

**SOCIALIST REPUBLIC OF VIETNAM  
MINISTRY OF EDUCATION AND TRAINING**

**Loan No: 2750/2751-VIE:**

**University of Science and Technology of Hanoi Development  
(New Model University) Project**

**REQUEST FOR EXPRESSION OF INTEREST**

**Package: Architects and Engineering Consultants  
(AEC)**

**Selection method: Quality-Based Selection (QBS)**

**Reference: 2750/2751-VIE: PMU-USTH-CS-007**

**Date of issue: 24 February 2014**

**Implementing Unit: Project Management Unit - University of Science and  
Technology of Hanoi Development (New Model University) Project**

## Section I: Request for Expression of Interest

1. The Government of Viet Nam has received loans from the Asian Development Bank (ADB) toward the cost of the University of Science and Technology of Hanoi Development (New Model University) Project, and it intends to apply part of the proceeds of this loan, to payment under the contract for consulting services of Architects and Engineering Consultant (AEC).
2. The PMU-USTH, Ministry of Education and Training, now invites eligible consulting firms to express interest in providing the consulting services. The Architects and Engineering Consultant will be selected through a competition managed by an Architecture Design Competition Management (ACDM) Consultant. This to select the best architectural design which meets the requirements on beauty, planning, architecture and construction, landscape, technical quality, aesthetics, functions and economic use of the University of Science and Technology of Hanoi Development (New Project University) Project, reaches the standards of international top-ranking universities and suitable with the conditions of Vietnam. The ADCM will shortlist six (6) Architect and Engineering Consultant (AEC) firms according to the criterion described in point 4 under, then through a competition will select a qualified AEC firm to do the planning and architectural design of USTH's construction work at reasonable design costs. A full description of services is detailed in the outline of Terms of Reference (TOR) which can be downloaded from the ADB website. The services are expected to be carried out commencing from 2015 and are expected to be completed by end of 2017.
3. The selection will be done through a Quality-Based Selection (QBS) method pursuant to *Guidelines on the Use of Consultants by Asian Development Bank and its Borrowers* (March 2013 as amended from time to time).
4. The EOIs will be evaluated based on (i) eligibility; (ii) conflict of interest; (iii) licensed as Architects and Engineering Consultants as regulated by the country where the firm is registered; (iv) management competence; (v) technical competence; and (vi) geographical competence.
5. Interested firms should download the form for Expression of Interest (EOI) and TOR from ADB website: <http://csrnl.adb.org/csrnl/home.htm?page=mainPage> or submit a letter of request to the address given below. All the EOIs must be submitted through Consulting Services Recruitment Notice (CSRNL) website of ADB. The deadline for submission of EOI is on March 27<sup>th</sup>, 2014.

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## **Abbreviations**

ADB	Asian Development Bank
AEC	Architects and Engineering Consultants
ADCM	Architecture Design and Competition Management
BCC	Buildings Construction Contractor
BDF	Bidding Forms
BOQ	Bill of Quantities
COF	Contract Forms
EA	Executive Agency
ELC	Eligible Countries
EOI	Expression of Interest
ETZ	Education and Training Zone
EXP	Experience Form
GSC	Geological Survey Consultant
HHTP	Hoa Lac High Tech Park
ICB	International Competitive Bidding
JV	Joint Venture
MCs	Main Contractors
MOET	Ministry of Education and Training
PMU	Project Monitoring Unit
PMU-USTH	Project Monitoring Unit, University of Science and Technology of Hanoi Development (New Model University) Project
PMSC	Project Management and Supervision for Construction (consultant)
QBS	Quality-Based Selection
REOI	Request for Expression of Interest
TOR	Term of Reference
SBD	Standard Bidding Document
SIC	Services and Infrastructure Contractor
UIU	University Implementing Unit
USTH	University of Science and Technology of Hanoi Development (New Model University) Project
VIE	Socialist Republic of Vietnam

## Section II: Outlines of Term of Reference (TOR)

### I. Project Background

1. The University of Science and Technology of Hanoi Development (New Model University) Project (the Project) is being implemented by the Ministry of Education and Training (MOET) with funds from the Asian Development Bank (ADB) and counterpart fund from the Government of Viet Nam. The objective of the Project is to establish the University of Science and Technology of Hanoi (USTH) to become a leading training and research Centre at regional and international standards. The total Project budget is 210 million USD and planned to be implemented from 2012 to 2017.
2. The Project consists of four major outputs:
  - **Output 1: An Effective Management and Governance System for the University of Science and Technology of Hanoi Developed and Implemented.** This Output aims at setting up effective management and governance systems for the USTH, with capacity building programs for the university leaders and managers that help enhance their understanding on the leadership and management roles which are required for an autonomous and international standard university.
  - **Output 2: Systems to Promote High Quality and Relevance in Academic Programs at the University of Science and Technology of Ha No Developed and Implemented.** This Output aims at establishing a Centre of Excellence for Teaching and Learning, a Quality Assurance Centre, an Academic Management System, a Research Support Centre, an Industry Engagement Centre, and a Centre for Laboratory Management and laboratory equipment.
  - **Output 3: Physical Facilities at University of Science and Technology of Hanoi Constructed and Outfitted.** This Output aims at constructing the USTH campus in a site of 65 ha with modern facilities at international universities standards. Due consideration is also taken to assure that the construction complies with construction standards and norms of Vietnam.
  - **Output4: Effective Project Management and Implementation.** Ministry of Education and Training sets up a project management unit for the Project at ministerial level (PMU-USTH) and a project management unit for the Project at university level (UIU) with corresponding tasks and responsibilities for implementing the Project. UIU is responsible for implementing Outputs (1) and (2) and relevant activities in Output (4). The PMU-USTH is responsible for implementing Output (3) and relevant activities in Output (4).
3. The Architects and Engineering Consultant (AEC) (a consulting firm) assignment, which is a component of Output 3, aims at assuring that the architecture design of the work shall meet the Project's objectives. PMU-USTH has signed a contract with an ADCM to select a qualified AEC firm to do the planning and architectural engineering designs of USTH's construction works at reasonable design costs within the overall implementation schedule and the project's budget.
4. Expected scale of USTH's campus:
  - i) Construction budget: around US\$98.5 million (excluding taxes).
  - ii) Expected outcomes: Complete construction of USTH's new campus by 11/2017 on 65 ha site of the Education and Training Zone located inside Hoa Lac High Tech Park; with modern facilities, ensuring environmental

sustainability and effective use of the loan and the Vietnam Government's counterpart funds.

