

REQUEST FOR PROPOSALS

Issue Date: April 4, 2017

RFP#: VT-FS-208-2017-02

Title: Feasibility Study to Evaluate Facility Options to Construct a New Global Systems Science (GSS) Building

Commodity Code: PROFESSIONAL SERVICES

NOTE: The offeror must have registered in eVA prior to the deadline for submission of responses to this RFP to be eligible for the award of this contract for professional services.

Issuing Agency & Address: Commonwealth of Virginia
Virginia Polytechnic Institute and State University (Virginia Tech)
Bob Blackwell, Contracts Officer
University Design and Construction (0129)
20 Sterrett Facilities Complex
230 Sterrett Drive
Blacksburg, VA 24061

Location of Work: Virginia Polytechnic Institute and State University

Period Of Contract: Single project services

All inquiries for information should be directed to:

Aaron Curfiss
Project Manager– University Design and Construction
University Design and Construction Department
Phone #: (540) 449-9148
Email: acurfiss@vt.edu

PROPOSALS CAN BE MAILED OR HAND DELIVERED TO:

Bob Blackwell
Contracts Officer
University Design and Construction (0129)
20 Sterrett Facilities Complex
230 Sterrett Drive
Blacksburg, VA 24061

Sealed proposals for furnishing the services described herein will be received until **5:00 p.m. EST on May 12, 2017**. **Proposals must reach the above address by the deadline stated.** Firms submitting proposals must be properly registered and licensed with the Virginia Department of Professional & Occupational Regulation (DPOR) as per Section 3.1.8.3 of the A/E Manual. For firms with multiple offices, **the specific office submitting the proposal must be properly registered and licensed with DPOR.** Proposals submitted by firms (or specific offices of firms) who are not properly registered and licensed shall not be considered.

In compliance with this Request For Proposals, which includes the attached Table of Contents and all provisions and appendices attached and referenced therein, and subject to all the terms and conditions set forth herein, the undersigned offers and agrees to furnish the services described in the RFP cited above and submit this signed proposal which includes this completed and signed page, the completed and signed Forms AE-1, AE-2, AE-3, AE-4, AE-5 and AE-6, form DGS-30-360, and other data as required by the RFP. It is understood that this proposal

and the scope of services may be modified, by mutual agreement in subsequent negotiations.

The undersigned further acknowledges that they are familiar with the Virginia Tech Campus Design Principles and agrees that, if selected for this project, will provide design submittals that fully comply with these principles.

Name and Address Of Proposer:

_____ Zip: _____
FEIN/SSN # _____

Date: _____
By _____
(Signature in Ink)
Typed Name: _____
Title: _____
Email: _____
Telephone No. (____) _____

DPOR/APELSCIDLA License # for Proposing Office Whose Address is Listed Above: _____

Acknowledge receipt of Addendums: _____, _____, _____, _____.

PRE-PROPOSAL CONFERENCE: A single non-mandatory pre-proposal conference will be held at **1:30PM on May 12, 2017 in the Sterrett Facilities Classroom** on the Virginia Tech campus. Potential offerers are encouraged to attend. University representatives will be in attendance to answer questions. Pre-proposal conference attendees should obtain a Virginia Tech parking permit prior to attending the conference. Parking permits are available from the Virginia Tech Parking Services Department located at 455 Tech Center Drive, phone: (540) 231-3200, email: parking@vt.edu.

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eVA BUSINESS-TO-GOVERNMENT VENDOR REGISTRATION: The eVA Internet electronic procurement solution, web site portal www.eva.state.va.us, streamlines and automates government purchasing activities in the Commonwealth. The portal is the gateway for vendors to conduct business with state agencies and public bodies. All vendors desiring to provide goods and/or services to the Commonwealth shall participate in the eVA Internet e-procurement solution either through the eVA Basic Vendor Registration Service or eVA Premium Vendor Registration Service. **The offeror must have registered in eVA prior to the deadline for submission of responses to this RFP to be eligible for the award of this contract for architectural/engineering services.**

I. APPLICABILITY OF THE A/E MANUAL

The A/E Manual, as defined in Section 1.0 of the Commonwealth of Virginia Construction and Professional Services Manual, shall be incorporated into the contract awarded pursuant to this RFP and is incorporated by reference herein in its entirety.

