Smart Infrastructure

August 15, 2018
A. GENERAL INFORMATION

Request for Proposal (RFP) Name: Smart Infrastructure

RFP Number: #HH081518

Issue Date: August 15, 2018

Brief Description: The University of Virginia (the University) and its Department of Electrical and Computer Engineering seeks a qualified firm to develop and deploy a prototype system for its Smart Infrastructure Testbed.

Preproposal Questions: Any questions concerning this RFP must be sent to the buyer listed below no later than 5PM EST August 23, 2018 in order to guarantee a timely response prior to the proposal due date.

Proposal Due Date: 5PM EST August 29, 2018. Firms must submit an electronic original proposal that will be received by the University by the proposal deadline. The electronic original proposal must be submitted via electronic mail to the University Request for Proposals pur-rfp@eservices.virginia.edu. All electronic proposal documents, whether originals or copies, should be formatted as Microsoft Word documents.

Any trade secrets or proprietary information submitted with a proposal (original or copy) for which the firm seeks protection from public disclosure must be clearly identified by the specific page and section number in the proposal and accompanied by a suitable justification requesting non-disclosure.

Negotiations: Negotiations, if needed, will be held the weeks of September 24, 2018 and October 1, 2018.

Expected Award Date: The week of October 29, 2018.

Term of Agreement: The term of a resulting Agreement or Purchase Order will be for five years, with the ability to renew on the same or similar terms and conditions, for two additional two-year periods and one additional one-year period, if mutually agreeable to the University and the Selected Firm. The Selected Firm and the University will mutually agree at least 180 days prior to each renewal period whether to renew the terms of the Agreement.
This Request for Proposal (RFP) has been posted on Procurement and Supplier Diversity Services web site for your convenience. Addenda and attachments are posted if issued. The RFP can be downloaded at this web site: http://www.procurement.virginia.edu/pagerfp. It is the firm’s responsibility to ensure that the latest version of the entire RFP and related links are reviewed prior to submission of a proposal. We encourage you to check the web site frequently for any changes prior to the due date. Call (434) 924-1346 if you have trouble accessing the RFP from the web. For questions about the content of the RFP, contact the buyer listed above. Additional information can be found on Procurement and Supplier Diversity Services web site: http://www.procurement.virginia.edu.

For ease of reference, each firm or individual receiving this RFP is referred to as a “firm” and the firm or individual selected to provide services for the University is referred to as the “Selected Firm.” This RFP states the instructions for submitting proposals and the procedure and criteria by which a firm may be selected.

**B. SCOPE OF GOODS & SERVICES**

The University of Virginia (the University) and its Department of Electrical and Computer Engineering seeks a qualified firm to develop and deploy a prototype system for its Smart Infrastructure Testbed (SIT).

This RFP has been designed anticipating that no single firm is likely to supply the entire scope of products and services needed to build and operate the University’s Smart Infrastructure. The University expects to receive some proposals that respond to a single aspect of the goods and services related to the project, other proposals that respond to multiple areas, and possibly small number of proposals that respond to all aspects of this RFP. Firms are asked to clearly indicate in the response template which of the following areas their proposals are intended to address.
**Context:** In addition to being a top-tier research institution, the University is a substantial economic force in Virginia, a sophisticated customer for technology solutions, and an effective proxy for a large corporate campus, an industrial plant, and a small city. Further, an underrecognized area of strength at UVA is its management of facilities. The University’s Smart Infrastructure Testbed (SIT) will enable new cutting edge research by leveraging this unique suite of characteristics and strengths to implement a smart-infrastructure, wireless-sensor research testbed on top of the University’s existing facilities to transform the design of next generation cities and spaces. Figure 1 illustrates the concept behind the Smart Infrastructure Testbed, which is funded by the University’s Strategic Initiative Fund (SIF).

**Testbed Architecture:** The Smart Infrastructure Testbed spans 3 tiers, the Sensing Tier, Communication Tier, and Data Tier. Figure 2 shows the conceptual architecture for the SIT. The Sensing Tier comprises physical sensor nodes that interact with the physical environment of the University’s Facilities to collect sensed information and to relay it upward via the Communication Tier to the Data Tier. The Sensing Tier supports research related to the hardware / software co-design of the wireless sensors themselves and their interaction with the environment. A key research theme for this tier, leveraging the University’s existing expertise in Cyberphysical Systems and Internet of Things (IoT), is battery-less operation of self-powered sensors.