- iii) USTH project will be built with a total floor size of around 243,600 m<sup>2</sup>, satisfying a training scale of 5,000 students in 2020 and future development expansion with a training scale of 15,000 students in 2030.
- iv) Expected buildings inside the campus include:
  - **Zone A:** Administration- facilities for conference – university club – office of the Rector board – learning support center (library).
  - **Zone B:** Academics and Research – HASS department – biotechnology and pharmaceutical department – material sciences and nanotechnology department – energy department – departments of water, environmental and oceanography – IT and communication department - aerospace department – shared facilities of undergraduate and postgraduate level – common and typical training areas.
  - **Zone C:** Dormitory and Student activities: in-door sport – out-door sport – dormitories...
  - **Zone D:** Services and Infrastructure: waste management – power distribution – maintenance and storage – security and life safety center – infrastructure: parking area; passenger road; landscape; service network...
- v) The design of USTH's campus must ensure the following principles: modern designs with traditional and cultural characteristics; serve the purposes of using full capacity; serve teaching purposes, satisfy demands of all subjects studying in the University, and eco friendly architecture with accessibility to disable students and staff. At the same time, the design must satisfy requirements of flexibility, diversity and future expansion. Planning Design must consider USTH's long-term development in the future; reserve ratio of land and supporting areas must be suitable with development strategy in different stages; land for buildings accounts for no more than 45% of the campus's total area.
- vi) Average Scale of land-use (with a training scale of 5,000 students in 2020):

Item	Space schedule	Average Total floor area (m <sup>2</sup> )
	<b>SECTION A – ADMINISTRATION</b>	21,500
	<b>SECTION B – TRAINING AND RESEARCH</b>	79,700
	<b>SECTION C – DORMITORY AND STUDENTS' ACTIVITIES</b>	62,780
	<b>SECTION D – SERVICES AND FACILITIES</b>	79,600
	<b>Total</b>	243,600

## II. Objectives of the Assignment:

5. In order to select the best AEC which meets the requirements on beauty, planning, architecture and construction, landscape, technical quality, green energy, esthetics, functions and economic use of the USTH, to reach the standards of international top-ranking universities and suitable with the conditions of Vietnam, the ADCM will assist the PMU-USTH in organizing an Architectural Design Competition, and select a qualified firm (AEC) to do the planning and architectural design of USTH's construction work at reasonable design costs.

6. The AEC will be a consortium of architects, design and engineering consultants selected via QBS through an architectural design competition, which will be managed by an ADCM firm and the Owner. The selected AEC will develop detailed drawings and specifications, including interior design to form part of the tender documents for the selection of the Main Contractors (MCs). The selected AEC will provide:
  - i) Technical expertise in architectural planning and detailed drawings, including urban design; building services engineering; landscape engineering; traffic planning engineering; civil/infrastructure engineering; structural design engineering; laboratories design; fire safety engineering; acoustic engineering; mechanical, electrical, hydraulic and lighting engineering; and interior drawings, to guide the construction (based on the winning architectural concept as awarded);
  - ii) Technical expertise for Green Building Design pursuant to Lotus Non-Residential – V1.0 and QCXDVN 9: 2005 Energy Efficiency Building Code (EEBC), landscaping and appropriate certification with international standards for this expertise;
  - iii) Supervision as necessary to ensure construction adherence to design drawings and standards specified (according to Decree No. 15/2013/NĐ-CP promulgated by the Government on 06/02/2013 on Quality Control of Building);
  - iv) Liaison with the Project Management and Supervision for Construction (PMSC) consultant, PMU-USTH and UIU as appropriate to coordinate the design and works schedules;
  - v) Liaison with UIU to support end-user input into final design specifications and complete final interior drawings, refinement of facilities schedules and design requirements of laboratory, lecture halls, service buildings (canteen, sport centers...);
  - vi) Assurances that provisions for in-campus roads (including limits on total roadway area, security requirements and vehicular usage) that are included in the design brief are adhered to in the architectural specifications.
7. Presentation components: presentation of planning alternatives and synthesizing technical norms of the planned zone; presentation of architectural alternatives; generally estimate total investment on buildings and other materials (if any). The design presentation must clearly show following contents:
  - i) Main concept of the designer;
  - ii) Suitability of the alternatives compared to the task requirement;
  - iii) Compute the major parameters of the alternatives;
  - iv) Land-use planning;
  - v) Transport and Traffic layouts;
  - vi) Architectural and landscape layout;
  - vii) Suitability of the design to current laws on environment, fire safety, infrastructure;

- viii) Designing solutions of major structures, foundation, construction technology, materials, technical solutions and special technology (if any);
- ix) Presentations on power and lighting LED system, lightning protection system, water supply and drainage, ventilation, communication network, audio and visual systems, camera, intelligent operation management system (BMS), elevator, indoor and outdoor fire safety, waste treatment.
- x) Feasibility of the alternatives;
- xi) Other Presentations (if any).

Note: Presentation on solution for Green Buildings.

8. Contents of the layouts:

- i) Site Plan: Master plan 1/2000
- ii) Layouts or diagrams presenting the following contents: capacity; transport and traffic layout; ventilation system; lightning concept; heat insulation; especially layouts presenting alternatives;
- iii) Plans scale 1/100 – 1/200: floor plans; elevations; sections; diagrams presenting preliminary solutions of structures; technology and building facilities; transport and traffic layout of each work combined with general planning of each parcel and its traffic flow;
- iv) In case the architectural design requires use of special structure (length, height, span...) special material or special technical solutions, the AEC must include layouts of key architectural designs of special structures, special technical systems or technology;
- vi) Colored perspective layouts: Master perspective; perspective conformable to space axis or open space; angle perspective; interior perspective of key works such as great hallways...

