

UNIVERSITY OF ALABAMA SYSTEM  
BOARD RULE 415  
BOARD SUBMITTAL CHECKLIST CRITERIA

BOARD SUBMITTAL CHECKLIST NO. 2  
CAPITAL PROJECT - STAGE II SUBMITTAL <sup>/1</sup>  
(Architect Ranking, Project Scope and Project Budget) <sup>/8</sup>

CAMPUS: The University of Alabama, Tuscaloosa, AL

PROJECT NAME: High Performance Computing and Data Center

MEETING DATE: November 2-3, 2023

- 1. Board Submittal Checklist No. 2
- 2. Transmittal Letter to Chancellor from Campus President requesting project be placed on the agendas for the forthcoming Physical Properties Committee and Board of Trustees (or Executive Committee) Meetings
- 3. Proposed Board Resolution requesting approval of Stage II Submittal (Architect Ranking, Project Scope and Project Budget; authority to proceed with Owner/Architect contract negotiations) by the Board of Trustees
- 4. Executive Summary – Proposed Capital Project <sup>/2</sup>
- 5. Executive Summary – Architect, Engineer, Selection Process (include Interview Outline). <sup>/3, /4, /5</sup>
- 6. Campus letter requesting approval of the ranking of firms and authority to Submit to the Physical Properties Committee for approval – signed by Chair of the Physical Properties Committee and UA System Senior Vice Chancellor for Finance and Administration <sup>/6</sup>
- 7. Preliminary Business Plan (if applicable) <sup>/7</sup>
- 8. Campus map(s) showing project site

Prepared by: Joshua Bollinger

Approved by: *Jim Leopold*  
*Car*  
*[Signature]*

<sup>/1</sup> Reference Tab 3H – Board Rule 415 Instructional Guide

<sup>/2</sup> Reference Tab 3E – Board Rule 415 Instructional Guide

<sup>/3</sup> Reference Tab 3K – Board Rule 415 Instructional Guide

<sup>/4</sup> Reference Tab 3L – Board Rule 415 Instructional Guide

<sup>/5</sup> Reference Tab 3M – Board Rule 415 Instructional Guide

<sup>/6</sup> Reference Tab 3N – Board Rule 415 Instructional Guide

<sup>/7</sup> Reference Tab 3V – Board Rule 415 Instructional Guide

<sup>/8</sup> After Completion of negotiations on Owner/Architect Agreement, provide notification to Chair of Physical Properties Committee and Senior Vice Chancellor for Finance & Administration, Reference Tab 3-O-Board Rule 415, Instructional Guide

THE UNIVERSITY OF  
**ALABAMA** | Office of the  
President

September 26, 2023

Chancellor Finis E. St. John IV  
The University of Alabama System  
500 University Boulevard East  
Tuscaloosa, Alabama 35401

Dear Chancellor St. John:

I am pleased to send to you for approval under Board Rule 415 the attached documents for a Stage II submittal for the High Performance Computing and Data Center project.

The resolution requests authorization to negotiate an Owner Designer Agreement with Davis Architects, Inc., Birmingham, AL, as the principal design firm for the project. The resolution also requests authorization to negotiate a Commissioning Agreement with Environmental Systems Corporation of Huntsville, Alabama, as the Commissioning Agent for the project.

The item has been thoroughly reviewed and has my endorsement. With your concurrence, I ask that it be added to the agenda for The Board of Trustees at their regular meeting on November 2-3, 2023.

Sincerely,



Stuart R. Bell  
President

Enclosure



## THE UNIVERSITY OF ALABAMA

**RESOLUTION**AUTHORIZATION TO NEGOTIATE OWNER/CONSULTANT AGREEMENTS  
FOR THE HIGH PERFORMANCE COMPUTING AND DATA CENTER

WHEREAS, on September 1, 2023, in accordance with Board Rule 415, The Board of Trustees of the University of Alabama (“Board”) approved a Stage I submittal for the High Performance Computing and Data Center (“HPC”) project (“Project”) to be located at 709 Johnny Stallings Drive; and

WHEREAS, the Project will provide numerous opportunities for students and faculty to engage in and experience a leading-edge computing technology environment and greatly enhance overall institutional research effectiveness, increasing the University’s productivity and innovation in research, scholarship, and creative activities; and

WHEREAS, modeling and simulation on HPC resources are a critical factor in the success of research in science and engineering, and state-of-the-art simulation, such as hydrological modeling, requires computing resources far beyond what is available from the University of Alabama’s (“University”) current HPC platforms; and

WHEREAS, the availability of Petascale-computational resources removes existing bottlenecks to the advancement of research requiring large-scale computational simulations, the training of complex Artificial Intelligence/Machine Learning models, and the development of new data science applications, and as a result, the Project will allow researchers to make scientific and engineering advances that are currently unavailable due to the University’s limited computational capability; and

WHEREAS, the Project entails the construction of an approximately 40,000 GSF two-story HPC that will solidify and propel the advancement of the University’s academic mission and research and development capabilities as an R1 institution; and

WHEREAS, the Project will include space for University staff offices and work areas as well as shell space for a future secure suite, and the facility will be designed to provide for efficient expansion of computing over time by providing an accessible structure and shell space for both compute and support infrastructure; and

WHEREAS, the Project will include the purchase of HPC equipment and will provide an appropriate environment for the operation thereof; and

WHEREAS, the proposed site is ideally located adjacent to Alabama Power Company high voltage transmission lines that will provide adequate and resilient capacity for current use and projected growth, which will require the University to contract with Alabama Power Company for service and to provide easements necessary to accommodate the substation location and service lines; and

WHEREAS, to mitigate the effects of continued industry lead time issues and to deliver the building as timely as possible, the Project is separated into multiple packages: Package A – MV Infrastructure and Substation, Package B – Utility and Infrastructure, and Package C – Main Construction of Building and System, and will also include Owner Furnished Contractor Installed (“OFCI”) Equipment; and

