regulations for IPF Borrowers, dated July 2016, revised August 2018 ("Procurement Regulations") setting forth the World Bank's policy on conflict of interest.

A consultant will be selected in accordance with the Quality & Cost Based Selection (QCBS) method set out in the World Bank's Procurement Regulations.

Consultant may associate with other firms in the form of a joint venture or a sub-consultancy to enhance their qualifications. Consultant shall clearly state the form of association, if any, whether in the form of joint venture or sub consultancy in the Expression.

Interested Consultant may obtain further information about the service at the address below during office hour.

Expression of interest must be delivered in written form during office hours to the address below by **26th August 2020.**

Department of Roads

Development Cooperation Implementation Division

Strategic Road Connectivity & Trade Improvement Project (SRCTIP)

Jwagal, Lalitpur

Tel: +977-1-5541686; Fax: +977-1-5542532

Email: dorfc@dor.gov.np



TERMS OF REFERENCE (TOR)

DETAILED DESIGN AND TECHNICAL SUPPORT CONSULTANT

For Research and Training Centre at Gajuri under SRCTIP

1. BACKGROUND

The government of Nepal with financial support from the World Bank has launched a project intending to improve the efficiency and safety of select transport infrastructure, improve the efficiency of cross-border trade, and strengthen capacity for strategic road network management. The outcome of this Strategic Road Connectivity and Trade Improvement Project (SRCTIP) will be measured through (a) reduction in travel time, vehicle operating costs and annual fatalities related to road crashes on the roads being improved or upgraded; (b) reduction in the time taken for goods transit at a major border crossing point; (c) reduction in time taken for sanitary and phyto-sanitary clearances in the export of selected agricultural commodities; (d) increase in the percentage of Core Road Network (CRN) in “good” condition.

To enhance the institutional strengthening of the Department of Roads (DOR)’s personnel regular training and capacity building activities shall be carried out. DOR is now facing difficulty in conducting the required technical training due to a lack of physical facilities/training center.

Component 3 of the project aims to improve the capacity of the Department of Roads (DOR) for better management of the Strategic Road Network in Nepal. One of the activities considered under this component is the development of DoR camp at Gajuri, Dhading as full-fledged research and training center. The camps’ land area is under the ownership of the Department of Roads having fencing all around the boundary and existing facilities at camps serving as Site Camp of Road Division Office, Bharatpur, Chitwan. DCID, DOR hereby solicits Detailed Design services through an engineering firm for the facility.

The main structures and facilities included in the design are;

- (i) Main Training Block, 2 stories (tentative 1100sqm built-up area)
- (ii) Trainer Guest House Block, 3 stories (tentative 1150sqm built-up area)
- (iii) Participants Hostel Block, 3 stories (tentative 1750 sqm built-up area)

2. OBJECTIVE

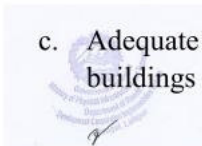
The objective of the services is to survey, develop a master plan, and prepare a detailed design for full-fledged research and training center spread over 12500 sq. m land area at Gajuri in Dhading District. The Consultant’s selected expertise shall also help the project team to conduct compliance monitoring during the construction phase.

3. SCOPE OF WORK

The detailed tasks and responsibilities include phase 1: survey, master plan, and detail design including the preparation, design drawings, cost estimate, specification, and bid documents; and Phase 2: compliance monitoring, check support to the project team and quality control supervision of the project during the construction phase. The followings are detailed as:

A. Preliminary Tasks

- a. Topographical survey of the existing and or proposed facility extension area including access roads, stormwater drainage to the nearest natural watercourse and utilities. Establishment of permanent RCC benchmarks at appropriate spacing to control the survey.
- b. Leveling survey with spot levels at 10 m spacing with accuracy to draw contours with 0.2 m intervals.
- c. Adequate Geological /Geotechnical investigations (with 4 number of 8m deep boreholes for buildings higher than 2 stories, with 4 numbers of 1m x1m x2m pits for buildings up to 2 stories,



and 1m x1m x1m pits at 10m spacing for other works) and all laboratory testing required for the design of proposed structures, pavement, and slope-stabilization works.