9. Models of the master planning and architectural alternatives must be convenient for Investor and Jury to evaluate.

**III. Scope of work**

10. The firm Scope of work includes planning, finalizing the investment project and basic design, detailed design, technical design, construction design, bill of quantity per building and for all the Zones, cost estimate and total investment estimate of the project within the approved project's budget.

- i) Phase I: Complete selected architectural design application; detailed planning 1/2000 and 1/500.
- ii) Phase II: Basic Design and set the cost investment of the project
- iii) Phase III: detailed technical and construction design, cost estimate and total investment estimate of the project.
- iv) In addition, according to Vietnam Law, the AEC shall be responsible for design compliance supervising the contractors during the execution/construction process.

**1. Phase I: Detailed planning 1/2000 and 1/500**

11. Based on architectural alternative accepted by the Owner, the AEC shall complete the architectural alternative after receiving comments of the Owner and Jury, set up

detailed planning of USTH with a general estimate of the construction but not exceeding the budget approved by the Owner. Scope of works includes:

- i) Analyze, evaluate natural conditions, land status, inhabitants, society, architecture, landscape, infrastructure of the site; regulations of the overall plan, section plan of Hoa Lac High Tech Park related to USTH site; and information given by the Owner.
- ii) Update forecasting of the student number and floor area based on the Project Preparatory Technical Assistance (PPTA, available on ADB Web Site) and by the Space Scheduler, as well as development orientation of USTH;
- iii) Land-use planning: define functions and norms for land-use, such as construction density, floor site ratio, building height, setbacks for each parcel;
- iv) Architectural planning: identify height and form of buildings, main color, building construction and envelope materials; layout of public trees, gardens and landscape area, street trees and water surface of the study area.
- v) Engineering infrastructure planning: Based on orientation of Hoa Lac High Tech Park's infrastructure plan, the AEC shall identify:
  - a. the ground floor elevation for each parcel and national elevation in the region
  - b. the transportation and traffic network, roadway cross-section, location and size of parking area; include forecasting on traffic demand and its impacts;
  - c. the water demands and supply sources; location and size of water pumping stations; water pumping network and detailed parameters;
  - d. the demand of power usage and supply sources; location and size of the transformer and generator stations; power networks and street lighting;
  - e. the demands on communication network;
  - f. the capacity of wastewater and solid waste; water drainage network; location and size of wastewater treatment facilities.
  - g. General estimate of investment so long as the investment does not exceed the budget approved by the Owner.
- vi) The AEC (consulting firm) has to nominate as a minimum the internal experts or the team member who will provide the following expertise in: pedagogy; urban design; architectural design; interior design; sustainability and environmental design; laboratory design; acoustic design; mechanical, electrical, hydraulic engineering; fire engineering; civil and structural engineering; traffic engineering; quantity surveyor; etc.
- vii) Regulations on drawings and reports: planning application composed of planning presentation, land-use planning layouts, space allocation, architectural landscape, facilities.
- viii) Assist in the submission of documents for approval: the AEC shall assist the Owner during submission of detailed plans for approval such as participating



in report meeting, explaining and clarifying for Management Unit of Hoa Lac High Tech Park.

## **2. Phase II: Basic design:**

12. According to Government's regulation (Decree 15/2013/ND-CP) the AEC shall have to support USTH PMU in compiling the survey reports done by the Survey Consultant (SC), for Client's approval, before the AEC could commenced his detailed drawings. A national geological survey company (Geological Survey Consultant) will do topography survey 1/500 and subsoil works.
13. Design standards: The AEC shall analyze and recommend the design standards and code applicable for the project, including standards on university architecture, structure, mechanical and electrical (M&E) items and infrastructure. Standards and codes shall be based on Vietnamese and international standards accepted by the Ministry of Construction. Specific standards or standards which have not been applied in Vietnam, such as standards on laboratories, must be submitted to Ministry of Construction for approval.
14. Architecture, interior and landscape alternatives: based on approved design solutions, the AEC shall develop detailed architectural alternatives for each building of the university. Detailed alternatives shall be made in 3D to facilitate Client's evaluation and selection. Selected detailed architecture alternative shall be considered a base for development of structure and mechanical and electrical systems. Regarding interior solutions, the AEC shall also design in 3D. Detailed architectural alternatives must follow principles of green buildings and convenient for the disability's approach.
15. Basic design of selected architectural alternative includes layout, architectural layout plan, typical floor plan, sections, elevations, and architectural typical details.
  - i) Structural alternatives:
    - a. The AEC shall select and recommend structural alternatives for each building based on analysis and comparison among recommended alternatives on aspects of structure, construction technology, cost (life-cycle cost included), construction ability and maintenance.
    - b. Basic design must present the structural analysis, the combination of loads on building, include the dead load, live load, wind load, earthquake loads, loads for special cases of laboratory and library. The design must show layout of typical floor, sections, typical structural components such as foundation, beam, column, slab, details of typical structure.
    - c. The AEC shall set up an alternative for environmental protection, fire safety, energy use according to regulations on safety, fire safety to limit impacts on environment and energy saving.
  - ii) Mechanical and Electrical (M&E) system:
    - a. The AEC shall give modern technological solutions, which have been applied for public buildings and university, and analyze strong and weak aspects of the alternatives, cost (life-cycle cost included), maintenance, environmental impacts.