The Communication Tier collects telemetry data from the Sensing Tier, processes it as needed, and sends it upward to the Data Tier. It also provides access to the Sensing Tier devices for control purposes. The Communication Tier supports research related to scalable networks for next generation sensing systems, etc. The Data Tier aggregates the telemetry and metadata collected by the lower tiers and supports data ingest, storage, access, processing, and analytics. It comprises a scalable, cloud-based solution for handling the data from the testbed. The Data Tier supports research related to data science, analytics, scalable solutions, etc.
Three RFP Topics: This project seeks a qualified firm or firms to develop one or more of 3 RFP topics, called “Steel thread” RFP (Steam trap monitoring solution), “Flex
Sensor” RFP (Baseline sensing), and “SIT Cloud” RFP (Data platform). Figure 3 shows how these 3 topics interact with each other and with research efforts at the University.

**“Steel Thread” RFP Topic Requirements:** A successful respondent to the Steel Thread topic should provide a system solution for monitoring steam traps in the University’s heat plant and steam distribution system that connects end-to-end (like a “steel thread”) from steam trap data sensed by battery-less, wireless sensor nodes, through hubs, and up to a cloud-based data platform that provides insights into the operating state of the steam traps. This system will provide data streams in the near term that enable researchers to interact with real data to answer Data Tier questions. The system in parallel will provide the University’s facilities personnel the opportunity to explore the application of battery-less sensing technology to a real operational problem.

The University has nearly 2000 steam traps that allow condensate to be expelled from the steam lines used for heating most of the university. When the steam traps fail open (blow through), they allow steam to dump directly down the drain, costing substantial money in lost energy. If the steam traps fail closed, then condensate can back up into the steam lines, creating a potentially disastrous safety issue. The University already implements a state of the art maintenance program for monitoring and fixing steam traps, but continuous monitoring technology would help revolutionize this application, making it an excellent first use case for the SIT. The only existing solutions use batteries, and deploying 2000 battery operated devices is impractical, making a battery-less sensing solution an ideal opportunity to demonstrate the testbed. The requested system should both provide an acceptable solution for the University facilities and generate data for the SIT using a representative end-to-end sensing system.

### A. System Requirements

1. The Steel Thread steam trap monitoring system will:
   - Comprise sensor nodes, hubs, and a cloud-based data platform. (Respondents without an existing cloud based platform can instead provide an interface for data to flow to and from the SIT Cloud.). As a part of this “Steel Thread” RFP topic, The University will only consider a single award. The University has a preference for solution providers that can provide access to a cloud-based data platform, but that it is not required.
   - Deploy at least 25 nodes on steam traps (100 is target goal).
   - Provide a cost-effective solution at scale across the University’s fleet of steam traps (cost analysis required, including at-scale pricing and ROI).
   - Provide a maintainable solution for monitoring steam traps, e.g. easy to install, easy to remove /restore for maintenance, durable, does not use batteries.
   - Ensure access to the cloud platform for 3 years from the date of the award. Describe business arrangements required for perpetual access. Provide the University with ownership of measured data and access to / control of that data. Provide appropriate security for the data.
   - Conform with the University’s IT security requirements.
   - Meet FCC requirements for wireless communication.

**Nodes**

- Measure data using sensor nodes that are battery-less and that operate from harvested power.
- Harvest power from the steam system using thermoelectric generators.
- Operate in a temperature range of at least from -25°C to 85°C.
- Use IP67 rated enclosures for the sensor nodes.
- Operate continuously, taking samples at least every 2 minutes.
- Allow for sensing and harvesting elements to be replaced easily.

**Hubs**
- Communicate with battery-less sensor nodes to retrieve measured data wirelessly.
- Backhaul to the cloud using Ethernet.
- Encrypt data in flight to the cloud.
- Support at least 10 sensor nodes per hub.

**Cloud**
- Report on the operating state of each monitored steam trap, to include at least these states: normal, cold (off), failed blow through, and failed closed.
- Estimate energy loss in each failed blow through trap over time.
- Provide access to raw telemetry data upon query. All data should be retained.
- Provide raw data from the sensors as JSON data over MQTT on SSL to the SIT Cloud (in parallel to respondent’s cloud solution).
- Encrypt data in flight (e.g., between VPCs) and at rest.
- Provide access using secure account management with appropriate tiers of access.

