

TERMS OF REFERENCE

Title:	Consulting Engineer - SISSTEM
Duty Station:	Aruba
Type of Contract:	Individual Consultant - Long-Term Agreement (LTA)
Post Level:	
Languages Required:	English
Expected Duration:	Maximum of 15 days per month for three (3) years up to a total of 180 days over a three (3) year period

1. Project Background

Aruba has embarked on implementing a sustainable development strategy as a key pillar of its overall development by reducing its dependence on the tourism industry, as well as, its use of fossil fuels and is pursuing initiatives to facilitate a 'green' knowledge economy driven by innovation. In so doing, the Government of Aruba (GoA) has identified the need to enhance its human resource capacity in higher education in Science, Technology, Engineering and Mathematics (STEM) and has endorsed the establishment of a group of programmes for Sustainable Island Solutions through Science, Technology, Engineering and Mathematics (SISSTEM) at the University of Aruba (UA).

The key objective of the project is that the UA will be able to deliver tertiary level educational programmes (Bachelor's and Master's Level) as well as a research offer with particular focus on the STEM subjects. The SISSTEM Project will result in an increase in the number of persons with expertise and technical skills for innovative, sustainable development in Aruba, in the Caribbean, as well as, in other Small Island Developing States (SIDS). UNDP has been selected as the implementing partner for the new faculty expansion which will secure and make available physical facilities to house the new Bachelor STEM Programme, a Master's Programme in Sustainability and a new Research Institute.

The SISSTEM Faculty Expansion Project will include refurbishment of the Maria Convent in Aruba to accommodate multifunctional classrooms for 25 to 50 students and office space for 25 staff members, as well as, construction of laboratories (one Chemistry lab, one Physics lab, one Biosciences lab and one ICT lab) as well as procuring furniture and equipment for all classrooms, offices and laboratories.

2. Duties and Responsibilities

The Consulting Engineer has the responsibility to ensure the effective and efficient day to day implementation of all technical/engineering aspects within the project under the overall guidance and supervision of the Project Manager. He/She will ensure the functioning of all technical aspects related to construction and/or renovation works for the project.

Responsibilities of Consulting Engineer include:

- i. Preparation and updating of project annual and quarterly work plans, and submission of same to the Project Manager for approval.
- ii. Preparation and participation in work planning and progress reporting meetings as required.

- iii. Assistance in the drafting of terms of reference for key inputs (i.e. personnel, sub-contracts, training, and procurement) and submission of same to the Project Manager for clearance and approval, and assistance in the mobilization of such inputs.
- iv. Provision of technical engineering advice to project beneficiaries, revision of technical reports and monitoring of technical activities carried out by responsible parties.
- v. Supervision of technical/engineering staff and any local or international short-term consultants working on the project.
- vi. Monitoring engineering and construction methods and quality control, certification of that the quality of work conforms to the European standards for Universities of this nature.
- vii. Ensuring the timely submission of work plans, reports, outputs and other deliverables to the Project Manager for review and evaluation, as appropriate.
- viii. Provision of necessary technical support to project manager, including risk management, cost control, scheduling, monitoring and reporting.
- ix. Provision of support and guidance to project staff and experts working on the Project.
- x. Provision of support to the Project Management in preparation for Project Board Meetings and all reporting requirements.

3. Competencies

- i. Strong analytical skills, oral and written communication and team building skills.
- ii. Commitment to UNDP's mission, vision and values.
- iii. Sensitivity to cultural, gender, religion, race, nationality and age differences.
- iv. Demonstrated ability to function in a team environment and to deal with complex multi-stakeholder environment.
- v. Ability to focus on impact and result for client and responds positively to critical feedback.
- vi. Excellent time management and organizational skills with the ability to handle multiple tasks.
- vii. Capacity to work under tight deadlines, manage stress and adapt to rapidly evolving situations.
- viii. Excellent oral and written communication skills in English.