- d. Construction material survey to identify the source, quality, and quantity of the construction materials and location of the borrow pits and the quarries; identify disposal area for the dispose of surplus materials.
- e. Hydrological investigation and studies, to determine the different hydrological parameters required including drains, longitudinal drainage, and subsoil drainage system.

B. Environmental & Social Assessment, and Safety Considerations

- a. The design should take into consideration all probable risks to the environment, local communities, and the health and safety of both workers and surrounding communities by the proposed works, and the design should mitigate or minimize such risks, with the inclusion of appropriate measures in the design.
- b. All other mitigation measures should likewise be fully reflected in designs and associated construction cost estimates, as appropriate. The Consultant shall follow the World Bank safeguard policies (ESF and other policies) and EHS Guidelines, COVID-19 guideline for construction prescribed by the WHO as well as environmental guidelines and standards as per local laws. Where the World Bank and the GON standards differ, the higher standard shall be adopted, unless a specific justification can be made to the contrary.
- c. Conduct rapid social screening/assessment to determine the existing socioeconomic and ethnic characteristics of the area of direct influence (within the periphery of 200 meters from the proposed training center). In particular, determine if there are Indigenous People who hold interest in the area. The outcome of this assessment may inform a detailed social assessment to inform the designs and final drawings.
- d. Based on the rapid social assessments, determine the potential for enhancing the development outcomes of the training center by linking its design and operation to existing or potential community-driven economic activities.
- e. Based on the environmental assessment (SS-ESMP), determine the potential risk for enhancing the development activities related to the construction of the training center, and link it to the design.
- f. Prepare the site-specific detailed Environment and Social Management Plan (ESMP) based on the recommendation from E&S screening. ESMP shall include measures to address traffic and health safety of communities along the access road during construction and operation of the center.

C. Designs and Drawings

- a. Preparation of at least 3 conceptual design options with preliminary cost estimates.
- b. Based on the approved design option, the Consultant shall prepare a design for a maximum of (i) 5 office rooms; (ii) 2 training halls for accommodating 125 participants; (iii) dormitory to accommodate 75 trainees; (iv) guesthouse to accommodate 20 trainers and staff; (v) a materials laboratory; (vi) Canteen and dining hall; (vii) pump and generator house; (viii) water supply system; (ix) electrification including tapping from the nearby city grid; (x) sewage treatment system; (xi) security arrangement with fencing the campus along with CC cameras at strategic points; (xii) vehicle parking area; (xiii) internal circulatory paths; (xiv) slope protection works towards the river; (xv) planting scheme in the remaining area; and (xvi) drainage improvement on the access road to the highway; (xvii) Carryout detailed interior design including furniture, fixtures and their cost estimate and (xviii) open space to gather during an emergency.
- c. The design shall include structural and architectural designs with adequate details for construction. The drawings shall also contain a bar-bending schedule, splicing schedule, and detailed material estimation considering the available steel sections in Nepal or nearby Indian cities.



- d. The designs shall include RCC structures, pre-fabricated structures, RCC pavement, asphalt pavement, concrete block pavement, water supply system, sanitary installations, flooring, finishing, wastewater disposal system, electricity supply, electrification, telecommunication, a fire-fighting system suitable for the corresponding use as per the international best practices.
- e. All the design works must follow the requirement and standard code of practices required by DUDBC for a similar facility.
- f. The Consultant shall furnish the important documents, design reports, drawing, and other necessary information acceptable format in soft copies.
- g. The design shall consider the universal access approach and special requirements of the female and disabled users.

D. Approval of Building Plan

- a. For all the buildings, drawings, as required by local municipalities and filling of forms to get municipal approval, shall be prepared.
- b. The Consultant will be responsible for providing technical details and documents for Municipal Approval of the development plan from the corresponding municipality.