The system should:

**Nodes**
- Harvest power from photovoltaic cells and from thermoelectric generators (a different hardware SKU for each source is acceptable).
- Use IP65 rated enclosures for the sensor nodes.

**Hubs**
- Backhaul to the cloud using the University’s WiFi network.
- Backhaul to the cloud using LTE, or similar, for deployments out of reach of Ethernet or WiFi. Provide for retention of data when backhaul is unavailable.
- Use IP67 rated enclosures for the hubs.

**Cloud**
- Report hardware failure or loss of power to sensors.
- Report energy available to the energy harvesting nodes over time.
- Support account federation with UVA Netbadge.

2. Steam Trap Monitoring Service and Support
The Selected Firm will need to provide the Services necessary for full implementation of the Steel Thread steam trap monitoring system. The Selected Firm will provide the following Services at a minimum:
- Provide detailed training for installation of sensors and hubs, modifying configuration and settings of the system, data access and query, and documentation of all platform levels. Training shall include on-site demonstration of installing at least one sensor and one hub.
- Installation, configuration, and testing of cloud data repository.
- Minimum one year warranty on hardware including maintenance and support with unlimited phone and email support.
“Flex Sensor” RFP Topic Requirements

The Flex Sensor should provide a solution for sensing and sending data that is sensed by battery-less, wireless sensor nodes that provide researchers with some flexibility to explore the design parameters of the battery-less sensors.

Designing practical wireless sensors with high duty cycles (e.g., rarely/never off) that operate from harvested energy is very challenging. This topic requires battery-less operation of sensor nodes that nevertheless provide flexibility for University researchers to configure the operation of multiple sensors and harvesting options, to perform research at the Sensing Tier related to the interaction of the battery-less sensor with its environment. The system should enable researchers to configure the sensor nodes using a serial interface, allowing interaction of the Flex Sensor system with a more broadly configurable research platform developed at the University and based on an off the shelf platform such as an Arduino, Raspberry Pi, etc.

3. The Flex Sensor system will:
   - Comprise sensor nodes and hubs.
   - Provide programmable control over configuration parameters in the sensor nodes. Documentation of the interface and communication scheme for configuration is required. Control should include at least: turning sensors on and off; varying the sensing rate; varying the reporting rate.
   - Include at least 50 nodes and at least 10 hubs.
   - Provide the University ownership of the nodes and hubs.

   **Nodes**
   - Measure data using sensor nodes that are battery-less and that operate from harvested power.
   - Harvest power from photovoltaic cells or from thermoelectric generators (a different hardware SKU for each source is acceptable).
   - Operate in a temperature range from -25C to 85C.
   - Use IP67 rated enclosures for the sensor nodes.
   - Include at least 4 sensors from the list: ambient temperature, remote temperature (via thermistor or thermocouple), relative humidity (RH), lux, pressure, shock, accelerometer.
   - Support configuration over a serial interface, such as SPI, I2C, UART, etc.
   - Support changing the wireless transmit power.
   - Allow powering from an external battery or DC supply.

   **Hubs**
   - Communicate wirelessly with battery-less sensor nodes.
   - Support multiple wireless protocols/physical layers.
   - Report data for ingest by the SIT Cloud as JSON data over MQTT on SSL.
   - Report telemetry data for active sensor(s).
   - Report energy available to the nodes.
   - Backhaul using Ethernet.
   - Backhaul using the University’s WiFi network.
The system should:

- Include a method for acquiring more nodes and hubs.
- Conform with the University’s ITS security requirements.

**Nodes**

- Include more than 4 sensors from the list: ambient temperature, remote temperature (via thermistor or thermocouple), relative humidity (RH), lux, pressure, shock, accelerometer.
- Allow introduction of a new sensor – respondent should document the operating ranges for compatible sensors.
- Allow the introduction of a new harvesting source – respondent should document the operating ranges for compatible harvesting sources.

**Hubs**

- Provide a programmable environment on the hub, for customization by researchers. Document use of any drivers or APIs that interact with the nodes.
- Backhaul to the cloud using LTE, or similar, for deployments out of reach of Ethernet or WiFi. Provide for retention of data when backhaul is unavailable.
- Control the configuration of the Nodes over the air.
- Enable monitoring of communication traffic patterns between hub and nodes.
- Support fast discovery by the backhaul network.

