



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

September 29, 2023

MEMORANDUM FOR THE RECORD

From: Michael Blackmon
NEPA Coordinator
National Institute of Standards and Technology

Subject: Categorical Exclusion

Project: Russ Research Center Digital Design Studio

Location: University of Dayton
1520 South Main Street
Dayton Ohio

The National Environmental Policy Act (NEPA) and associated implementing regulations (40 CFR Parts 1500-1508) require that all major federal actions be reviewed with respect to their environmental consequences. The National Institute of Standards and Technology (NIST) has selected the project: Russ Research Center Digital Design Studio for a federal funding grant. Consequently, NEPA and the associated implementing regulations apply to this project.

This memorandum summarizes NIST's environmental review of this project and the determination that this project is categorically excluded from further environmental review under NEPA.

Description of the Action

Recent years have seen a dramatic realization of the value and necessity of “digital engineering.” in how America develops, validates, manufactures, and sustains new products. Business and industry, as well as our military, are changing to a digital approach for how they innovate and create. The Digital Design Studio (DDS) will serve as a centralized location equipped with the latest hardware and software for:

- 1) Accelerating systems development through the use of model-based systems engineering emphasizing the use of digital design and agile software development methods creating digital twins/digital threads of products which can be rapidly produced using advanced manufacturing methods.
- 2) Training the current workforce in these new methods.
- 3) Educating college students in the use and application of digital tools preparing them for future workforce needs.
- 4) Providing a facility for industry, academia, and government to collaborate and learn to apply and use digital tools.

The DDS will be located at the University of Dayton’s Digital Transformation Center Seedling and will be operated by Ohio University. The DDS will utilize approximately 30% of the 8,490 square feet of space (~2547 sq. ft.) that makes up the entire Digital Transformation Center (DTC) Seedling. The DTC is located on the second floor of a two-story building owned by the University of Dayton and located at 1520 South Main Street in Dayton Ohio.

The project includes demolition of the existing space, construction (framing, drywall, flooring, mechanical and electrical), architectural fees, information technology related costs, signage, equipment, and computer/software acquisition, i.e., digital engineering equipment and the software needed to run it. This equipment will include computers, video screens, routers, firewalls, augmented/virtual reality systems, and workstation/furniture units.

Impacts of the Action and Extraordinary Circumstances

NIST has determined that no significant environmental impacts are expected from the interior renovations planned, and the equipment purchases, installation, and operation.

The project has been reviewed for compliance with the National Historic Preservation Act and has been determined to have no adverse impacts.

Energy saving measures (i.e., LED lighting) will be taken to reduce the overall energy consumption of the facility and reduce the greenhouse gas emissions resulting from the building operations. The NIST Grant requires, where feasible, that sustainable, energy efficient design principles be implemented for the purpose of reducing pollution.

Categorical Exclusion

The activities associated with this project fall under the following Department of Commerce Categorical Exclusions:

A-1 Minor renovations and additions to buildings, roads, airfields, grounds, equipment, and other facilities that do not result in a change in the functional use of the real property, and

A-7 Acquisition, installation, operation, and removal of communications systems, data processing equipment, and similar electronic equipment.

Since this grant will only fund interior renovations and equipment purchases, the project meets the conditions specified in categorical exclusions A-1 and A-7.

The proposed project, Russ Research Center Digital Design Studio is categorically excluded from the need for further environmental review under NEPA. Any changes to the above project will require additional NEPA review.

Michael Blackmon
NIST NEPA Coordinator

Date

R.C. Vaughn
NIST Chief Facilities Management Officer

Date