WHEREAS, the Consultant Selection Committee for architectural design services, appointed by the University, has completed Part 1 of the Consultant Selection Process in accordance with Board Rule 415 and negotiations for the Project will be conducted with the top ranked design firm following Board Approval as follows:

Ranking of Top Firms:

1. Davis Architects, Inc., Birmingham, AL
2. KPS Group, Inc., Birmingham, AL
3. SSOE Group, Birmingham, AL
4. Seay Seay & Litchfield, Montgomery, AL

WHEREAS, the Consultant Selection Committee for commissioning, appointed by the University, has completed Part 1 of the Consultant Selection Process in accordance with Board Rule 415 and negotiations for the Project will be conducted with the top ranked Commissioning Agent following Board Approval as follows:

Ranking of Top Firms:

1. Environmental Systems Corporation, Huntsville, AL
2. Sain Engineering Associates, Inc., Birmingham, AL
3. Hood Patterson & Dewar, Norcross, GA

WHEREAS, the Project is funded from a National Institute of Standards and Technology (“NIST”) Grant in the amount of \$44,550,000 (2023-NIST-CICGP-01), State of Alabama ETF Supplemental Appropriations in the amount of \$46,000,000 (enacted Act 2023-378/SB-87), and University Central Reserves in the \$5,450,000; and

WHEREAS, the Project Budget includes infrastructure associated with supporting Education and General Funded enterprise-level computing systems, and that scope of work will be funded with University Central Reserves; and

WHEREAS, the Project location and program have been reviewed and are consistent with the University Campus Master Plan, University Design Standards and the principles contained therein; and

WHEREAS, the budget for the Project remains as stipulated below:

BUDGET:	CURRENT
Package A - MV Infrastructure and Substation	\$ 1,287,551
Package B - Utility and Infrastructure	\$ 3,000,000
Package C - Main Construction of Building and Systems	\$ 35,000,000
Landscaping	\$ 200,000
Owner Furnished Contractor Installed (OFCI) Equipment	\$ 11,000,000
Owner Furnished HPC Equipment	\$ 25,000,000
Furniture, Fixtures, and Equipment	\$ 100,000
Security/Access Control	\$ 500,000
Telecommunication/Data	\$ 500,000
Contingency*	\$ 2,524,378
UA Project Management Fee**	\$ 1,855,417
Programming and Grant Preparation	\$ 375,000
Architect/Engineer Fee***	\$ 2,271,940
Commissioning Agent	\$ 700,000
Other (CMT, Surveys, inspections, advertisement, DCM review, Insurance)	\$ 1,400,000
Escalation****	\$ 10,285,714
<b>TOTAL PROJECT COST</b>	<b>\$ 96,000,000</b>

\*Contingency is based on 5% of the cost of the Packages A-C, Landscaping, and OFCI Equipment.

\*\*UA Project Management fee is based on 3.5% of the costs of the Packages A-C, Landscaping, OFCI Equipment, and Contingency.

\*\*\*Architect/Engineer Fee is based on 4.5% of the cost of the Packages A-C, Landscaping, and OFCI Equipment.

\*\*\*\*Escalation is based on an anticipated 12% inflation through the estimated bid date of September 2024.

NOW, THEREFORE, BE IT RESOLVED by The Board of Trustees of The University of Alabama that Stuart R. Bell, President; Matthew M. Fajack, Vice President for Finance and Operations and Treasurer; or, those officers named in the most recent Board Resolution granting signature authority for the University be, and hereby are, authorized for and on behalf of the Board to execute an Owner Designer Agreement with Davis Architects, Inc., Birmingham, AL, for architectural services in accordance with Board Rule 415 for this project.

NOW, THEREFORE, BE IT FURTHER RESOLVED by The Board of Trustees of The University of Alabama that Stuart R. Bell, President; Matthew M. Fajack, Vice President for Finance and Operations and Treasurer; or, those officers named in the most recent Board Resolution granting signature authority for the University be, and hereby are, authorized for and on behalf of the Board to execute an Commissioning Agreement with Environmental Systems Corporation, of Huntsville, Alabama, for commissioning agent services in accordance with Board Rule 415 for this project.

**EXECUTIVE SUMMARY**  
**PROPOSED CAPITAL PROJECT**  
**BOARD OF TRUSTEES SUBMITTAL**

**MEETING DATE:** November 2-3, 2023

**CAMPUS:** The University of Alabama, Tuscaloosa, Alabama

**PROJECT NAME:** High Performance Computing and Data Center

**PROJECT NUMBER:** 008-23-3287

**PROJECT LOCATION:** 709 Johnny Stallings Drive, Tuscaloosa, AL

**ARCHITECT:** Davis Architects, Inc., Birmingham, AL, pending approval

**THIS SUBMITTAL:**

- Stage I
- Stage II
- Campus Master Plan Amendment
- Stage III
- Stage IV

**PREVIOUS APPROVALS:**

September 1, 2023

<b>PROJECT TYPE</b>	<b>SPACE CATEGORIES</b>	<b>PERCENTAGE</b>	<b>GSF</b>
<input checked="" type="checkbox"/> Building Construction	Laboratory Facilities	~ 1.5%	588
<input type="checkbox"/> Building Addition	Office Facilities	~4.9%	1,958
<input type="checkbox"/> Building Renovation	Special Use Facilities	~ 0.4%	147
<input type="checkbox"/> Equipment	Central Service/ Support	~ 24.8%	9,941
	Residential Facilities	~2.7%	1,090
	Circulation Area	~12.5%	4,996
	Building Service Area	~ 0.5%	213
	Mechanical Area	~52.7%	21,067
	<b>TOTAL</b>	<b>100%</b>	<b>40,000</b>