4. Flexible Sensor Service and Support

The Selected Firm will need to provide the Services necessary for full implementation of the Flex Sensor system. The Selected Firm will provide the following Services at a minimum:

- Provide detailed training for installation of sensors and hubs, modifying configuration and settings of the system, and documentation of all platform levels. Training shall include on-site demonstration of installing at least one sensor and one hub.
- Minimum one year warranty on hardware including maintenance and support with unlimited phone and email support.
- Listing and specifications for recommended hardware and software for optimum system performance.
“SIT Cloud” RFP Topic Requirements

SIT Cloud responses should provide a solution for data in the SIT that includes ingest, storage, security, access, queries, egress, processing, and analytics.

There are many cloud platforms and data management approaches available today. The priorities for the SIT Cloud center around following a modern, scalable, best-practices-driven open source platform for data to support future development by researchers.

5. The SIT Cloud system will:
   - Support ingest over MQTT on SSL.
   - Support ingest from csv files (respondents should document the format for ingest from files).
   - Support ingest of JSON data (with documentation of data schema). Data schema that support flexibility are desired.
   - Support ingest of telemetry data.
   - Support ingest of metadata.
   - Support cross-referencing of telemetry and metadata.
   - Retain all data permanently.
   - Provide pricing options and levels for the system’s ongoing use for various levels of data size, computation loads, data retrieval throughput / latency, etc.
   - Support access management, including privileged access.
   - Provide access to raw and derived data through a RESTful API. The API shall support at least basic CRUD functions and queries. The API will include documentation and will be versioned.
   - The API will support publicly accessible, readable data, but will also provide access to POST/DELETE/PUT endpoints that are secured by an API key/token.
   - Encrypt data in flight (e.g., between VPCs) and at rest.
   - Be scalable (to large data sets (TBs) and large computations) across all components.
   - Allow for customized analytics and computations to run efficiently at scale on the stored data as batch operations.
   - Provide egress to CSV/JSON/XML.
   - Provide a GUI for data access, data visualization, and system configuration.
   - Include automation scripts for deploying cloud based resources.
   - Include documentation for expansion to sensor data streams from new applications.
   - Use a code base that is open source, including all elements for expanding the platform for future use.

The system should:
   - Use AWS or comparable high quality cloud provider but not rely heavily on provider-specific resources.
   - Use mechanisms for cost effective use of cloud resources.
   - Support ingest from other sources (respondents should document the supported formats).
   - Provide access to / from the University’s Building Automation System (BAS).
- Support account federation with UVA Netbadge.
- Provide a REST API for data access.
- Allow for customized analytics and computations to run efficiently at scale on the stored data as streaming operations.
- Include Jupyter notebook support.

6. SIT Cloud Service and Support
The Selected Firm will need to provide the Services necessary for full implementation of the Steel Thread steam trap monitoring system. The Selected Firm will provide the following Services at a minimum:
- Provide detailed training for installation, modifying configuration and settings of the system, data access and query, and documentation of all platform levels. Training shall include on-site support for the initial installation of the cloud data service.
- Support with unlimited phone and email support.
- Listing and specifications for recommended hardware and software for optimum system performance.

C. BASIS OF SELECTION

Proposals will be evaluated based upon the overall merits/value of the proposal including, but not limited to, price. The University will evaluate proposals, and if a firm is to be selected, select the firm on the basis of:

1. The firm's plan to provide the University with the products as described in the Scope of Good and Services section;
2. The firm’s experience in providing Goods and Services similar to those described in this RFP, to include the firm’s references from clients;
3. The firm’s price proposal; and
4. The firm’s Small, Woman-owned and Minority-owned (SWAM) business status and/or the firm’s plan for utilization of SWAM businesses. For more information about SWAM and the University’s SWAM plan, please see the letter in Attachment 1 and refer to the following site: www.procurement.virginia.edu/main/publicpostings/rfp/SWAMplan.pdf

A 10% minimum weight will be given to this criterion in evaluating proposals. Any questions related to SWAM business and SWAM subcontracting opportunities can be directed to Les Haughton, Director Supplier Diversity, at (434) 924-7174 or lh7sn@virginia.edu.

D. CONTENTS OF PROPOSAL

Proposals will be prepared simply and economically, providing a straightforward, concise description of capabilities to satisfy the requirements of the RFP. Emphasis will be on completeness and clarity of content, and will be organized in the order in which the requirements are presented in the RFP.
Unnecessarily elaborate brochures and other presentations beyond that sufficient to present a complete and effective proposal are not desired and may be construed as an indication of the firms’ lack of cost consciousness. Elaborate artwork, expensive paper and bindings, and expensive visual and other presentation aids are neither necessary nor desired.

