UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899

April 18, 2024

MEMORANDUM FOR THE RECORD

From: Mark Liau
NEPA Coordinator

Subject: Categorical Exclusion

Project Title: University of Alabama Center for High Performance Computing
Location: 709 Johnny Stallings Drive
Tuscaloosa, AL 35401

The National Environmental Policy Act (NEPA) and associated implementing regulations (40 CFR Parts 1500-1508) require that all major actions by federal agencies be reviewed with respect to the environmental consequences on the human environment. The National Institute of Standards and Technology (NIST) is providing a congressionally directed funding grant for the University of Alabama Center for High Performance Computing. Consequently, NEPA and the associated implementing regulations apply to this project.

This memorandum summarizes the determination that the University of Alabama Center for High Performance Computing has been found to be categorically excluded from further environmental review under NEPA.

Description of the Action

This project entails the construction and operation of a new building of approximately 45,000 square feet to house the Center for High-Performance Computing (HPC) at the University of Alabama, Tuscaloosa Campus. The project will include the purchase of HPC equipment and will provide an appropriate environment for the operation of this equipment. The project will include a Sensitive Compartmented Information Facility to support critical work around water security and to provide support for other potential secure operations.

This project will also include construction of a new electrical substation, a cooling tower and an emergency power generator. The proposed location of the substation, cooling tower and emergency generator is adjacent to the HPC building. Alabama Power high voltage transmission lines are nearby and will provide adequate electrical capacity for current use and projected growth. The cooling tower will provide an efficient means of cooling the center and the high-performance computing equipment.

This project will be accomplished in accordance with all applicable state and federal environmental and safety regulations. All applicable regulatory permitting will be obtained.

Specific Considerations of this Action and any Extraordinary Circumstances

- **Existing Site**

The proposed site for this project is predominantly greenspace maintained as open lawn and a campus parking lot. Adjacent to the site are campus buildings and parking lots. Located north of the site is the Capstone Retirement Village, a luxury residential community.

- **Noise**

Adjacent to the installation site, the cooling tower is expected to produce significant noise levels (72 to 85 decibels depending on the location). Additionally, the emergency generator is also expected to produce significant noise levels, but only on a short-term basis during testing or power outages. Noise will be controlled at these sources by installing barriers around the cooling tower and emergency generator.

The nearest sensitive noise receptors include the Capstone Retirement Village and the DCH Medical Center; both of which are approximately 1,000 feet from the project site.

Existing noise sources in the area include vehicle traffic on McFarland Boulevard, U.S. Route 82, including entrance and exit ramps, and University Boulevard.

Noise levels produced at the cooling tower and emergency generator will be controlled sufficiently by barriers and reduced by the distance to receptors to meet local noise ordinance. UA has committed to maintaining current ambient noise levels at sensitive receptors.

Temporary noise impacts are expected during construction of the Center for High-Performance Computing. These impacts will be minimized by limiting the hours of construction (in accordance with UA Construction policies) to the daytime.

- **Endangered Species and Critical Habitats**

According to the U.S. Fish and Wildlife Service, there are threatened and endangered species that could be found within the proposed project site vicinity. The proposed project site does not meet the critical habitat requirements for any of the listed species; therefore, no impacts to threatened or endangered species are anticipated. Consultation with the U.S. Fish and Wildlife Service indicated that the project would have "no significant impact on fish and wildlife resources."

- **Building Staffing/Utilities**

Staffing and student population are expected to increase due to the construction and operation of the new building. Intermittently approximately 50 staff and students will work/study at the new facility. Local roadways have capacity for the temporary increase in traffic during construction and for the ongoing increase in traffic due to increases in staffing and students attending the University.

Tuscaloosa water systems have the capacity for the proposed water consumption and wastewater production at the new building. Planned electricity use and natural gas use for the new building can be supplied by the local utilities.

- **Greenhouse Gas Emissions**

Energy efficiency measures will reduce greenhouse gas emissions resulting from the heating and cooling of the building. This building will be built in accordance with State of Alabama Building Energy Code, ASHRAE 90.1 – 2013. Energy conserving measures include LED lighting, insulated windows and building envelope, and high efficiency heating ventilation and air conditioning systems.