E. Preparation of Bid Documents

- a. The Consultant shall derive unit rates of required work items based on the approved District Rates.
- b. The Consultant shall prepare Engineer's Estimates of the construction works with sufficient accuracy to prepare bidding documents.
- c. The Consultant shall make necessary packages of the works as per the client's requirements; since the construction of works shall be done in phase-wise.
- d. The Consultant shall prepare work and material specifications in compliance with standard specifications of relevant GON agencies. A Special Specifications volume needs to be prepared for the work items not covered by DOR's Standard Specifications for Roads and Bridge Works.
- e. The consultant shall include requisite ESH requirements required for bidders to participate in the bidding process;

F. Technical Support during Construction Phase

- (i) Check the Contractors' work program and approve the sources of materials and construction material;
- (ii) Check the Contractors' working drawings and recommend for approval to clients.
- (iii) Check the progress of the work, examine and attend the measurement of any work that is about to be covered, and order, if required, uncovering of unsatisfactory works and its satisfactory reconstruction;
- (iv) Check Contractors' invoices, claims and other statements concerning arithmetical errors and compliance with the contracts and issue interim certificates for payments, and certify completion of parts or the totality of the works;
- (v) Inspect the performance of works in compliance with design, specifications, order, supervise or perform tests on materials and approve or disapprove the Contractor's plant and equipment; order the removal of improper or substandard works and expose work which has been covered without permission;
- (vi) Supervise the Contractors in all matters concerning safety and care of the works;
- (vii) The Consultant team to ensure full compliance with national legislation and World Bank Environmental and Social Framework (ESF) before the commencement of construction activities in a specific location as construction progresses;



4. DURATION OF SERVICES

Considering the different activities proposed herein and their logical sequence, for the design phase a total of 6-months of engagement is estimated. There will be a separate technical review and support phase (approximately 2.5 years including procurement phase) during construction where the selected experts will have intermittent inputs to support the project team in compliance monitoring and check. Hence, the total duration of the services shall be 3.0 years from the commencement date.

5. CONSULTANT'S TEAM

5.1. Expert Input

- A. The Consultant's Financial Proposal should include all the direct and indirect costs necessary to execute the services and reporting.
- B. The number of experts proposed for different positions shall match with the Consultant's Technical Proposal.
- C. A minimum list of key staff and their indicative inputs are tabulated below. The Consultant being the expert on providing services is free to propose additional experts, non-key experts, support staff and their corresponding inputs. The input of Environmental and Social Safeguard expert's working in DOR-DCID shall be used for this project. Hence, the Consultants are not needed to propose the cost of these experts.

S.N	Professional Staffs	Quantity	Man-Months	Remarks
	<i>Phase 1: Survey and Design phase</i>			
1	Senior Architect/Team Leader	1	6	
2	Structural Expert	1	3	
3	Electrical Expert	1	1	
4	Water and Sanitation Expert	1	2	
5	Geo-technical Expert	1	2	
6	Civil Engineer	1	5	
7	Environmental Expert	1	0	Inhouse-DCID
8	Social Safeguard Expert	1	0	Inhouse-DCID
	Phase 2: Compliance Check/Monitoring during the construction period (intermittent input as per request)			
1	Senior Architect/Team Leader	1	3	Same person as Design Phase
2	Structural Expert	1	2	Same person as Design Phase
3	Electrical Expert	1	1	Same person as Design Phase
4	Water and Sanitation Expert	1	2	Same person as Design Phase
5	Quality Control Engineer (Civil Engineer)	1	18	



Note: List of key professionals and estimated person month is for reference only. The Consultant is responsible to review the required services and may propose own requirements for the key professional and other support staff that required to complete the proposed services in satisfactory manner. Financial proposal should include all the direct and indirect costs necessary to execute the services as elaborated in the TOR

5.2. Firms Qualification and Team Qualifications Requirements

Firm must have sufficient qualification and experience to carry out the assignment. As a minimum, the consultant (firm) must have (i) 5 years of standing in consulting services in the building design; and (ii) experience of building design/ supervision (total built up area 3000sqm).

A. Senior Architect/ Team Leader

Education: Graduate in Architectural Engineering; Post-graduate in Architecture or proficiency in the use of CAD preferred.