- b. The detailed design must compose of capacity calculation of Mechanical & Electrical systems, including electrical system, air-conditioning and ventilation (HVAC) system, water supply and drainage (plumbing) system, conveying system, fire protection, internet system: Wi-Fi, information, public audio and visual, building management system, CCTV on access control, waste treatment, with special attention to laboratory and public canteen... Typical schematic diagram of these systems and general layout must also be shown in the design.
- iii) Infrastructure design:
- a. The AEC shall update and review the connection with Hoa Lac High Tech Park's infrastructure system to ensure suitability of university's capacity and scales with transport system, site grading, water supply and drainage system, power and communication system of the Hoa Lac High Tech Park.
  - b. The AEC shall develop a plan for the site grading, horizontal plan, typical vertical and cross sections of engineering infrastructure on road transport, water supply and drainage, external lighting, power system, general layout and schematic design of wastewater treatment, water-pumping station and power transformer station, drawing of typical structure of drainage pipes/culverts.
- iv) Total investment and source of capital:
- a. The AEC shall update and set up a total investment plan for the project based on the selected alternatives of architecture, structure, M&E system and infrastructure as well as unit price applied for the project
  - b. The AEC shall also support the Client during approval of the detailed planning, attend meetings to report on the master plan, explain and clarify with the Client and concerned authorities.

### **3. Phase III: Detailed design and construction design**

**16. Additional survey for technical design phase:** The AEC shall consider and recommend additional survey to provide data for the technical design phase. Cost and scope of additional survey must be considered and agreed by Client beforehand.

#### **17. Engineering design document**

- i) Architectural design and landscape:
  - a. Use basic design to update and develop a general layout for each building, layout of floors, layout of specific areas, elevation, sections and architectural details, construction and interior materials; facade design (if any); design of windows and doors, design of ceiling system.
  - b. Update and calculate the floor area.
  - c. Identify and analyze internal building's traffic circulation and detailed design of conveying/ vertical transport system (elevators, escalator, conveyor)

- d. Landscaping design includes gardens of each building and university's landscape (street trees, sport area, open space and gardens.)
  - e. Access Control and Site Security.
- ii) Structure design:
- a. Update and calculate combination of loads, set up detailed structure plans of buildings, analyze and calculate structure of selected solution. Identify construction materials, design buildings' structure parts such as foundation, beam, column, slab, and roof.
  - b. Set up structural layout, sections and structural details.
- iii) Design of M&E items: Indoor engineering infrastructure systems include electrical power system, lighting LED system, internet system: Wi-Fi, air-conditioning and ventilation system (HVAC) (information, public audio and visual, building management system), CCTV on access control, indoor and outdoor fire safety, waste treatment, water supply and drainage system... The AEC shall:
- a. Update and calculate required capacity of the above mentioned systems
  - b. Calculate and identify building's life span and maintenance process suitable with regulations of Vietnam.
  - c. Set up an engineering design, including: schematic diagrams of M&E systems; detailed layout for each system (circuit, wire/cable and equipment) as well as combination of the systems by the buildings' floors; drawing of each system's details, supporting and hanging sets, materials and equipment schedule of each system; and count materials and equipment of each system.
- iv) Engineering Infrastructure system: based on the basic design, the AEC shall update and calculate infrastructure system (ground elevation and site grading, cross section of roads, sizes of water supply pipes, waste water treatment stations, water pumping stations, lighting system, external power system, transformer and generator stations, communication system, parking area.
- v) Detailed plans of infrastructure items showing following specifications:
- a. Site grading: elevation and grading for each parcel of the project, details of slope, retaining wall;
  - b. Transport: horizontal alignment, vertical alignment, detailed cross section, traffic management, signal light, structure of roadway pavement and sidewalk;
  - c. Water supply and drainage: horizontal alignment, vertical alignment, detailed cross section, sewer structure, manhole, and bridge;
  - d. Lighting: layout arrangement of wire and cable, details of lighting system, structure of foundation and lighting –poles;
  - e. Underground power system: linear layout;

- f. Wastewater treatment station, water pumping station, transformer and generator stations, parking lot.

**18. Total cost estimate**

- i) Within the approved budget of the project: the detailed cost estimate of the project will be the basis of cost control for the Client;
- ii) The AEC will develop the detailed cost estimate per packages (buildings) through bill of quantity and total cost estimate of the project according to the Government regulations;
- iii) Cost estimate is developed on the basis of quantities of detailed design drawings and the unit price applicable to the project. The construction unit prices are computed on the basis of the norms issued by authorities; State's regulations on salary in construction sector and the prices of materials, labor and construction machineries in Hanoi;
- iv) The equipment unit prices are taken by referenced costs of equivalent equipment with required specifications.

**19. Construction design**

- i) Pursuant to the approval by the Owner, the AEC will develop construction design drawings for the work items of USTH construction.
- ii) The Design must reflect the full range of specifications, materials to be used and constructional details in accordance with the applied standards to ensure full conditions to deploy construction works.
- iii) The construction designs and bills of quantities approved by the Owner will be the basis for tender.

**20. Design document requirements: drawing, design report, technical specification**

- i) "Design document" composed of drawings, presentation describing design content and methodology, technical specification on standards of materials and equipment, construction process, checking and acceptance.
- ii) Drawing specifications must follow standards of Vietnam. For both 2 phases, A1 drawing shall be used; space layout, elevation and vertical elevation of residential buildings are made a scale of 1/100; infrastructure building: 1/500 for liner layout and 1/100 for details and horizontal elevation.

**21. Assist the Client in design review and approval process**

- i) According to the Government regulations, the detailed designs and working drawings will be reviewed by the Construction Authority (Ministry of Construction) before approval.
- ii) The Fire fighting Authority will certify the Fire fighting design system.
- iii) The AEC will assist the Owner in implementing those activities in his task, namely participating in Work Plan Report Seminar, explaining, clarifying and

completing the design in accordance with the Authority's recommendations if required.

## **22. Compliance supervision:**

- i) According to the Government regulations, the AEC with the PMSC is responsible for compliance supervision during construction.
- ii) The AEC will conduct regular reviews at site; participate in implementing of acceptance of works in important phrases in order to assure the compliance with the design.
- iii) The Consultant will also participate in design adjustment in case of changes in the design that may affect the basic design and total cost estimate (Pursuant to Decree No. 15/2013/ND-CP promulgated by Government on 06/02/2013 on Quality Control of Buildings).