<b>BUDGET</b>	<b>CURRENT</b>
Package A - MV Infrastructure and Substation	\$ 1,287,551
Package B - Utility and Infrastructure	\$ 3,000,000
Package C - Main Construction of Building and Systems	\$ 35,000,000
Landscaping	\$ 200,000
Owner Furnished Contractor Installed (OFCI) Equipment	\$ 11,000,000
Owner Furnished HPC Equipment	\$ 25,000,000
Furniture, Fixtures, and Equipment	\$ 100,000
Security/Access Control	\$ 500,000
Telecommunication/Data	\$ 500,000
Contingency*	\$ 2,524,378
UA Project Management Fee**	\$ 1,855,417
Programming and Grant Preparation	\$ 375,000
Architect/Engineer Fee***	\$ 2,271,940
Commissioning Agent	\$ 700,000
Other (Surveys, inspections, advertisement, DCM review, Insurance)	\$ 1,400,000
Escalation****	\$ 10,285,714
<b>TOTAL PROJECT COST</b>	<b>\$ 96,000,000</b>
<b>Total Construction Cost per square foot \$1,325</b>	

\*Contingency is based on 5% of the cost of the Packages A-C, Landscaping, and OFCI Equipment.

\*\*UA Project Management fee is based on 3.5% of the costs of the Packages A-C, Landscaping, OFCI Equipment, and Contingency.

\*\*\*Architect/Engineer Fee is based on 4.5% of the cost of the Packages A-C, Landscaping, and OFCI Equipment.

\*\*\*\*Escalation is based on an anticipated 12% inflation through the estimated bid date of September 2024.



**ESTIMATED ANNUAL OPERATING AND MAINTENANCE (O&M) COSTS:**

(Utilities, Housekeeping, Maintenance, Insurance, Other)

40,000gsf x ~\$24.90/sf	\$ 995,939
<b>Total Estimated Annual O&amp;M Costs*:</b>	<b>\$ 995,939</b>

\*Annual O&M Cost estimated for 2MW operating load in Year 1, increasing to 8MW by Year 6 at an estimated Annual O&M Cost of \$3,423,379.

**FUNDING SOURCE:**

Federal NIST Grant (2023-NIST-CICGP-01)	\$ 44,550,000
State Appropriation (Act 2023-378/SB-87)	\$ 46,000,000
UA Central Reserves	\$ 5,450,000

<b>O&amp;M Costs:</b>	Recharge to the User and F&A	\$ 995,939
	recovered funds from ORED*	

\*Annual O&M Cost estimated for 2MW operating load in Year 1, increasing to 8MW by Year 6 at an estimated Annual O&M Cost of \$3,423,379.

**NEW EQUIPMENT REQUIRED**

OFCI Equipment:*	\$11,000,000
Generators	
Supervisory Control and Data Acquisition and Substation Switchgear	
HVAC Equipment	
HPC Equipment	\$25,000,000
<b>Total Equipment Costs:</b>	<b>\$36,000,000</b>

\*identified long lead equipment as appropriate to efficiently deliver the project

**PROJECT SCOPE:**

The UA High Performance Computing and Data Center project, located at 709 Johnny Stallings Drive, Tuscaloosa, AL, will consist of new construction of an approximately 40,000 gross square feet (“gsf”) building to serve the campus academic needs, the Office of Research and Economic Development (ORED), and strategic partners.

The Project will consist of the new construction of a 2-story space for the HPC equipment that will include people space for UA staff office and work areas as well as shell space for a future secure suite. The facility will be designed to provide for efficient expansion of computing over time by providing an accessible structure and shell space for both compute and support infrastructure.

The building will have an aesthetic and massing to complement the surrounding architecture and promote education of next generation HPC systems to staff, students, and visitors. The project includes a dedicated chiller plant located adjacent to the new building and all necessary vehicular access for deliveries, service vehicles, and emergency vehicles.

The Project will include the purchase of HPC equipment and will provide an appropriate environment for the operation thereof.

The project will also include a new approximately 22,500 gsf electrical substation yard. The proposed site is ideally located adjacent to Alabama Power high voltage transmission lines which will provide adequate and resilient capacity for current use and projected growth. As these lines also serve a nearby hospital, their operation and reliability are considered critical and would be addressed as a priority in case of a major outage. This will help ensure the continuity of operations for the facility and support an efficient cost of initial construction due to the close proximity.

The selected site aligns with the UA Master plan. The proposed site was chosen considering multiple factors, chiefly the availability of high capacity and resilient electrical service, availability and capacity of other support infrastructure and utilities and environmental resiliency. The site and layout will also consider any needed future expansion of the Capstone College of Nursing.

<b>PROJECT STATUS</b>		
SCHEMATIC DESIGN:	Date Initiated	Nov 2023
	% Complete	0%
	Date Completed	January 2024
PRELIMINARY DESIGN:	Date Initiated	Feb 2024
	% Complete	0%
	Date Completed	March 2024
CONSTRUCTION DOCUMENTS:	Date Initiated	Apr 2024
	% Complete	0%
	Date Completed	August 2024
SCHEDULED BID DATE:	September 2024	

*\*N/A on Stage I Projects*

**RELATIONSHIP AND ENHANCEMENT OF CAMPUS PROGRAMS**

High Performance Computing (“HPC”) plays a vital role in many scientific, industrial, and societal advancements due to the complexity of the questions and problems at hand. The creation of the UA Center for High Performance Computing (“Center”) will utilize HPC resources to answer our biggest questions related to water, mobility, and power technologies. These areas also provide profound economic development opportunities for the state of Alabama. The Center will enable current and future UA researchers, students, and other scientists from around the state and world to collaborate with UA and partners to promote research & development, economic development, and talent and workforce development in areas critical to the future of the state of Alabama, water, and transportation.