4. Education and Experience

- i. Must possess university degree in Civil Engineering or equivalent. A Master's Degree will be an asset.
- ii. A minimum of 10 years practical post-qualification experience.
- ix. Must have extensive experience in design works, contract administration, contractor management, cost management and public works. Experience with reconstruction of historic buildings and facilities would be an asset,
- x. Must have recent experience (last 7 years) as a resident engineer on at least one construction project of comparable magnitude.
- xi. A knowledge of FIDIC, particularly Design and Build FIDIC EPC/Turnkey based contracts would be an asset.
- xii. Previous experience in historic rehabilitation projects in the Caribbean will be an asset.

5. Duration

The IC Contract will enter into effect upon signature by both parties, expected for one year of duration and can be extended up to 2 (two) additional periods of 1 (one) year each up to a maximum of 3 (three) years upon certification of satisfactory performance.

6. Supervision

Consulting Engineer will be supervised by the Project Manager.

7. Fees

The consultant will receive payment based on his/her daily fees, for the maximum of 180 days (maximum of 15 days per month for 3 years but no more than 180 days for the three (3) years) days under this assignment.

The candidate shall quote his/her services on a professional daily fee for services based on the deliverables identified below.

Travel to and from Aruba would be the responsibility and at the expense of the consultant and should not be included in the price proposal.

8. Evaluation Criteria

Method: Highest total score of weighted interview and financial criteria. The price proposals of all shortlisted consultants¹, who have attained a minimum 70% score at the Interview stage, will be compared. UNDP will award a contract to the individual who receives the highest score out of a predetermined weighted, Interview and Financial criteria as follows: 70% Interview criteria, 30% Financial criteria.

Table 1

Shortlisting Criteria		Maximum points*
1	Relevance of Education/ Degree- Civil Engineering or equivalent and be a registered engineer with a reputable Engineers Board or equivalent	10
2	Years of Relevant Experience- experience in design works, contract administration, contractor management, cost management and public works	50
3	Knowledge of the region- as a resident engineer on at least one construction project of comparable magnitude and /or in historic rehabilitation projects	45
4	Availability for the duration of the project	10

¹ See **Table 1** for Shortlisting Criteria for progression to the Interview Stage.

5	Proficiency in English and ability to write reports	10
Total		125

Once candidates have been shortlisted, i.e. they have attained a score of at least 70%, based on the requirements in the Terms of Reference, only then, would they be interviewed for the position.

At the interview stage, candidates must attain a score of 70% for their financial proposals to be evaluated.

The final evaluation process is based on a 70:30 weighting, with 30 points being allocated to the financial component.

The following formula (cumulative analysis) is used to determine the financial scoring: $p = y (\mu/z)$, Where:

p = points for the financial proposal being evaluated
y = maximum number of points for the financial proposal
μ = price of the lowest priced proposal
z = price of the proposal being evaluated

9. Deliverables

- i. Preparation of terms of reference for contracting of a consultant firm to undertake preparatory work: Design, detailed engineering and architectural designs; tender documents for renovation; and adaptation works for Maria Convent, Modular labs, Technical installations and infrastructure.
- ii. Review, evaluate and advise on design documents submitted by the consultant firm for the design, detailed engineering and architectural designs; tender documents for renovation; and adaptation works for Maria Convent, Modular labs, Technical installations and infrastructure.
- iii. Monitor and evaluate performance of services provided by contractors and design consultancy firm.
- iv. Responsible for ensuring the effective implementation, monitoring and supervision of the Maria Convent Building Complex renovated/refurbished and two (2) pre-fabricated buildings established to house the new SISSTEM Facility at the University of Aruba.
- v. Participate in the Evaluation Panel tasked with Bid review and contractor recommendation, in accordance with UNDP regulations, policies, rules and procedures.
- vi. Conduct a final inspection and adjust final accounts as necessary including final payments to the Contractor and release of retention monies, if applicable.
- vii. Perform other tasks related to the project implementation as may be requested by the Project Manager.