- **Wetlands, Flooding Potential and Resilience**

According to the United States Fish and Wildlife Service National Wetlands Inventory Map, there are no known wetlands on or adjacent to the proposed site. The site is mapped entirely as Zone X, outside the 100- and 500-year flood zones (FEMA 2010).

- **Hazardous Materials**

Any hazardous materials found at the project site will be handled and disposed in accordance with state and federal regulations.

- **Historic/Cultural Significance**

The Alabama Historical Commission has reviewed this project and determined that it will have no impact on historic properties (Attachment A)

- **Environmental Justice**

This project is not expected to have disproportional adverse human health or environmental impacts to overburdened and underserved communities, including minority, Tribal, or low-income populations.

Adjacent to the project site are campus buildings and parking lots. Located north of the site is the Capstone Retirement Village, a luxury residential community.

Planned construction of a campus building at the site has been a documented component of UA campus planning as shown in the Campus Master Plans of 2006, 2012, and 2017. A public meeting was held on June 1, 2023. No public comments were received at the meeting and no controversy with the proposed project has been noted.

Effects of the Action

No significant adverse impacts on the environment are expected from this action.

Categorical Exclusion

The activities associated with this project fall within the criteria of the following Department of Commerce Categorical Exclusion (CATEX):

> A–2, New construction upon or improvement of land where all of the following conditions are met:
> (a) The site is in a developed area and/or a previously disturbed site,
>
> (b) The structure and proposed use are compatible with applicable Federal, Tribal, State, and local planning and zoning standards and consistent with Federally approved State coastal management programs,
>
> (c) The proposed use will not substantially increase the number of motor vehicles at the facility or in the area,
>
> (d) The site and scale of construction or improvement are consistent with those of existing, adjacent, or nearby buildings, and
>
> (e) The construction or improvement will not result in uses that exceed existing support infrastructure capacities (roads, sewer, water, parking, *etc.*). This CE does not apply where the project must be submitted to the National Capital Planning Commission (NCPC) for review and NCPC determines that it does not have an applicable Categorical Exclusion. DOC is not a major land managing agency in the Federal government. Department activities involving new construction or improvements of land typically involve single buildings and supporting infrastructure in a single locality. Any potential for environmental impacts would be of a small scale and confined to more localized impacts.

The proposed project meets the criteria of CATEX A-2 as follows:

(a) The proposed site has been disturbed during previous nearby construction of university buildings.

(b) Located on the campus of the University of Alabama, the project is compatible with applicable Federal, Tribal, State, and local planning and zoning standards.

(c) Increases in the number of motor vehicles at the facility or in the area are not expected to be significant.

(d) The proposed new building will not will not result in uses that exceed existing infrastructure capacities. The project does not require review by the NCPC.

The proposed project: University of Alabama Center for High Performance Computing is categorically excluded from the need for further environmental review under NEPA. Any changes to the above project will require additional NEPA review.

MARK LIAU Digitally signed by MARK LIAU Date: 2024.04.18 15:56:03 -04'00'

Mark Liau
NIST NEPA Coordinator

Date

ROBERT VAUGHN Digitally signed by ROBERT VAUGHN Date: 2024.04.19 09:53:00 -04'00'

Robert C. Vaughn
NIST Chief Facilities Management Office

Date

Attachment A, Alabama Historical Commission Letter

ALABAMA HISTORICAL COMMISSION

468 South Perry Street
Montgomery, Alabama 36130-0900

Lisa D. Jones
Executive Director
State Historic Preservation Officer

Tel: 334-242-3184
Fax: 334-242-1083

October 23, 2023

Phillip Neuberg
NIST
100 Bureau Drive
Gaithersburg, MD 20899

Re: AHC 24-0014
University of Alabama High Performance Computing and Data Center
Tuscaloosa County

Dear Mr. Neuberg:

Upon review of the above-referenced project, we agree that site 1Tu1172 is not eligible for the National Register of Historic Places and the proposed undertaking will have no effect on historic properties.

We appreciate your commitment to helping us preserve Alabama's historic archaeological and architectural resources. Should you have any questions, please contact Amanda McBride at 334.230.2692 or Amanda.McBride@ahc.alabama.gov. Have the AHC tracking number referenced above available and include it with any future correspondence.

Sincerely,

Lee Anne Hewett

Lee Anne Hewett
Deputy State Historic Preservation Officer

LAH/EDS/lah