The University of Alabama has become a nexus for water research with the collocation of strategic partners at the National Oceanic and Atmospheric Administration National Water Center and at the U.S. Geological Survey Hydrological Instrumentation Facility. These partners will benefit from the Center as we all seek to advance a new generation of improved products for effective decision making in protecting life and property related to water security, water excess, water scarcity, water potability, etc. The establishment of the Center will enable groundbreaking scientific discoveries translatable to operational water modeling. The Center will enable UA principal investigators and their partners to utilize new HPC tools and either widen or deepen their research foci. A new, dedicated HPC center with a focus on water will speed the timeliness and efficiency of moving research into operations as they develop new products, all while reducing production costs.

For mobility and power, our partners are universities in The University of Alabama System, industry in Alabama and K-12, community colleges, and other universities. The Center will be closely aligned with the Alabama Mobility and Power Center (“AMP Center”), a highly unique

and timely public-private partnership with state and national importance. The Center will allow and support the AMP Center to address problems transforming highway transportation as electric vehicles achieve mass deployment. These problems involve large scale network optimization that will enable overall management of energy distribution, routing of vehicles to optimize energy utilization, and analyses of network traffic to support cybersecurity of electric vehicles.

This project is a critical step in the advancement of the University's research and development capabilities as an R1 institution. Modeling and simulation on HPC resources are a critical factor in the success of research in science and engineering. State-of-the-art simulation, such as hydrological modeling, requires computing resources far beyond what is available from UA's current HPC platforms. This project will drive substantial innovation and effectiveness of research by:

- Supporting the University's role as national water and transportation leader through expanding the advanced computing capacity essential for state-of-the-art research in those critical Alabama centers of economic investment
- Enhancing existing programs in STEM fields such as chemistry and biochemistry; astrophysics and cosmology; geology, geography, and environmental engineering; biology, especially genomics analysis; chemical engineering, materials engineering, physics for materials properties analysis, design, and engineering; and psychology, especially for image analysis
- Providing a competitive advantage to the University in the procurement of federal and private industry grants and contracts
- Driving student workforce development in skills and knowledge essential for an agile 21st century Alabama workforce including software engineering, mobility and power technologies, hydrology and water security, Artificial Intelligence and Machine Learning, and computational sciences

The project greatly enhances overall institutional research effectiveness, increasing the University's productivity and innovation in research, scholarship, and creative activities. The availability of Petascale-computational resources removes existing bottlenecks to the advancement of research requiring large-scale computational simulations, the training of complex Artificial Intelligence/Machine Learning models, and the development of new data science applications. As a result, the project will allow researchers to make scientific and engineering advances that are currently unavailable due to the University's limited computational capability.

Furthermore, this project:

- Enhances efforts to recruit and retain outstanding and diverse research faculty and staff engaged in fields requiring advanced computing resources commensurate with leader-level R1 research institutions
- Helps attract and retain STEM students by engaging them in state-of-the-art computational research at a scale available only at leader-level research institutions
- Enhances the University's ability to engage in federal grants and contracts involving International Traffic Arms Regulation (ITAR) and Controlled Unclassified Information (CUI) security compliance requirements and other controlled research data and processes
- Will lead to peer-reviewed publications in a wide range of areas including those of interest to the Alabama public such as water management, mobility, and power

technologies for electrical vehicles

This project affirms the University's commitment to increasing productivity and innovation in research, scholarship, and creative activities. The UA Center for High Performance Computing project aligns with existing university investments in facilities and programming for mobility and power technology, hydrology and water security, and computational sciences and engineering. Current investments include the establishment of UA's Research Institutes including Water, Transportation, Cybersecurity, and Life Sciences as well as existing capital projects such as the Smart Community and Innovation Building, the US Geological Survey Hydrologic Instrumentation Facility project, the Renovations for Materials Characterization Service and Support of Academic Programs, and the Gordon Palmer Data Center Renovation project.

Furthermore, this project

- Increases the geographic, educational, and societal reach of HPC research infrastructure within the state of Alabama by providing HPC educational and computational resources to researchers at other higher education institutions without significant HPC assets
- Broadens the diversity of participants using HPC in Alabama by providing opportunities for collaborations among researchers and students within and outside of the institution
- Advances the University's ability to provide a premier undergraduate and graduate education by offering students a global perspective characterized by outstanding teaching supported by the advanced research computing concepts and skills of their field

THE UNIVERSITY OF ALABAMA

TUSCALOOSA, ALABAMA

**Part 1****EXECUTIVE SUMMARY****CONSULTANT SELECTION PROCESS****BOARD OF TRUSTEES SUBMITTAL**

Meeting Date: November 2 – 3, 2023  
 Campus: The University of Alabama  
 Project Name: High Performance Computing and Data Center  
 UA Project #: 008-23-3287  
 Project Location: Located at 709 Johnny Stallings Drive, Tuscaloosa, AL  
 Prepared By: Vince Dooley/Joshua Bollinger Date: September 7, 2023

<b>Project Type</b>	<b>Range of Construction Costs</b>		
<input type="checkbox"/> Building Renovations	\$ _____	to	\$ _____
<input type="checkbox"/> Building Addition	\$ _____	to	\$ _____
<input checked="" type="checkbox"/> New Construction	\$ 51,487,551	to	\$ 51,487,551
<input type="checkbox"/> Campus Infrastructure - Sitework	\$ _____	to	\$ _____
<input type="checkbox"/> Equipment – Elevator Package	\$ _____	to	\$ _____
<input type="checkbox"/> Other	\$ _____	to	\$ _____

<b>Building Type – Group I</b>	<b>Percentage of Project</b>
<input type="checkbox"/> Industrial Building Without Special Facilities	_____ %
<input type="checkbox"/> Parking Structures/Repetitive Garages	_____ %
<input type="checkbox"/> Simple Loft Type Structure	_____ %
<input type="checkbox"/> Warehouses/Utility Type Buildings	_____ %
<input type="checkbox"/> Other	_____ %