## **IV. Team Composition and Qualifications Requirements**

### **23. Requirements on qualifications of architecture engineering and design consulting firms:**

- a. AEC firms should have more than 5 years of experience in global operation in architecture design consulting and be awarded with more than 01 prize in international architectural competition.
- b. AEC firms with experience in 2 or more university projects of similar scale (*project of civil works with construction cost of more than \$100 million.*) will be advantage.
- c. AEC have personnel specialized in disciplines of construction designing (including one science and technology university will be advantage) and satisfy requirements of architectural consulting organization Level 1 as required in Article 49, Decree No. 12/2009/ND-CP (at least 20 architects/engineers with relevant majority, among whom one satisfies requirements of a Construction Design Director Level 1, or equivalent); have quality management system and quality control division; firms certified with ISO 9001-2008 are encouraged. The AEC is to nominate as a minimum the internal expert or the team member (consultant Firm) who will provide the following expertise in:
  - i) Pedagogy
  - ii) Urban Design,
  - iii) Architectural Design;
  - iv) Interior Design;
  - v) Sustainability and environmental design;
  - vi) Mechanical, Electrical, Hydraulic Engineering,
  - vii) Fire Engineering,
  - viii) Civil and Structural Engineering,
  - ix) Traffic Engineering
  - x) Quantity surveyor
  - xi) AEC must have country experience, or in the Asian region, or permanent presence with local office.

- xii) AEC might be associated as joint venture or sub-consultancy with other AEC within Vietnam, as defined by ADB.

24. The AEC should demonstrate its ability to collaborate as a consortium of consultants.  
 25. An estimated **217 person-months of AEC services (International)** and **531 person-months of AEC Services (National)** will be required. Indicative personnel are listed below, though the final list will be determined at tender stage.

**Indicative AEC Consultant Requirements**

				Person Months		
				International	National	Total
1.	Team Leader/Senior architects	Architect/support		66	120	186
2.	Engineers			80	160	240
3.	Drafting personnel			71	141	212
4.	Administration and office services			-	110	110
<b>Total</b>				<b>217</b>	<b>531</b>	<b>748</b>

26. Indicative personnel, key positions and qualification are listed in the Table below, though the final list will be determined at tender stage.

No.	Positions	Qualification requirements
<b>A</b>	<b><i>International experts</i></b>	
	Team leader/Design Director	Must be an architect, 20 years of experience or more, being a Design Director for 2 international university development projects or more.
	Chief of Design Teams (architecture, structure, M & E, infrastructure, building services landscape, acoustic specialist)	Architect/Engineer (including one Science and Technology University Specialist is preferred): 15 years of experience or more, experience as field director for 2 or more projects with similar nature will be advantage
	Architect and Design Engineer	07 years of experience or more, experience as an expert for 2 or more projects with similar nature will be advantage
	3D graphics specialist	07 years of experience or more, experience as an expert for 2 or more projects with similar nature will be advantage. Skilled in 3D graphics software.
	Construction cost expert	07 years of experience or more, experience as a construction cost expert in 2 or more projects with similar nature will be advantage.
<b>B</b>	<b><i>National experts</i></b>	
	Deputy Director	15 years of experience or more, experience as a Design Director for 2 university development projects, being capable of using English (oral and written) will be advantage
	Architect and Design Engineer	At least 7 years of experience, having designed 02 similar project, being capable of using English (oral and written) will be advantage

	Economic-Construction Engineer: Quantity Surveyor	Preferred with 10 years of experience, must be a specialist in construction cost estimate, capable of using English (oral and written)
	3D graphics specialist	Preferred with 7 years of experience, having participated in 2 similar projects or more. Skilled in 3D graphics, capable of using English (oral and written)

#### V. Requirements on Reports and design outputs progress

27. As a minimum the following indicative drawings are listed in the table hereunder.

No.	Category	Submission progress (from Contract's effectiveness)
1	Detailed Site Layout Planning	2 months
2	Basic design and Investment Project Cost	5 months
3	Detail design of infrastructure (with cost estimate)	7 months
4	Detailed design of Buildings (with cost estimate)	9 months
5	Working Drawings of Infrastructure	9 months
6	Working drawings of Buildings	12months

28. According the schedule described in the table above, AEC will provide to the Client (PMU-USTH) 7 (seven) copies of all the planning/drawings and 2 CD ROM.

29. The entire courier, planning, drawings shall be delivered to the Client (PMU-USTH) in English and Vietnamese. **This is mandatory.**

30. **Equipment to be used by the AEC.** The AEC will have to describe which kind of software and equipment he will use, with at least following copyright software: AutoCAD, Revit, 3D max, SAP 2000, ETABS, Caculux, Dialux, Ecodial, E-force, Acitt 2007 and Plotter printer, printer, laptop, desktop, 3D projector, digital camera. AEC using a Building Information Modeling (BIM) system is required. Documentation in an integrated 3D modeling package is required. The documentation system should allow an integrated interface with the following as a minimum: facility Management systems and software; energy and water use management systems and software including the management of services/utilities costs, asset management systems and software

27. **Place of Assignment.** The place of assignment is Hanoi, Vietnam. The firm will have to take care of is own office space, installation and equipment.

#### VI. Client's Input and Counterpart Personnel.

28. PMU-USTH with his staff will provide assistance to the AEC.

#### VII. Client Project Data and Reports.

29. At time of the Request for Proposal (RFP) the Client will provide to the AEC with Project's supporting documents:

- i) Preparatory Project Technical Assistance (PPTA);
- ii) Space Schedule (edition 2014);

- iii) Feasibility Study;
- iv) Project Administration Manual;
- v) A map of the Education and Training Zone located inside Hoa Lac High Tech Park, including site plan in electronic format;
- vi) Planning requirements and regulations for the site including approval process;
- vii) Building approval process;
- viii) MOET approval process;
- ix) Strategic brief;
- x) Topographical Survey;
- xi) Geological/soil Survey;
- xii) Hydrological Survey;
- xiii) Flora and Fauna Survey;
- xiv) Utility supply survey – water – electricity – storm water – sewerage – gas (if any);
- xv) Green building requirements;
- xvi) Standards and regulations guiding technical facilities in addition to traditional building regulation;
- xvii) Meteorological and climate survey;
- xviii) Access survey to the site from Hanoi, by air and sea.