Proposer's attention is directed to Chapter 2, Definitions, for definitions of terms used in this RFP. The terms "Agency", "Owner", "university", and "Virginia Tech" are used interchangeably in the material referenced in this RFP and mean the public body issuing this solicitation for services and with whom the successful A/E Proposer will enter into an agreement.

II. PURPOSE

The purpose of this RFP is to solicit proposals for the purposes of entering into a contract through competitive negotiations for the professional services of an Architectural/Engineering firm, authorized to do business in the Commonwealth of Virginia, with experience in the programming, planning and design of facility(s) to support the Global Systems Sciences destination area on the main campus at Virginia Tech in Blacksburg, Virginia. These facilities are envisioned to embrace the university desire for interdisciplinary collaborative laboratory and classroom space that will include research laboratories and

instructional spaces where knowledge and scientific research is shared across biological, social, and physical sciences. Also included in this project will be a veterinary clinical service facility and BSL-2 laboratories that will make possible an expansion of translational research and education programs.

Additionally, space to consolidate and support an overarching 'School' structure to unify and streamline the plant and environmental sciences currently distributed across several CALS departments. These departments share many collaborative faculty teams, and are already working on revised curricula at both undergraduate and graduate levels to reflect the increasingly integrative approaches used in plant and environmental science research programs.

Should the project progress beyond the initial feasibility study, the university reserves the right to engage in a separate contract(s) with the successful A/E firm for additional services up to and including full professional services for the Schematic Design, Preliminary Design, Working Drawings and Construction Administration.

Sustainability and building longevity shall be embraced in all aspects of design to have a more positive impact on the environment. Firms responding to this RFP will be required to demonstrate experience with the US Green Building Council's LEED certification process and assign to the project team a LEED accredited professional in each major design discipline. Experience with flexible building design that promotes building adaptation leading to building longevity is a key consideration and requirement.

The A/E shall provide professional services for the project described in Part IV of this RFP consistent with the A/E Manual, as revised, and latest directives issued by the Division of Engineering and Buildings concerning construction and professional services for new and renovated State buildings.

III. BACKGROUND

We live in a time of rapid, human-driven change, in which humanity's impact on Earth systems is unparalleled. Growing population stress combined with progressive degradation of environmental systems and declining resource abundance are now rapidly changing the Earth. Until recently, most human impacts were on terrestrial systems, but increasing populations along coastlines worldwide, as well as construction and extractive technologies, are now rapidly changing marine environments. Coupled with progressive increases in temperature and changes in atmospheric composition and particle loading, every facet of the global system is in a state of transition. These complexities highlight the fundamental difficulty in achieving sustainable solutions. With earth and biosphere systems in transition, any point where sustainability might be realized through intervention must be expected to shift to some new unknown. This situation-influx requires adaptive dynamic approaches characteristic of integrative systems science.

The Global Systems Sciences destination area is focused on critical problems that cross the nexus of natural and human systems. Nine critical problems have been identified in which Virginia Tech is already positioned with significant expertise and visibility both nationally and internationally: sea level rise and the land-sea interface, progressive soil degradation and impact on crop production and sustainability, pressure on forest ecosystems and watersheds, increased demand for food and raw materials, abundance and quality of fresh water, extinction of species and biosphere integrity, supply and integrity of food, degradation of ozone and aerosol loading, and transmission of infectious disease. In addressing these critical problems, GSS integrates four overarching areas of inquiry:

- Bio-geophysical Sciences: Combining knowledge from microbial communities to the highest trophic levels, across continental, oceanic, and atmospheric environments. This component is governed by the basic principles of physics, chemistry, geoscience, and biology.