<b>Building Type – Group II</b>	<b>Percentage of Project</b>
<input type="checkbox"/> Apartments and Dormitories	_____ %
<input type="checkbox"/> Exhibit Halls	_____ %
<input type="checkbox"/> Manufacture/Industrial Facilities	_____ %
<input type="checkbox"/> Office Building (Without Tenant Improvements)	_____ %
<input type="checkbox"/> Printing Plants	_____ %
<input type="checkbox"/> Service Garage/Facility	_____ %
<input type="checkbox"/> Other (Storm Shelter and Multi-Purpose Event)	_____ %

Building Type – Group III	Percentage of Project
<input type="checkbox"/> College Classroom Facilities	_____ %
<input type="checkbox"/> Convention Facilities	_____ %
<input type="checkbox"/> Extended Care Facilities	_____ %
<input type="checkbox"/> Gymnasiums	_____ %
<input type="checkbox"/> Hospitals	_____ %
<input type="checkbox"/> Institutional Dining Halls	_____ %
<input type="checkbox"/> Laboratories	_____ %
<input type="checkbox"/> Libraries	_____ %
<input type="checkbox"/> Medical Schools	_____ %
<input type="checkbox"/> Medical Office Facilities and Clinics	_____ %
<input type="checkbox"/> Mental Institutions	_____ %
<input type="checkbox"/> Office Buildings (with tenant improvements)	_____ %
<input type="checkbox"/> Parks	_____ %
<input type="checkbox"/> Playground and Recreational Facilities	_____ %
<input type="checkbox"/> Public Health Centers	_____ %
<input checked="" type="checkbox"/> Research Facilities	100 %
<input type="checkbox"/> Stadiums	_____ %
<input type="checkbox"/> Central Utilities Plants	_____ %
<input type="checkbox"/> Water Supply and Distribution Plants	_____ %
<input type="checkbox"/> Sewage Treatment and Underground Systems	_____ %
<input type="checkbox"/> Electrical Substations and Primary and Secondary Distribution Systems, Roads, Bridges and Major Site Improvements when performed as Independent projects	_____ %

Building Type – Group IV	Percentage of Project
<input type="checkbox"/> Aquariums	_____ %
<input type="checkbox"/> Auditoriums	_____ %
<input type="checkbox"/> Art Galleries	_____ %
<input type="checkbox"/> College Buildings with special features	_____ %
<input type="checkbox"/> Communications Buildings	_____ %
<input type="checkbox"/> Special Schools	_____ %
<input type="checkbox"/> Theaters and similar facilities	_____ %
<input type="checkbox"/> Other	_____ %

THE UNIVERSITY OF ALABAMA

THE UNIVERSITY OF ALABAMA

Building Type – Group V	Percentage of Project
<input type="checkbox"/> Residences and Specialized Decorative Buildings	_____ %
<input type="checkbox"/> Other	_____ %

Repetitive Design or Duplication of Facilities	
Does the Building Program/Requirements support repetitive design or duplication of Facilities justifying an adjustment in A/E Design Fees?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Building Program Development	
Will the A/E Agreement require the Development of a Comprehensive Building/Design Program in lieu of one provided by Owner requiring an adjustment in A/E Fees?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Construction Consultant Services	
Will the University be utilizing a Construction Consultant who will perform some of the services normally provided by the Architect requiring an adjustment of A/E Fees?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Multiple Prime Trade Contracts	
Will the project be competitively bid and constructed using Multiple Trade Contracts requiring additional services from the A/E?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Design Build Services	
Will the University be using a Design/Build process, which will result in a reduction in contracted design services and a corresponding adjustment in A/E Fees?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Architect/Engineer Project Notifications	
<input type="checkbox"/> Advertised through State Division of Construction Management	
<input type="checkbox"/> Local/State Trade Journals	
<input checked="" type="checkbox"/> Posted on Campus Web Pages	
<input checked="" type="checkbox"/> Direct Contact with A/E Companies/Firms	
<input checked="" type="checkbox"/> Other: Newspaper and email distribution list	



**Appointed Consultant Selection Committee (CSC):**

1. Jason Bigelow, University Architect
2. Joshua Bollinger, Senior Project Manager
3. D. Jay Cervino, Executive Director
4. Vince Dooley, Architectural Design Coordinator
5. Mike Gremillion, Director
6. Tim Leopard, Senior Associate Vice President
7. Greg McKelvey, Executive Director
8. Mike Shelton, Deputy CIO, CTO
9. Dwight Stewart, Mechanical Engineer
10. Ray White, Associate Dean


**Qualified Firms/Companies Submitted:**

1. KPS Group, Inc, Birmingham, AL
2. SSOE Group, Birmingham, AL
3. Seay Seay & Litchfield, Montgomery, AL
4. Davis Architects, Inc., Birmingham, AL

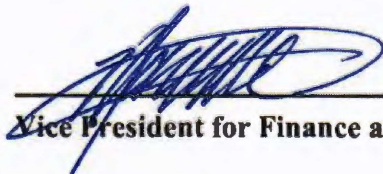
**Ranking of Most Qualified Firms to be submitted to the Physical Properties Committee**

1. Davis Architects, Inc., Birmingham, AL
2. KPS Group, Inc, Birmingham, AL
3. SSOE Group, Birmingham, AL
4. Seay Seay & Litchfield, Montgomery, AL

**Reviewed and approved by:**

DocuSigned by:  
  
 Vince Dooley

\_\_\_\_\_  
**Chairman of Consultant Selection Committee**



\_\_\_\_\_  
**Vice President for Finance and Operations and Treasurer**



Firm's Name: \_\_\_\_\_

Firm's Ranking: \_\_\_\_\_

## High Performance Computing and Data Center

UA Project No. PLN-23-3287

Date: September 7, 2023

### 1. Welcome/Introduction (time allotted = 5 minutes)

- a. Design Team
  - i. Brief introduction of your firm/team.
  - ii. The UA recommends Affiliated Engineers, Inc. (AEI) as MEP and Fire Protection consultants due to unique and specialized nature of this project. Provide other consultants as required. (Consultants are not required to be present at interviews).