**Section III: Expression of Interest (EOI) Consulting Firms**

<b>Project Number</b>	<b>2750-VIE and 2751-VIE</b>
<b>Project Name</b>	<b>University of Science and Technology of Ha Noi Development Model University) Project</b>
<b>Project Country</b>	Vietnam

**I. Consulting Firm Information**

CMS No. <sup>1</sup> / date:	Country of Incorporation: <sup>2</sup>
Consultant Name:	Acronym:
EOI Submission Authorized by:	Position

**Associations (Joint Venture or Sub-consultancy)**

CMS No. <sup>1</sup>	Consultant	Acronym	Country of Incorporation <sup>2</sup>	Joint Venture (JV) or Sub-consultant	EOI Submission Authorized By	Position

Present the rationale for and benefits of working in association (JV or Sub-consultant) with others rather than undertaking the assignment independently (as appropriate). Describe the proposed management and coordination approach of the association and the role of each firm.

I confirm that:

- Documentation regarding our corporate structure including beneficial ownership has been attached.
- Documentation regarding our Board of Directors has been attached.
- A written agreement to associate for the purpose of this Expression of Interest has been signed between the consortium partners and has been attached.

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<sup>1</sup> If already registered on ADB's Consultant Management System (CMS). CMS registration is not mandated under EA-administered selection.  
<sup>2</sup> The lead consultant must submit a copy of the Certificate of Incorporation of itself and of each JV member and sub-consultant through VII. EOI Attachments.

Once your team is shortlisted and invited for submission of the Proposal, it is not permissible to transfer the invitation to any other firm, such as Consultant's parent companies, subsidiaries and affiliates. The Client will reject a Proposal if the Consultant drops a JV member without the Client's prior consent, which is given only in exceptional circumstances, such as debarment of the JV partner or occurrence of Force Majeure.<sup>3</sup>

**II. Assignment Specific Qualifications and Experience**

For online submission: Your EOI shall demonstrate technical competence and geographical experience based on project references entered in full registration under your CMS profile. We encourage you to update Project Information under your CMS prior to filling EOI.  
For offline submission: Please provide relevant project information in Section E below.

**A. Technical Competence**

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Cross-referencing from your profile projects in Section E. Project References, highlight the technical qualifications of your entity/consortium in undertaking similar assignments. Provide details of past experiences working with similar project authorities.

**B. Geographical Experience**

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Cross-referencing from your profile projects in Section E. Project References, present experiences in similar geographic areas.

**C. Management Competence (Please answer each question in one paragraph of 3-5 sentences)**

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1. Describe standard policies, procedures, and practices that your entity has to assure quality interaction with clients and outputs. Please state if your company is ISO certified.

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<sup>3</sup> Paras. 3 and 7, Section 1 of the Standard Request for Proposal (SRFP), ADB website.

2. How will your firm/consortium handle complaints concerning the performance of experts or quality of the reports submitted for this assignment? What internal controls are in place to address and resolve complaints?

3. How will you ensure the quality of your firm's/consortium's performance over the life of this assignment?

4. Describe standard policies, procedures and practices that your firm has put in place to avoid changes/replacements of personnel and to ensure the continuity of professional services once contracted.

5. Describe what social protection practices you have in place to safeguard the well-being of your proposed experts? Specifically describe arrangements you have in place for medical, accident, and life insurance coverage during the assignment.

**D. Other Information (maximum of 500 words)**

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**E. Project References**

---

Please select most relevant projects to demonstrate the firm's technical qualifications and geographical experience (maximum 10 projects).

SN	Project	Period	Client	Country	Firm
1					
2					
3					
4					
5					

6					
7					
8					
9					
10					

**Project Summary**

SN 1	
Project Title	
Country / Region	
Start Date	
Completion Date	
Continuous / Intermittent	
Client	
Funding Source	
Description	(indicate your role and input in person-months)

SN 2	
Project Title	
Country / Region	
Start Date	
Completion Date	
Continuous / Intermittent	
Client	
Funding Source	
Description	(indicate your role and input in person-months)

(Please insert more tables as necessary)

**III. Comments on Terms of Reference**

--

**IV. Comments on Budget Adequacy**

--

**V. Key Considerations in approaching this assignment (no more than 9,000 characters summarizing approach and methodology)**

--

**VI. Key Experts**

**List of experts is only required for Consultants' Qualifications Selection (CQS). Attach CV of each expert.**

SN	Name	Email	Position/Title	Nationality
1				
2				
3				
4				
5				

(Please insert more rows as necessary)

**VII. EOI Attachments**

SN	Description
1	Certificate of Incorporation of the lead member
2	Certificate of Incorporation of the JV member (for each member)
3	Certificate of Incorporation of the Sub-Consultant (for each sub-consultant)
4	Letter of Association
5	Project Reference Details

(Please insert more rows as necessary)

**VIII. Eligibility Declaration<sup>4</sup>**

We, the undersigned, certify to the best of our knowledge and belief:

- We have read the advertisement, including the terms of reference (TOR), for this assignment.
- Neither the consulting firm nor its JV member or sub-consultant or any of its experts prepared the TOR for this activity.
- We confirm that the project references submitted as part of this EOI accurately reflect the experience of the specified firm/consortium.

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<sup>4</sup> Eligibility refers to ADB's Guidelines on the Use of Consultants by Asian Development Bank and its Borrowers, Clause 1.13 together with Clauses 1.10-1.11 and 1.23-1.25 on integrity and anti-corruption policies.