- Translational medicine research and education: Development of technologies for diagnosis and treatment of animal and human diseases benefits greatly from close proximity between biomedical research laboratories and clinical service facilities. Naturally occurring diseases in patients informs selection of valuable research projects, which can then be tested and further developed in patients.
- Technology and tools: Advanced modeling capabilities, high performance computing, and advanced computing resources, including sensors, that may be used to develop state-of-the-art predictive/forecasting models for global government.
- School of Plant and Environmental Sciences: This initiative will create greater opportunity for multi-disciplinary interactions in the plant and allied sciences, revamp undergraduate and graduate curricula, capitalize on and extend our expertise in contemporary research themes such as microbial genomics, genome-assisted plant breeding, and global and local food security, and create new state-of-the-art facilities to accommodate these target areas.

None of the above is viewed independently of the *sociocultural realm*. GSS encompasses not only the social and health sciences but also consideration of human expression and experience through the humanities and arts. Full integration of sociocultural approaches into global systems science is critical to the development of effective solutions to environmental problems. With respect to curricular innovations, GSS will prepare students to live in an increasingly diverse society by emphasizing relationships between the ensemble and the individual, global complexity and local context, and technological capacity and human aspirations. The overriding conceptual framework of the curriculum is systems thinking, an approach that embraces complexity, crosses disciplinary boundaries, and encourages nimble and innovative approaches to complex problems.

IV. SCOPE OF SERVICES:

The Feasibility Study for the Global Systems Sciences capital project will investigate facility options for an interconnected complex of facilities supporting preeminent systems science research, applied extension and translational research, and education. Envisioned as a destination, the facilities will serve as the headquarters of a world-renowned group focused on solving critical regional and global problems facing the Earth system, including environmental, animal and human health. This facility will include disciplinary and interdisciplinary faculty of the College of Science, College of Natural Resources, College of Agriculture and Life Sciences, and the College of Veterinary Medicine, and University Institutes to facilitate education and research related to this important destination area. Interdisciplinary collaboration with graduate programs in humanities, social sciences, and the arts is crucial to realizing the integrative vision of the GSS destination area. The design of the facilities should foster a culture of communication, collaboration, engagement, and innovation through flexible spaces that include high state-of-the-art technology and provide opportunities to visualize education, outreach and research in action.

The following types of spaces are envisioned to be included in the facility; however, the feasibility study will be required to facilitate a stakeholder engagement process to confirm program requirements and to validate scale and quantity of each type of space:

- Faculty offices are needed for each participating faculty member. Some of these will need an accessory office for a postdoc or visitor at assumed ratio of one per two faculty. Collaborative spaces for faculty offices will also be considered. Full integration of arts, humanities, and social science faculty with scientists should be a goal of office design. One of the goals for the office space is to foster interdisciplinary collaboration so the office area should be based on an open office designed for flexibility of configuration and communication.