Firms will provide the following information:

1. A detailed description and the full specifications of the product/equipment proposed. Each firm will indicate in its proposal the firm’s ability to achieve/comply with each specification. In the event that the firm wishes to propose an alternate specification that, in any way, differs from the above specifications, the firm will detail the proposed change(s) and how the proposed change would compare to the listed specification. Proposals will be formatted in such a way to address each of the above specifications in a line-by-line process.

2. A brief history of the firm and its experience, qualifications and success in providing the type of product requested.

3. The estimated completion date of the product/service from the time of the order (i.e., 10 wks after order)

4. Information on the warranty associated with the product the firm is proposing and any extended warranty (include the price) that might be available.

5. The firm’s proposed price / fee for providing the Goods and Services, to include shipping charges (the University’s shipping terms are FOB Destination).

6. At least three references where similar goods and/or services have been provided. Include the name of the firm / organization, the complete mailing address, and the name of the contact person and telephone number.

7. The firm’s Small, Woman-owned and Minority-owned (SWAM) businesses status and/or how the firm intends to utilize SWAM firms in regards to this particular procurement.

8. Provide a list of institutions of higher education with which the firm has signed a term contract.

9. Provide the amount of annual sales the firm has with each VASCUPP Member Institution. A list of the VASCUPP Members can be found at https://vascupp.org

10. Complete and return the information requested in Attachment 2, Firm Information.

**NOTE:** Virginia Freedom of Information Act
Except as provided, once an award is announced, all proposals submitted in response to this RFP will be open to inspection by any citizen, or interested person, firm or corporation, in accordance with the Virginia Freedom of Information Act. Trade secrets or proprietary information submitted by a firm prior to or as part of its proposal will not be subject to public disclosure under the Virginia Freedom of Information Act only under the following circumstances: (1) the appropriate information is clearly identified by some distinct method such as highlighting or
underlining; (2) only the specific words, figures, or paragraphs that constitute trade secrets or proprietary information are identified; and (3) a summary page is supplied immediately following the proposal title page that includes (a) the information to be protected, (b) the section(s)/page number(s) where this information is found in the proposal, and (c) a statement why protection is necessary for each section listed. The firm must also provide a separate electronic copy of the proposal (CD, etc.) with the trade secrets and/or proprietary information redacted. If all of these requirements are not met, then the firm’s entire proposal will be available for public inspection.

IMPORTANT: A firm may not request that its entire proposal be treated as a trade secret or proprietary information, nor may a firm request that its pricing/fees be treated as a trade secret or proprietary information, or otherwise be deemed confidential.

E. TERMS AND CONDITIONS

This solicitation and any subsequent award is subject to:

- The Selected Firm registering as a vendor with the University of Virginia. https://www.procurement.virginia.edu/pagevendorregistrationform

- Unless otherwise deemed appropriate by the University, the Selected Firm(s) will enroll in one of the University approved methods for receipt of electronic payments. Accordingly, the Selected Firm agrees to accept Bank of America’s (“BoA”) ePayables® method of electronic payment or BoA’s PayMode® method of electronic payment.

- The Selected Firm registering and accepting eVA Terms and Conditions prior to award. http://www.eva.virginia.gov/


**Note:** Unless a firm *expressly and specifically states its exception* to any of the Preferred Provisions in its written proposal, then the proposal from the firm will automatically be deemed to include those Provisions.

F. OTHER INFORMATION

Insurance
Listed below is the insurance the Selected Firm must maintain under any Agreement resulting from this RFP. In no event should the Selected Firm construe these minimum required limits to be its limit of liability to the University. The Selected Firm will maintain insurance which meets or exceeds the requirements of the University with insurance companies that hold at least an A- financial rating with A.M. Best Company. No Agreement will be executed by the University until the Selected Firm satisfies the insurance requirements of the University. The Selected Firm may be required to provide the University with a valid Certificate of Insurance before providing any goods or services to the University. The University reserves the right to approve any insurance proposed by the Selected Firm.

Comprehensive Commercial General Liability:
The Selected Firm and any Subcontractor will maintain commercial general liability insurance with a minimum combined single limit of liability for bodily injury and property damage of $1,000,000 per occurrence and $3,000,000 aggregate with coverage for the following:
{ X} Premises/Operations  { X} Products/Completed Operations
{ X} Contractual        { X} Independent Contractors
{ X} Personal Injury    { X} Additional Insured*

*Additional Insured:
The University will be named as an Additional Insured, and the proper name is: "The Commonwealth of Virginia, and the Rector and Visitors of the University of Virginia, its officers, employees, and agents."