---

---

---

---

---

---

### 2. Design Opportunities/Feedback - 20 points max (time allotted = 25 minutes)

- a. Provide examples of classical building design, massing, scale, etc. to ensure this new facility will meet the University's design language and context for academic buildings.
- b. Show us one relevant or similar design project that involves High Performance Computing, Data Centers, or specialized computing facility similar what was outlined in the programming document. Discuss any challenges or obstacles if applicable.
- c. Please review the project description and/or programming information and provide design feedback and ideas that you feel could enhance this project.

---

---

---

---

---

---

Committee Member Initials: \_\_\_\_\_



---

---

---

**3. Roles & Execution – 5 points max (time allotted = 5 minutes)**

- a. Design and construction roles
  - i. Explain your firm’s day to day roles and responsibilities for the project.
- b. Provide a proposed Design Construction schedule.
- c. Discuss your experience collaborating with specialized consultants on past projects when a vast majority of the project scope involved other disciplines. (i.e., mechanical, electrical, etc.)
  - i. How are you preparing to work with the Owner desired consultant(s) and what are the essential elements for project success?

---

---

---

---

---

**4. Questions & Answers (time allotted = 15 minutes)**

**General Notes:**

---

---

---

---

---

---

---

---

Committee Member Initials: \_\_\_\_\_



September 26, 2023

Dr. Dana S. Keith  
Senior Vice Chancellor for Finance and Administration  
Sid McDonald Hall  
500 University Boulevard, East  
Tuscaloosa, AL 35401

Trustee Marietta M. Urquhart  
Chair, Physical Properties Committee  
Sid McDonald Hall  
500 University Boulevard, East  
Tuscaloosa, AL 35401

RE: Consultant Selection Process – Part 1  
Architectural Design Services  
High Performance Computing and Data Center  
UA Project #: 008-23-3287

Dear Dr. Keith and Trustee Urquhart,

Pursuant to Board Rule 415, on September 1, 2023 The Board of Trustees of The University of Alabama (“Board”) approved the Stage I submittal for the High Performance Computing and Data Center Project (“Project”) to be located at 709 Johnny Stallings Drive, Tuscaloosa, AL, at a preliminary total Project budget amount of \$96,000,000.

Pursuant to Board Rule 415, notifications for the Project, including a brief description of the Project location, and preliminary budget were advertised, issued by email to Alabama-based firms and others in the consultant database, and posted on the University campus web page. Firms desiring to be considered for Architectural Design Services were requested to provide brochures to the University outlining their qualifications, relevant experience, and proposed team members by August 14, 2023.

A Consultant Selection Committee, appointed by the University in accordance with the provisions of Board Rule 415, reviewed the submitted brochures and on September 7, 2023, interviewed the following architectural firms:

- KPS Group, Inc., Birmingham, AL
- SSOE Group, Birmingham, AL
- Seay Seay & Litchfield, Montgomery, AL
- Davis Architects, Inc., Birmingham, AL

Consultant Selection Process - Part 1  
Architectural Designs Services  
High Performance Computing and Data Center  
September 26, 2023  
Page 2

The Consultant Selection Committee then determined the following ranking for the firms deemed most qualified for the Project:

1. Davis Architects, Inc., Birmingham, AL
2. KPS Group, Inc., Birmingham, AL
3. SSOE Group, Birmingham, AL
4. Seay Seay & Litchfield, Montgomery, AL

The primary selection criteria used in the ranking of the firms included the following:

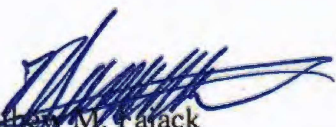
1. The firms represented a clear understanding of the Project program and goals, a design approach or methodology and standard of care necessary.
2. The firms presented the most favorable listing of qualified principals, staff, and associated engineers for the Project along with a commitment to meet the University's schedule for completion of the design and construction of the Project.
3. The firms are committed to using Alabama-based consultant engineers for the Project.

Approval is hereby requested for:

1. The ranking of consultant firms listed hereinbefore.
2. Approval to submit these rankings to the Physical Properties Committee for consideration.

If you have any questions or concerns, please feel free to contact me.

Sincerely,



Matthew W. Rajack  
Vice President for Finance and Operations  
and Treasurer

MMF/ccj


Attachment

pc/atchmt: Michael Rodgers  
Tim Leopard  
Joshua Bollinger  
Vince Dooley

Consultant Selection Process - Part 1  
Architectural Designs Services  
High Performance Computing and Data Center  
September 26, 2023  
Page 3

\*\*\*\*\*  
The above listing of firms ranked as the most qualified for the Project are hereby approved and by forwarding this executed document to the Chancellor's office, the rankings are approved for inclusion in the Board materials to the November 2 - 3, 2023, Physical Properties Committee.  
\*\*\*\*\*

DocuSigned by:  
  
9C2EFD005B6C48D...  
Dr. Dana S. Keith: **Recommend for Approval**  
Senior Vice Chancellor for Finance and Administration

DocuSigned by:  
  
73592E8B4A08472...  
Trustee Marietta M. Urquhart: **Approval Recommended**  
Chair of the Physical Properties Committee

**Part 1**

**EXECUTIVE SUMMARY  
CONSULTANT SELECTION PROCESS  
BOARD OF TRUSTEES SUBMITTAL**

Meeting Date: November 2 – 3, 2023  
 Campus: The University of Alabama  
 Project Name: High Performance Computing and Data Center  
 UA Project #: 008-23-3287  
 Project Location: Located at 709 Johnny Stallings Drive, Tuscaloosa, AL  
 Prepared By: Vince Dooley/Joshua Bollinger Date: September 7, 2023

<b>Project Type</b>		<b>Range of Construction Costs</b>		
<input type="checkbox"/>	Building Renovations	\$	_____	to \$ _____
<input type="checkbox"/>	Building Addition	\$	_____	to \$ _____
<input checked="" type="checkbox"/>	New Construction	\$	51,487,551	to \$ align="right">51,487,551
<input type="checkbox"/>	Campus Infrastructure - Sitework	\$	_____	to \$ _____
<input type="checkbox"/>	Equipment – Elevator Package	\$	_____	to \$ _____
<input type="checkbox"/>	Other	\$	_____	to \$ _____