- Administrative and technical staff offices are needed to enable the building and its people to propel their mission forward. These spaces should be adjacent to common areas with forward looking designed administrative space. Collaborative spaces for graduate students with various space requirements will also be required. Again, an open office design for flexibility of configuration should be the approach.
- To support an open office format, multiple, various sized collaboration rooms will be necessary for flexibility. This ranges from smaller conference rooms geared towards distance collaboration to larger rooms more typical conference needs. The feasibility study should evaluate flexible and reconfigurable spaces to meet these varying needs.
- Visualization spaces are also important for the GSS destination area and should optimize with other advanced research computing and planned visualization facilities across campus.
- Bench/wet laboratories are an extensive part of GSS studies and extensive ‘flexible wall’ style facilities would provide a high degree of flexibility with changing project/problem requirements and ample hoods for chemical handling. Programming would have to determine the distribution of open or closed laboratory types with an emphasis on the open, flexible lab concept with moveable benches and reconfigurable/recombinable lab modules.
- Physical (dry) laboratories. Other types of laboratories may be best served for physical studies. For example, microscopic investigations of sediments, soils, cores, tree samples, plants and animal samples, or pollen.
- All research laboratories should anticipate the regular involvement of undergraduate and graduate students in research projects and provide appropriate safety considerations to accommodate their presence.
- In conjunction with the School of Plant and Environmental Sciences there is a need to develop “Smart” greenhouses equipped with specialty sensing technology that promotes a self-regulating microclimate controlled environment for optimal plant growth and real time monitoring.
- Clinical service, research and education spaces, that integrate with the existing Veterinary Teaching Hospital are anticipated in the biomedical sciences laboratories in the main GSS facility.
- Staging areas and storage for field equipment and preparation for expeditions is also necessary. This should have ready access to a loading dock.
- Specialized function rooms. These include multiple cold storage rooms, frozen storage rooms, walk-in environmental chambers with internal access to power and appropriate lighting, sound-proof rooms for interviewing, and multiple rooms appropriate for focus group meetings.
- General and flexible common space to include small meeting rooms, sitting areas, and “iteration zones” with whiteboards and complimentary technology is needed to promote student and faculty group interactions to maximize cross-disciplinary fertilization of work and ideas. In addition to extensive conference areas, this is facilitated by-access to signature hi tech seminar lecture halls for 100+ people. Related to the visualization labs would be a GSS-wide data immersion space similar to a mini theater with screens on all walls with 3D capability.
- To promote building efficiency, hallway spaces and other common areas should be purposefully programmed to address meeting and collaboration space.

- Modern classrooms advances will be created and implemented for undergraduate and graduate instruction. These will be strategically placed in the building allowing new connections to faculty problem solving spaces. There is specific intent to create integrated GSS learning spaces to draw from the classroom environment, merging into hands-on activities that follow and engage faculty problem solving areas. These types of spaces could be similar too modern conceptual “maker” spaces. Numbers and sizes will be determined in the programming and design phases. Additionally, Echo360-capable classrooms should be created to create global context for learning.
- A “hub” of the University Commons will be co-located within this facility inclusive of program elements not limited to a small café and/or a food service area, lounge space, and reservable meeting rooms potentially controlled by an auxiliary unit.

Specific A/E services for this Feasibility Study may include, but not be limited to:

- Work with a VT appointed steering committee and other university stakeholders to identify/quantify needs and translate this information into a concept level program to define size (SF), scale, adjacencies, and budget. It is the desire of Virginia Tech to complete this feasibility study in 2017. It is the desire to have a selected site, site massing diagram, and an approximation of program and cost early in the fall 2017 semester.
- Develop Facility Programmatic needs assessment of the building(s):
 - Analysis and definition of programmatic needs, goals, and objectives, specifically identifying shared space and communal areas;
 - Confirm university design standards and requirements pertaining to the project;
 - Determine and quantify space needs, adjacencies, and functional relationships;
 - Prepare draft Conceptual Facility Program listing square footages, specific to each users (as appropriate);
 - Prepare conceptual program diagrams to illustrate program adjacencies, general floorplan, collaborative/community, service space, and movement through the building(s).
 - Identify program elements that will be integrated into the new building(s) and identify vacated spaces and opportunities for the university for further consolidation of program space.
 - Integrate site planning with the existing Master Plan effort currently being developed through an external consultant.
- In addition to expansion of the Veterinary Teaching Hospital, conduct a site analysis and recommendation of potential sites within the Life Sciences and Resiliency District on the SW side of the Virginia Tech Campus in Blacksburg, Virginia centered on the intersection of Duckpond Drive and Washington Street. Multiple sites should be considered for analysis in coordination with the Office of University Planning:
 - Provide existing site conditions analysis, evaluation and confirmation for each site;
 - Evaluate engineered site plans and utility drawings;
 - Evaluate parking and service impacts;
 - Investigate and evaluate site opportunities and constraints in coordination with university Master Plan, Master Plan Updates and university Precinct Plans,
 - Identify and analyze best opportunities for routing pedestrian traffic between the building(s) and adjacent facilities, including access to the core of the Virginia Tech campus;