Automobile Insurance:
The Selected Firm and any Subcontractor will maintain commercial automobile liability insurance with a minimum combined single limit of liability for bodily injury and property damage of $1,000,000 per accident with the following coverages for vehicles operated by their employees.
{ X} Any Automobile

Technology Errors & Omissions
The Selected Firm and any Subcontractor will maintain technology errors and omissions liability insurance with respect to those services being provided to the University with a minimum liability limit of $1,000,000 per claim.

Workers Compensation
The Selected Firm and any subcontractor will maintain workers compensation insurance in accordance with the Virginia Workers’ Compensation Act and employers’ liability insurance with a minimum limits of $500,000.

Formation of the Agreement with the Selected Firm
All proposals received will first be carefully evaluated by the University, and then the University intends to conduct negotiations with two or more firms. After negotiations have been conducted, if the University chooses to make award, the University will select the firm which, in its opinion, best meets the needs of the University. Alternately, if the University determines in writing and in its sole discretion that only one firm is fully qualified, or that one firm is clearly more highly qualified than the others under consideration, it may decide to negotiate and award an agreement to that single firm. In either event, the University intends to execute a mutually satisfactory written agreement which will reflect and largely incorporate this RFP as reconciled with any pertinent documents, such as the proposal submitted and relevant negotiation correspondence.

**Because the University may choose to negotiate and award to a single firm as discussed above, each firm must include in its written proposal all requirements, terms or conditions it may have, and should not assume that an opportunity will exist to add such matters after the proposal is submitted.**

Any firm(s) invited to negotiations should note that the University reserves the right to begin negotiations by combining the best aspects of submitted proposals from all responding firms as the basis for subsequent formation of any Agreement resulting from this RFP.

Firms should also note that, as described above, certain matters will automatically be deemed part of the proposal.

**Data Protection**
Sensitive, non-public “University Data” is strictly regulated by state or federal law. Such data includes but is not limited to: business, administrative and financial data, intellectual property, and patient, student and personnel data. If the Supplier providing goods or services to the University will receive, create, or come into non- incidental contact with University Data, the Supplier agrees to abide by the terms and conditions of the Data Protection Addendum. Further, if the Supplier providing goods or services to the University will receive, create, or come into non-incidental contact with patient or UVa health plan participant Protected Health Information as that term is defined in 45 C.F.R. § 160.103, the Supplier is a Business Associate, and agrees to abide by the terms and conditions of the Business Associate Addendum in addition to the Data Protection Addendum.
Attachment X

Vice President for Finance’s Request for Commitment

Greetings:

The University of Virginia is able to deliver excellent education, research, healthcare, and public service because the high value support from you and all our suppliers of goods and services. Thank you for sharing our commitment to excellence. As a University, we are committed to diversity within our students, our faculty and staff, and our vendors and contractors. An important part of our procurement program involves our commitment to doing business with small, women- and minority-owned (SWaM) businesses. We look to you to help us achieve this objective.

We currently have a substantial volume of activity with small firms; however, we are striving to increase the number of substantial, long-term business relationships with minority-and women-owned businesses. We need your help here.

I have two requests: First, I ask that you actively seek out opportunities to involve small, women-and minority-owned businesses as you deliver services to UVA. Our team in Procurement and Supplier Diversity Services will assist you in identifying qualified diverse business partners. Second, please report your success in this area through our quarterly subcontracting reports – this is critical in quantifying how well we are meeting our goals. The terms and conditions previously provided to your organization outlined this process.

This effort is important to the University. We truly appreciate your efforts to join us in this commitment and partnership towards excellence.

Sincerely,

Melody Bianchetto
Vice President for Finance
### Firm Information

**Full Legal Name** *(Company name as it appears with its Federal Taxpayer Number):*

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#### SWAM Information:

Is the firm certified with the Commonwealth of Virginia’s Department of Small Business & Supplier Diversity (SBSD):  

- [ ] Yes  
- [ ] No

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Is the firm registered as a vendor in the Commonwealth of Virginia’s e-procurement system (eVA)?  

- [ ] Yes  
- [ ] No

**Point of Contact for this Proposal:**

Name:  

Address:  

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