- We further confirm that, if any of our experts is engaged to prepare the TOR for any ensuing assignment resulting from our work product under this assignment, our firm, JV member or sub-consultant, and the expert(s) will be disqualified from short-listing and participation in the assignment.
- All consulting entities and experts proposed in this EOI are eligible to participate in ADB-funded, -supported and –administered activities.
- The lead entity and JV member or sub-consultant are NOT currently sanctioned by ADB or other MDBs. Neither the consulting firm nor the JV member or sub-consultant has ever been convicted of an integrity-related offense or crime related to theft, corruption, fraud, collusion or coercion.
- We understand that it is our obligation to notify ADB should any member of the consortium become ineligible to work with ADB or other MDBs or be convicted of an integrity-related offense or crime as described above.
- JV member or sub-consultant, including all proposed experts named in this EOI, confirmed their interest in this activity in writing.
- JV member or sub-consultant, including all proposed experts named in this EOI, authorized us in writing to represent them in expressing interest in this activity.
- None of the proposed consortiums are subsidiaries of and/or dependent on the Executing Agency or the Implementing Agency or individuals related to them.
- We understand that any misrepresentations that knowingly or recklessly mislead, or attempt to mislead may lead to the automatic rejection of the proposal or cancellation of the contract, if awarded, and may result in further remedial action, in accordance with ADB's Anticorruption Policy.

**Appendix : Architecture Design Competition**

**I. Information on the Architectural Design Competition**

1. Shortlisted consultants will have to enter a design competition. The submission of an Urban Design and Architectural Design Proposal will be a substantial part of the Full Technical Proposal to be prepared by the Consultant.

**2. Prize Money:**

The client will provide the amount of 150,000 USD (including taxes) for prizes in respect of services rendered in preparing the design proposal. This sum will be distributed among those competitors having submitted the requested proposal.

The following prizes shall be awarded:

- 1st prize 45,000 USD
- 2nd prize 35,000 USD
- 3rd prize 25,000 USD
- 4th prize 20,000 USD
- 5th prize 15,000 USD
- 6th prize 10,000 USD

**3. Jury:**

The evaluation of the design proposals, including the selection of the prizewinners, shall be conducted by the design competition jury, which will be composed of the persons listed below.

**Architectural Jurors:**

- TBD, international architect
- TBD, international architect
- TBD, international architect
- TBD international landscape architect
- TBD, national architect

**General Jurors**

- TBD
- TBD
- TBD
- TBD

### **Deputy Architectural Jurors**

- TBD, national architect

### **Deputy General Jurors**

- TBD
- TBD
- TBD
- TBD

### **Technical Experts**

- TBD, Engineer, international expert for civil and building engineering,
- TBD, cost expert, from the Construction Economic Institute, Ministry of Construction, Hanoi/Vietnam

#### **4. Tentative Competition Time Schedule:**

- Consultant Selection Committee Meeting (shortlisting) April 2014
- Distribution of Request for Proposal May 2014
- Pre-bid conference incl. site visit (in Hanoi) June 2014
- Proposal submission deadline July/August 2014
- Design Competition Jury Meeting September 2014

## **II. Specific EOI submission requirements**

#### **5. ADB EOI form**

Interested Consultants must submit the standard ABD EOI form with input from the Consulting firm's ADB CMS profile.

#### **6. Proof of Professional Proficiency**

Designated Team leader/Design Director must submit proof of professional proficiency (usually registration in chamber of architects or equivalent)

#### **7. Project References – additional information form**

In addition to general requirements for the Expression of Interest (EOI) as shown in section Section III: Expression of Interest (EOI), interested consultants shall provide additional information on their project references (as cross referenced in ADB CMS) in order to allow for evaluation of assignment specific qualifications and experience for A. Technical Competence.



i) For this purpose the pdf form “**Project References Details**” shall be filled requesting the following project references information:

list of maximum 6 project references (in case of joint venture: per joint venture)

- a. max. 4 in architecture/urban design
  - b. max. 2 in landscape architecture
- i. including information on project type, project title (in reference to ADB CMS project reference title), type of function, project size, construction costs, assigned services, project size, information whether the project has been realized, information whether the project is a competition result, information whether the project is a new construction or a modification of an existing structure, design task complexity.

The Project References – additional information form will be provided as pdf form file in the ADB CMS.

Submission of the filled pdf form file via ADB CMS is mandatory.

8. **Project references - six landscape-format A4 sheets** (in case of joint venture: per joint venture) printed on one side with illustrations and basic explanatory text, only, concerning the reference projects typical for the design style of the architecture/urban design and landscape architecture disciplines of the consultant. The sheets shall show those 6 project references mentioned above in section i).

Submission of pdf files of project references A4 sheets via ADB CMS is mandatory. Resolution shall be 300 dpi.

**Project References Details Form**

Request for Expression of Interest – Attachment 1

**Form: Project Reference Details**

Single Firm or Joint Venture

- please fill all  fields on the right-hand side - select from drop-down menu, if applicable -

**Reference Architecture/Urban Design # 1**

<b>1 Type of project reference</b> <sup>1)</sup>	
<b>2 Firm/organization name</b> <sup>2)</sup>	
<b>CMS Number</b>	
<b>3 Project reference title</b> <sup>3)</sup>	
<b>4 Type of function</b> <sup>4)</sup>	
<b>5 Project size in ha</b> <sup>5)</sup>	
<b>6 Project size in sq m GFA</b> <sup>6)</sup>	
<b>7 Project size in sq m UA</b> <sup>7)</sup>	
<b>8 Construction costs in USD</b> <sup>8)</sup>	
<b>9 Service phases</b> <sup>9)</sup>	<b>ph1      ph2      ph3      ph4      ph5</b>
<b>10 Competition result</b> <sup>11)</sup>	
<b>11 New/modification</b> <sup>12)</sup>	
<b>12 Design task complexity</b> <sup>13)</sup>	

**Reference Architecture/Urban Design # 2**

<b>1 Type of project reference</b> <sup>1)</sup>	
<b>2 Firm/organization name</b> <sup>2)</sup>	
<b>CMS Number</b>	
<b>3 Project reference title</b> <sup>3)</sup>	
<b>4 Type of function</b> <sup>4)</sup>	
<b>5 Project size in ha</b> <sup>5)</sup>	
<b>6 Project size in sq m GFA</b> <sup>6)</sup>	
<b>7 Project size in sq m UA</b> <sup>7)</sup>	
<b>8 Construction costs in USD</b> <sup>8)</sup>	
<b>9 Service phases</b> <sup>9)</sup>	<b>ph1      ph2      ph3      ph4      ph5</b>
<b>10 Competition result</b> <sup>11)</sup>	
<b>11 New/modification</b> <sup>12)</sup>	
<b>12 Design task complexity</b> <sup>13)</sup>	