- Evaluate opportunities for engagement of outdoor spaces to enhance the experiential learning associated with the building(s).
- Undertake onsite planning workshops/design charrettes and meetings with the university Design Committee. Develop initial conceptual facility and site designs for each building and site:
 - Develop floor plans and site plans showing adjacencies;
 - Develop site and building massing and elevation drawings and sketches to express the character and images of the facility components without formalizing detail;
 - Identify special/unique opportunities and unique challenges;
 - Determine special corridors and utility needs.
- Prepare conceptual level budget estimate that provides, identifies and accounts for the conceptual findings, coordinated with the university's project assumptions:
 - Itemize the budget estimate by space type, program, etc. to allow greater flexibility by the university in developing funding models for implementation.
- Prepare specific concept graphics (visual aids) to be utilized in securing funding support from state and private sources:
 - Provide character images (to include photographs of similar spaces) for each programmatic space category to demonstrate modern trends in building design related to these space types.

Schedule:

The anticipated project will be a Commonwealth of Virginia pool funded project. Construction funding will be subject to further State authorization/approval.

V. POLICY ON SMALL BUSINESSES AND BUSINESSES OWNED BY WOMEN AND MINORITIES:

It is the policy of the Commonwealth of Virginia to contribute to the establishment, preservation and strengthening of small businesses and businesses owned by women and minorities and to encourage their participation in state procurement activities. The Commonwealth encourages contractors to provide for the participation of small businesses and businesses owned by women and minorities through partnerships, joint ventures, subcontracts, or other contractual opportunities. Submission of a report of past efforts to utilize the goods and services of such businesses required with any proposal for A/E services where the total A/E contract amount may exceed \$100,000. Proposer must provide information on its past utilization of Small, Women, and Minority Owned disadvantaged businesses, and must also state any plans to utilize such businesses and the manner in which they may be utilized under this Contract. Electronic copies of the "Small Businesses and Businesses Owned by Women & Minorities" Data Forms are available for download at the <http://forms.dgs.virginia.gov> website.

Virginia Tech is committed to increasing SWAM participation on capital projects, especially Women and Minority owned businesses. The university has the following SWaM participation goals for design and construction projects: Small 30%, Women 5% and Minority 5%. Failure to provide information on its past utilization of Small, Women, and Minority Owned disadvantaged businesses, and failure to state and quantify (by listing percentages) any plans to utilize such businesses and the manner in which they may be utilized under this Contract may result in a proposal being deemed non-responsive.

VI. PROPOSAL REQUIREMENTS:

- A. Proposals shall be signed by an authorized representative of the A/E. By submitting a proposal, the proposer certifies that all information provided in response to this RFP is true and accurate. Failure to provide information required by this RFP will ultimately result in rejection of the proposal.
- B. Proposals should be prepared simply and economically, providing a straightforward, concise description of the A/E's capabilities for satisfying the requirements of the RFP. Emphasis should be on completeness and clarity of content.
- C. The Respondent's proposal shall include: the completed and signed RFP cover page 1; the completed and signed Forms AE-1, AE-2, AE-3, AE-4, AE-5 and AE-6; and the completed "Small Businesses and Businesses Owned by Women & Minorities" Data (DGS form# DGS-30-360. **One (1) manually signed original and nine (9) copies** of the proposal shall be submitted to the Agency together with a pdf file on a CD or thumb drive. Each copy of the proposal shall be bound in a single volume where practical.
- D. All documentation submitted with the proposal shall be included in that single bound volume. Elaborate brochures and other representations beyond those sufficient for presenting a complete and effective proposal are neither required nor desired.
- E. Any information thought to be relevant, but not specifically applicable to the enumerated scope of Work, may be provided as an appendix to the proposal. If publications are supplied by the proposer to respond to a requirement, the response should include reference to the document number and page number. Publications provided without such reference will not be considered relevant to the RFP.