<b>Building Type – Group I</b>		<b>Percentage of Project</b>
<input type="checkbox"/>	Industrial Building Without Special Facilities	_____ %
<input type="checkbox"/>	Parking Structures/Repetitive Garages	_____ %
<input type="checkbox"/>	Simple Loft Type Structure	_____ %
<input type="checkbox"/>	Warehouses/Utility Type Buildings	_____ %
<input type="checkbox"/>	Other	_____ %

<b>Building Type – Group II</b>		<b>Percentage of Project</b>
<input type="checkbox"/>	Apartments and Dormitories	_____ %
<input type="checkbox"/>	Exhibit Halls	_____ %
<input type="checkbox"/>	Manufacture/Industrial Facilities	_____ %
<input type="checkbox"/>	Office Building (Without Tenant Improvements)	_____ %
<input type="checkbox"/>	Printing Plants	_____ %
<input type="checkbox"/>	Service Garage/Facility	_____ %
<input type="checkbox"/>	Other (Storm Shelter and Multi-Purpose Event)	_____ %

THE UNIVERSITY OF ALABAMA

TUSCALOOSA, ALABAMA

Building Type – Group III	Percentage of Project
<input type="checkbox"/> College Classroom Facilities	_____ %
<input type="checkbox"/> Convention Facilities	_____ %
<input type="checkbox"/> Extended Care Facilities	_____ %
<input type="checkbox"/> Gymnasiums	_____ %
<input type="checkbox"/> Hospitals	_____ %
<input type="checkbox"/> Institutional Dining Halls	_____ %
<input type="checkbox"/> Laboratories	_____ %
<input type="checkbox"/> Libraries	_____ %
<input type="checkbox"/> Medical Schools	_____ %
<input type="checkbox"/> Medical Office Facilities and Clinics	_____ %
<input type="checkbox"/> Mental Institutions	_____ %
<input type="checkbox"/> Office Buildings (with tenant improvements)	_____ %
<input type="checkbox"/> Parks	_____ %
<input type="checkbox"/> Playground and Recreational Facilities	_____ %
<input type="checkbox"/> Public Health Centers	_____ %
<input checked="" type="checkbox"/> Research Facilities	100 %
<input type="checkbox"/> Stadiums	_____ %
<input type="checkbox"/> Central Utilities Plants	_____ %
<input type="checkbox"/> Water Supply and Distribution Plants	_____ %
<input type="checkbox"/> Sewage Treatment and Underground Systems	_____ %
<input type="checkbox"/> Electrical Substations and Primary and Secondary Distribution Systems, Roads, Bridges and Major Site Improvements when performed as Independent projects	_____ %

Building Type – Group IV	Percentage of Project
<input type="checkbox"/> Aquariums	_____ %
<input type="checkbox"/> Auditoriums	_____ %
<input type="checkbox"/> Art Galleries	_____ %
<input type="checkbox"/> College Buildings with special features	_____ %
<input type="checkbox"/> Communications Buildings	_____ %
<input type="checkbox"/> Special Schools	_____ %
<input type="checkbox"/> Theaters and similar facilities	_____ %
<input type="checkbox"/> Other	_____ %



<b>Building Type – Group V</b>	<b>Percentage of Project</b>
<input type="checkbox"/> Residences and Specialized Decorative Buildings	_____ %
<input type="checkbox"/> Other	_____ %

<b>Repetitive Design or Duplication of Facilities</b>	
Does the Building Program/Requirements support repetitive design or duplication of Facilities justifying an adjustment in A/E Design Fees?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

<b>Building Program Development</b>	
Will the A/E Agreement require the Development of a Comprehensive Building/Design Program in lieu of one provided by Owner requiring an adjustment in A/E Fees?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

<b>Construction Consultant Services</b>	
Will the University be utilizing a Construction Consultant who will perform some of the services normally provided by the Architect requiring an adjustment of A/E Fees?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

<b>Multiple Prime Trade Contracts</b>	
Will the project be competitively bid and constructed using Multiple Trade Contracts requiring additional services from the A/E?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

<b>Design Build Services</b>	
Will the University be using a Design/Build process, which will result in a reduction in contracted design services and a corresponding adjustment in A/E Fees?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

<b>Architect/Engineer Project Notifications</b>	
<input type="checkbox"/> Advertised through State Division of Construction Management	
<input type="checkbox"/> Local/State Trade Journals	
<input checked="" type="checkbox"/> Posted on Campus Web Pages	
<input checked="" type="checkbox"/> Direct Contact with A/E Companies/Firms	
<input checked="" type="checkbox"/> Other: Newspaper and email distribution list	

THE UNIVERSITY OF ALABAMA

TUSCALOOSA, ALABAMA

**Appointed Consultant Selection Committee (CSC):**

- 1. Joshua Bollinger, Senior Project Manager
- 2. Sam Chen, Director
- 3. William Kilgore, Electrical Engineer
- 4. Greg McKelvey, Executive Director
- 5. Dwight Stewart, Mechanical Engineer

**Qualified Firms/Companies Submitted:**

- 1. Environmental Systems Corporation, Huntsville, AL
- 2. Sain Engineering Associates, Birmingham, AL
- 3. Hood Patterson & Dewar, Norcross, GA

**Ranking of Most Qualified Firms to be submitted to the Physical Properties Committee**

- 1. Environmental Systems Corporation, Huntsville, AL
- 2. Sain Engineering Associates, Birmingham, AL
- 3. Hood Patterson & Dewar, Norcross, GA

**Reviewed and approved by:**

DocuSigned by:  
  
 7178EAF5A5574E6

\_\_\_\_\_  
**Chairman of Consultant Selection Committee**

  
 \_\_\_\_\_  
**Vice President for Finance and Operations and Treasurer**

THE UNIVERSITY OF ALABAMA®



Division of  
**Finance and Operations**  
**Construction Administration**

**Oral Interview Criteria/Focus**  
**High Performance Computing and Data Center**  
**Commissioning Agent**

UA Project No. PLN-23-3287

Date: September 6, 2023

1. **Welcome/Introduction** (*time allotted = 5 minutes*)
  - a. Commissioning Team
    - i. Brief Introduction of your firm and the person or team who is ultimately responsible for project success and who will be on-site most regularly.
  