Request for Expression of Interest – Attachment 1

**Form: Project Reference Details**

Single Firm or Joint Venture

**Reference Architecture/Urban Design # 3**

<b>1 Type of project reference</b> <sup>1)</sup>	
<b>2 Firm/organization name</b> <sup>2)</sup>	
<b>CMS Number</b>	
<b>3 Project reference title</b> <sup>3)</sup>	
<b>4 Type of function</b> <sup>4)</sup>	
<b>5 Project size in ha</b> <sup>5)</sup>	
<b>6 Project size in sq m GFA</b> <sup>6)</sup>	
<b>7 Project size in sq m UA</b> <sup>7)</sup>	
<b>8 Construction costs in USD</b> <sup>8)</sup>	
<b>9 Service phases</b> <sup>9)</sup>	ph1      ph2      ph3      ph4      ph5
<b>10 Competition result</b> <sup>11)</sup>	
<b>11 New/modification</b> <sup>12)</sup>	
<b>12 Design task complexity</b> <sup>13)</sup>	

**Reference Architecture/Urban Design # 4**

<b>1 Type of project reference</b> <sup>1)</sup>	
<b>2 Firm/organization name</b> <sup>2)</sup>	
<b>CMS Number</b>	
<b>3 Project reference title</b> <sup>3)</sup>	
<b>4 Type of function</b> <sup>4)</sup>	
<b>5 Project size in ha</b> <sup>5)</sup>	
<b>6 Project size in sq m GFA</b> <sup>6)</sup>	
<b>7 Project size in sq m UA</b> <sup>7)</sup>	
<b>8 Construction costs in USD</b> <sup>8)</sup>	
<b>9 Service phases</b> <sup>9)</sup>	ph1      ph2      ph3      ph4      ph5
<b>10 Competition result</b> <sup>11)</sup>	
<b>11 New/modification</b> <sup>12)</sup>	
<b>12 Design task complexity</b> <sup>13)</sup>	

Request for Expression of Interest – Attachment 1

**Form: Project Reference Details**

Single Firm or Joint Venture

**Reference Landscape Architecture # 1**

<b>1 Type of project reference</b> <sup>1)</sup>	
<b>2 Firm/organization name</b> <sup>2)</sup>	
<b>CMS Number</b>	
<b>3 Project reference title</b> <sup>3)</sup>	
<b>4 Type of function</b> <sup>4)</sup>	
<b>5 Project size in ha</b> <sup>5)</sup>	
<b>6 Project size in sq m GFA</b> <sup>6)</sup>	
<b>7 Project size in sq m UA</b> <sup>7)</sup>	
<b>8 Construction costs in USD</b> <sup>8)</sup>	
<b>9 Service phases</b> <sup>9)</sup>	ph1      ph2      ph3      ph4      ph5
<b>10 Competition result</b> <sup>11)</sup>	
<b>11 New/modification</b> <sup>12)</sup>	
<b>12 Design task complexity</b> <sup>13)</sup>	

**Reference Landscape Architecture # 2**

<b>1 Type of project reference</b> <sup>1)</sup>	
<b>2 Firm/organization name</b> <sup>2)</sup>	
<b>CMS Number</b>	
<b>3 Project reference title</b> <sup>3)</sup>	
<b>4 Type of function</b> <sup>4)</sup>	
<b>5 Project size in ha</b> <sup>5)</sup>	
<b>6 Project size in sq m GFA</b> <sup>6)</sup>	
<b>7 Project size in sq m UA</b> <sup>7)</sup>	
<b>8 Construction costs in USD</b> <sup>8)</sup>	
<b>9 Service phases</b> <sup>9)</sup>	ph1      ph2      ph3      ph4      ph5
<b>10 Competition result</b> <sup>11)</sup>	
<b>11 New/modification</b> <sup>12)</sup>	
<b>12 Design task complexity</b> <sup>13)</sup>	

## Request for Expression of Interest – Attachment 1

### Form: Project Reference Details

Single Firm or Joint Venture

#### Footnotes:

- 1) "Architecture" or "Urban design" for respective references, "Landscape Architecture" is pre-selected for respective references.  
No other types of references are requested in this form.
- 2) enter Name of firm/organization who was responsible for respective reference as stated in ADB CMS
- 3) as cross referenced in ADB CMS List of Project References
- 4) in case of Urban design = "Urban Design" in case of other: select type of function
- 5) Category "References Architecture/Urban Design": to fill for "Urban Design" references only.  
Enter site area not GFA.  
  
Category "References Landscape Architecture":  
Enter site area.
- 6) Gross Floor Area -  
Applicable for category "References Architecture/Urban Design", only  
  
Category "References Landscape Architecture": not applicable
- 7) Usable Area  
Category "References Architecture/Urban Design": to fill for "Architecture" references only.  
  
Category "References Landscape Architecture": not applicable
- 8) Category "References Architecture/Urban Design":  
Cost for building construction incl. technical equipment only. w/o costs for design, consultancy, land acquisition, landscaping, etc.  
  
Category "References Landscape Architecture":  
Cost for landscaping construction and vegetation, only. w/o costs for design, consultancy, land acquisition, buildings, etc.
- 9) service phases:  
  
ph 1: Schematic design  
ph 2: Design development  
ph 3: Construction documents  
ph 4: Bidding/negotiation, permit  
ph 5: Construction administration  
  
tick box if service phase was rendered
- 10) realized: in operation or shell construction (if applicable) completed
- 11) Was the project a result of a design competition?
- 12) New construction or modification of existing structure?
- 13) demands made on the complexity of the design task:  
I - very low  
II - low  
III - average  
IV - high  
V - very high