NOTE: Electronic copies of Forms AE-1, AE-2, AE-3, AE-4, AE-5 and AE-6 and of the "Small Businesses and Businesses Owned by Women & Minorities" Data Forms are available for download at the following website:

http://www.dgs.virginia.gov/tabid/823/Default.aspx?udt_1673_param_detail=159

and

http://www.dgs.virginia.gov/tabid/823/Default.aspx?udt_1673_param_detail=271

VII. EVALUATION AND AWARD OF CONTRACT:

- A. Evaluation Criteria: The following criteria will be considered by the university when evaluating proposals:
 - 1. Expertise, experience, and qualifications of the proposed A/E team (including Specialty Consultants if proposed) for providing the services described in Section IV specifically for the project type described in Section III (30 points).
 - 2. Demonstrated ability of the A/E's Project Manager and proposed team members to collaborate through design and construction as demonstrated by the successful delivery of projects of similar size, scope and complexity as described in Section IV (20 points).
 - 3. Past performance on projects for Virginia Tech and/or similar institutions which may be validated by reference checks (20 points).
 - 4. A/E's experience in providing services in conformance with Campus Design Principals, Design and Construction Standards, and the Commonwealth's Construction and Professional

Services Manual (CPSM) (20 points).

5. Ability of the A/E team to responsively perform the work in relation to the project site (5 points).
6. Use of small businesses and businesses owned by women and minorities as the prime A/E firm, consultants, or support services to support the university's SWAM goals. (5 points).

The selection committee, at their sole discretion, will consider the A/E Firm's overall suitability to provide the required services within the project's time, budget and operational constraints, and may take into consideration the comments and/or recommendations of the A/E Firm's previous clients, as well as other references.

- B. **AWARD OF CONTRACT:** After evaluation of the Proposals received in response to the RFP, the Agency may engage in individual discussions and interviews with two or more proposers deemed fully qualified, responsible and suitable on the basis of initial responses, and with professional competence to provide the required services. Repetitive informal interviews are permitted. Proposers are encouraged to elaborate on their qualifications, performance data, and staff expertise relevant to the proposed contract. Proposers may also propose alternate concepts or methodology. Proprietary information from competing proposers (including any data on estimated man-hours or rates and the plan for accomplishing the scope of work) will not be disclosed to the public or to competitors, provided such information is duly marked as "Proprietary Information" by the Proposer and the designation is justified as required by Section 2.2-4342, Code of Virginia, as revised. At the conclusion of the informal interviews and on the basis of evaluation factors set forth in Section VII and the information provided and developed in the selection process to this point, the Agency will rank, in the order of preference, the interviewed proposers whose professional qualifications and proposed services are deemed most meritorious. Negotiations will then be conducted with the Proposer ranked first. If a contract satisfactory and advantageous to the Agency can be negotiated at a fee considered fair and reasonable, the award can be made to that Proposer. Otherwise, negotiations with the Proposer ranked first shall be formally terminated and negotiations conducted with the Proposer ranked second, and so on, until such a contract can be negotiated at a fair and reasonable fee. Should the Agency determine in writing and in its sole discretion that only one Proposer is fully qualified, or that one offer is clearly more highly qualified and suitable than the others under consideration, a contract may be negotiated and awarded to that Proposer.

The University Design and Construction (UDC) Project Manager will be the primary contact for contract negotiations and all project related communications.

VIII. FEES:

The fee for basic and additional services shall be negotiated on a lump sum basis considering the Scope of Services required, the estimated manhours required for each level/discipline and the typical labor rates for the various skill levels required for the work. The Memorandum of Understanding prepared by the Agency will document the negotiated acceptable labor rates for the various levels/disciplines and these rates will be used for any hourly rate work of the A/E that is authorized by the Agency.