2. **Commissioning Opportunities/Feedback** (*time allotted = 20 minutes*)
  - a. Describe your team's HVAC and electrical commissioning experience with high performance computing centers.
    - i. Discuss any challenges associated with these types of facilities and lessons learned.
    - ii. Have you experienced any difficulties in commissioning HVAC systems with direct chip level water cooling?
  - b. Describe your team's HVAC and electrical commissioning experience with data centers.
    - i. Discuss any challenges associated with these types of facilities and lessons learned.
    - ii. What are some challenges associated with design and commissioning of backup power systems?
  - c. Describe your team's commissioning experience with large chilled water plants.
    - i. Discuss any challenges associated with these types of facilities and lessons learned.
    - ii. Have you faced any challenges in commissioning chilled water systems with multiple loops with different temperatures?
  - d. Elaborate on your firm's experience with commissioning facilities with expedited construction schedules and multiple bid packages. (provide examples if applicable)
  - e. Present sample of typical project deliverables.

**3. Project Design Schedule (time allotted = 10 minutes)**

- a. Assuming a design commencement date of November 2023 and project bid date of September 2024, discuss you team’s approach toward project schedule and availability.
- b. Discuss your firm’s methodology for guiding the commissioning process throughout a phased project. Consider that multiple bid packages may be created.

**4. Questions & Answers (time allotted = 10 minutes)**

Notes:

- Other criteria may be added as applicable.
- Presentations may be PowerPoint, illustration boards, or any other graphic format.
- If providing hand-outs, please provide at least 5 copies to Selection Committee.



September 26, 2023

Dr. Dana S. Keith  
 Senior Vice Chancellor for Finance and Administration  
 Sid McDonald Hall  
 500 University Boulevard, East  
 Tuscaloosa, AL 35401

Trustee Marietta M. Urquhart  
 Chair, Physical Properties Committee  
 500 University Boulevard, East  
 Tuscaloosa, AL 35401

RE: Consultant Selection Process – Part 1  
 Commissioning Agent  
 High Performance Computing and Data Center  
 UA Project #: 008-23-3287

Dear Dr. Keith and Trustee Urquhart,

Pursuant to Board Rule 415, on September 1, 2023 The Board of Trustees of The University of Alabama (“Board”) approved the Stage I submittal for the High Performance Computing and Data Center Project (“Project”) to be located at 709 Johnny Stallings Drive, Tuscaloosa, AL, at a preliminary total Project budget amount of \$96,000,000.

Pursuant to Board Rule 415, notifications for the Project, including a brief description of the Project location, and preliminary budget were advertised, issued by email to Alabama-based Commissioning Agents and others in the consultant database, and posted on the University campus web page. Firms desiring to be considered were requested to provide brochures to the University outlining their qualifications, relevant experience, and proposed team members by August 14, 2023.

A Consultant Selection Committee, appointed by the University in accordance with the provisions of Board Rule 415, reviewed the submitted brochures and on September 7, 2023, interviewed the following Commissioning Agent firms:

- Environmental Systems Corporation, Huntsville, AL
- Sain Engineering Associates, Inc., Birmingham, AL
- Hood Patterson & Dewar, Norcross, GA

The Consultant Selection Committee then determined the following ranking for the firms deemed most qualified for the Project:

Consultant Selection Process – Part 1  
Commissioning Agent  
High Performance Computing and Data Center  
September 26, 2023  
Page 2

1. Environmental Systems Corporation, Huntsville, AL
2. Sain Engineering Associates, Inc., Birmingham, AL
3. Hood Patterson & Dewar, Norcross, GA

The primary selection criteria used in the ranking of the firms included the following:


1. The firms represented a clear understanding of the Project program and goals.
2. The firms displayed an understanding of and experience with the complex mechanical and electrical systems utilized for High Performance Computing and Data Centers.
3. The firms presented the most favorable listing of qualified engineers and certified commissioning agents along with a commitment to meet the University's schedule for completion of the design and construction of the Project.

Approval is hereby requested for:

1. The ranking of consultant firms listed hereinbefore.
2. Approval to submit these rankings to the Physical Properties Committee for consideration.

If you have any questions or concerns, please feel free to contact me.

Sincerely,



Matthew M. Fajack  
Vice President for Finance and Operations  
and Treasurer

MMF/ccj

Attachment

pc/atchmt: Michael Rodgers  
Tim Leopard  
Joshua Bollinger  
Dwight Stewart

Consultant Selection Process – Part 1  
Commissioning Agent  
High Performance Computing and Data Center  
September 26, 2023  
Page 3

\*\*\*\*\*

The above listing of firms ranked as the most qualified for the Project are hereby approved and by forwarding this executed document to the Chancellor’s office, the rankings are approved for inclusion in the Board materials to the November 2 - 3, 2023, Physical Properties Committee.

\*\*\*\*\*

DocuSigned by:

*Dana S Keith*

9C2EFD005B8C48D...

**Dr. Dana S. Keith: Recommend for Approval**  
Senior Vice Chancellor for Finance and Administration

DocuSigned by:

*Marietta Urquhart*

73592E8B4A08472...

**Trustee Marietta M. Urquhart: Approval Recommended**  
Chair of the Physical Properties Committee

# HIGH PERFORMANCE COMPUTING AND DATA CENTER

## LOCATION MAP