Experience: Total of 7 to 10 years experience including 5 years in the design of multi-story buildings; experience in construction supervision will be an advantage.

B. Structural Expert

Education: Graduate in Civil Engineering; Post-graduation degree in Structural Engineering or equivalent preferred; proficiency in using common structural analysis and design suites will be an advantage.

Experience: 5 years in structural design and construction supervision of multi-story RCC buildings;

C. Electrical Expert

Education: Graduate in Electrical Engineering. Post-graduate in Electrical Engineering preferred; relevant training will be an advantage.

Experience: 5 years of experience as an Electrical Engineer with experiences in the design and supervision of electrical works in building complexes.

D. Water and Sanitation Expert

Education: Minimum Graduate in Civil Engineering; Post-graduate in Water Supply and Sanitation or a relevant subject preferred; relevant training will be an advantage.

Experience: 5 years of experience as in the design and supervision of water supply/ sanitary systems for building complexes.

E. Geotechnical Expert

Education: Graduate in Civil Engineering; Post-graduate in Geotechnical Engineering/ Material/ Quality Control Engineering preferred; training in sub-soil exploration will be an advantage.

Experience: 5 years in sub-soil exploration, geotechnical investigations, foundation design of buildings.

F. Civil Engineer (for design phase)

Education: Graduate in Civil Engineering

Experience: 5 years in building design, estimation, rate analysis, bid document preparation.

G. Quality Control Engineer/Civil Engineer (for construction phase)

Education: Graduate in Civil Engineering

Experience: 5 years in building construction supervision as a quality control engineer.



6. REPORTING/ DELIVERABLES

A. The Consultant is required to prepare the following reports:

Report	Submission condition	Due date
Inception Report	Hard/soft copies with a slide presentation	Within two weeks of the agreement
Survey and soil investigation report	Hard copy and soft copy	Within 2 months of the agreement
Master plan and Preliminary design options report	Hard/soft copies with a slide presentation	Within 3 months of the agreement
Draft Detail Design report for the building and other structures for the selected option:	Architectural/ structural, Water supply/ Sanitation/ Electrical/ design, drawings, specification, cost estimate, environmental assessments, bid documents Hard/soft copies with a slide presentation	Within 4.5 months of the agreement
Final Design Report	Architectural/ structural, Water supply/ Sanitation/ Electrical/ design, drawings, specification, cost estimate, environmental assessments, bid documents	Within 5.5 months of the agreement
Detail documents for Submission for Municipal Approval	Hard copies of a set of drawings, maps, filled forms as required for Municipal Approvals on Development Plan	Within 6 months of the agreement
Bidding Documents	Bidding documents including Template with Specific Specification and Specific Condition of Contract	Within 6 months of the agreement
Monthly Progress Report	Monthly progress report including all activities done in a particular month with quality control report	During the construction phase; each month
Annual Progress Report/ Final Report and Specific Reports		Specific reports as and when requested by the Employer

B. Each of the reports shall be submitted in 5 hard copies and a soft copy.

7. GENERAL OBLIGATIONS

7.1. Facilities to be provided by the Employer

The Employer shall provide the following facilities to the Consultant free of cost during the period of service:

- a. A counterpart staff; Environmental and Social Safeguard experts to facilitate the Consultant's activities, communication with the Employer, other government agencies, and the World bank. Environmental and Social Safeguard expert from the DOR shall exclusively work with the Consultant's team for the proposed assignment and preparing the Environmental and social requirement.
- b. Cadastral map and land ownership certificate for all parcels where the facility is to be developed.
- c. All the available studies, reports, and documents related to the project component.
- d. Uninterrupted access to the construction site for survey and field investigation.



7.2. Consultant's Obligations

The Consultant should avail all non-key technical, administrative, and support staff as well as all logistical support to complete the assignment. The Consultant may also propose additional home-based technical backstopping. All inputs are considered to be costed and included in the Technical and Financial Proposals.

The Consultant is responsible to provide living and working spaces, transportation, and insurance obligations for its staff as per legal requirements in Nepal.

