

Historic Preservation at NIST

a Presentation to the Federal Facilities Council



Introduction

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2016 – present

Federal Preservation Officer
Architect & Planner
Office of Facilities and Property Management

2007 – 2016

Federal Preservation Officer
Planning Branch, Chief
Office of Research Facilities
National Institutes of Health

2001 – 2007

Historic Preservation Consultant, AECOM

1998 – 2001

Senior Preservation Architect
Yale University

Master of Architectural History, University of Virginia
Bachelor of Architecture – University of Illinois

Purpose

Evolution of a national preservation program as exemplified by one federal agency and a look at the tools used in the implementing and maintaining a preservation ethos

the National Bureau of Standards

NIST



Seattle, 1905 NBS Inspector
with confiscated weight scales

Courtesy of NIST Archives

THE EVENING STAR, MONDAY, MARCH 11, 1901

CORRECT MEASURES

Function of the New Bureau of
Standards.

LABORATORY TO BE ERECTED

Prof. Stratton, the Director, De-
tails Need of Establishment.

A HANDICAP REMOVED

A new bureau of the government, authorized by the last Congress, will be established in this city in the near future and will give employment to a number of persons. It is to be known as the national bureau of standards and is to be under the control of the Treasury Department. A separate building for a laboratory, to cost not to exceed \$200,000, is to be erected on a site to be purchased at a cost of \$25,000.

Mr. Samuel W. Stratton of Chicago has been appointed by the President to be chief of the bureau at an annual salary of \$5,000. Prof. Stratton is to have the following as-



Director Stratton.

stant, to be appointed by the Secretary of the Treasury: one physicist, at an annual salary of \$3,500; one chemist, at \$3,500; two assistant physicists or chemists, each at an annual salary of \$2,200; one laboratory assistant, at \$1,800; one laboratory assistant, at \$1,200; one secretary, at \$2,000; one clerk, at \$1,200; one messenger, at \$750; one sten-

NBS chartered 1901, First
Director Samuel W. Stratton.
renamed NIST in 1988

Courtesy of NIST Archives

Nationally Recognized & Historically Significant Scientific Research Labs



Gaithersburg, MD NIST campus
Campus, constructed 1962 – 1966 Listed in
The National Register of Historic Places 2021

U.S. Dept. of Commerce Boulder Laboratories
Bldg. 1 - The Radio Building, constructed 1954
and Determined Eligible for the NRHP in 2016



Other locations determined Eligible for listing in the NRHP: Fort Collins, CO and Kekaha, HI

How did a Scientific Research Agency get involved with Historic Preservation?



The National Historic Preservation Act of 1966
Signed into law October 15, 1966
(**NHPA**; Public Law 89-665; 54 U.S.C. 300101 *et seq.*)

Key Provisions established:

the expansion of the National
Register of Historic Places (**NRHP**)
the State Historic Preservation
Offices (**SHPOs**) – *in all 50 states
and U.S. Territories*
The Advisory Council on Historic
Preservation (**ACHP**)

**Section 106 (Federal Agency
Responsibilities)**

NIST Conducts Historic Assessment

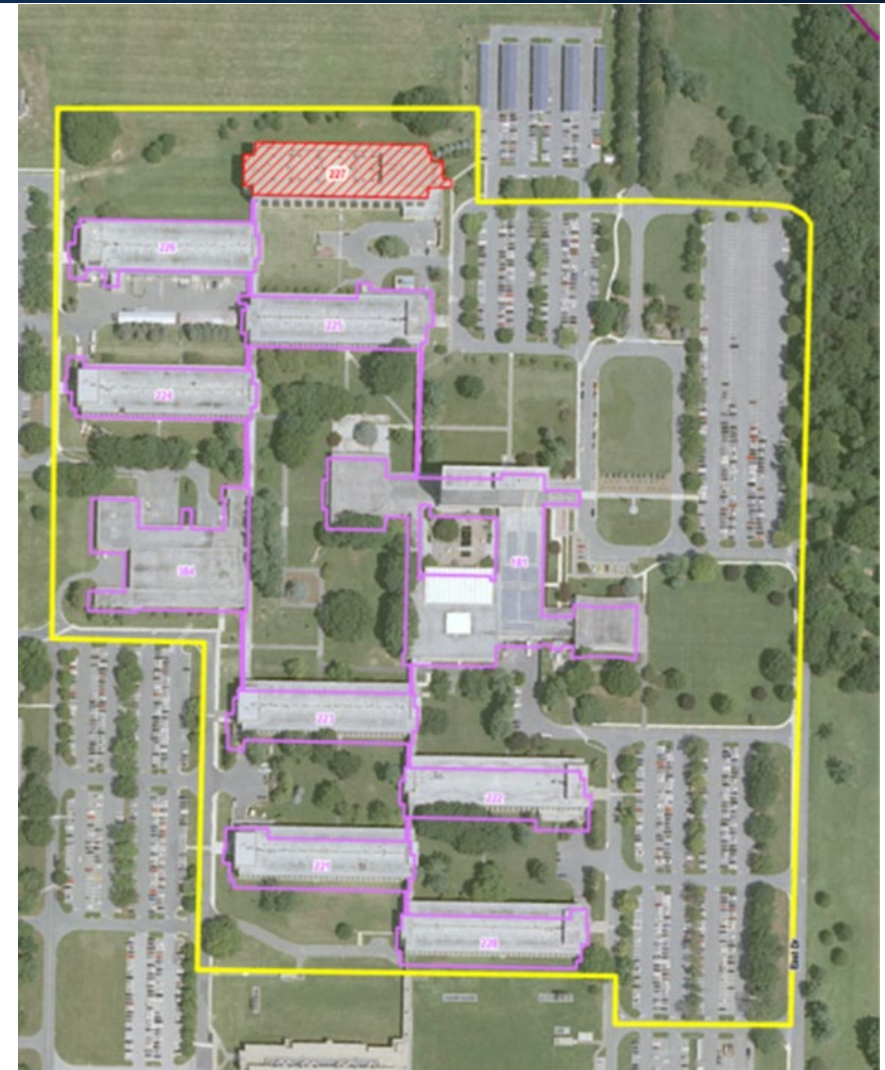


- 2014 - The Corridor Cities Transitways (CCT), a project of the MTA, req'd compliance with NEPA
- NEPA (the National Environmental Protection Act) requires an historic assessment of affected properties
- In 2014 MTA determined that the entire campus appeared eligible for listing in the NRHP and thus informed the Maryland Historical Trust (MHT)
- Upon receipt of MTA's recommendation, MHT agreed to await our determination



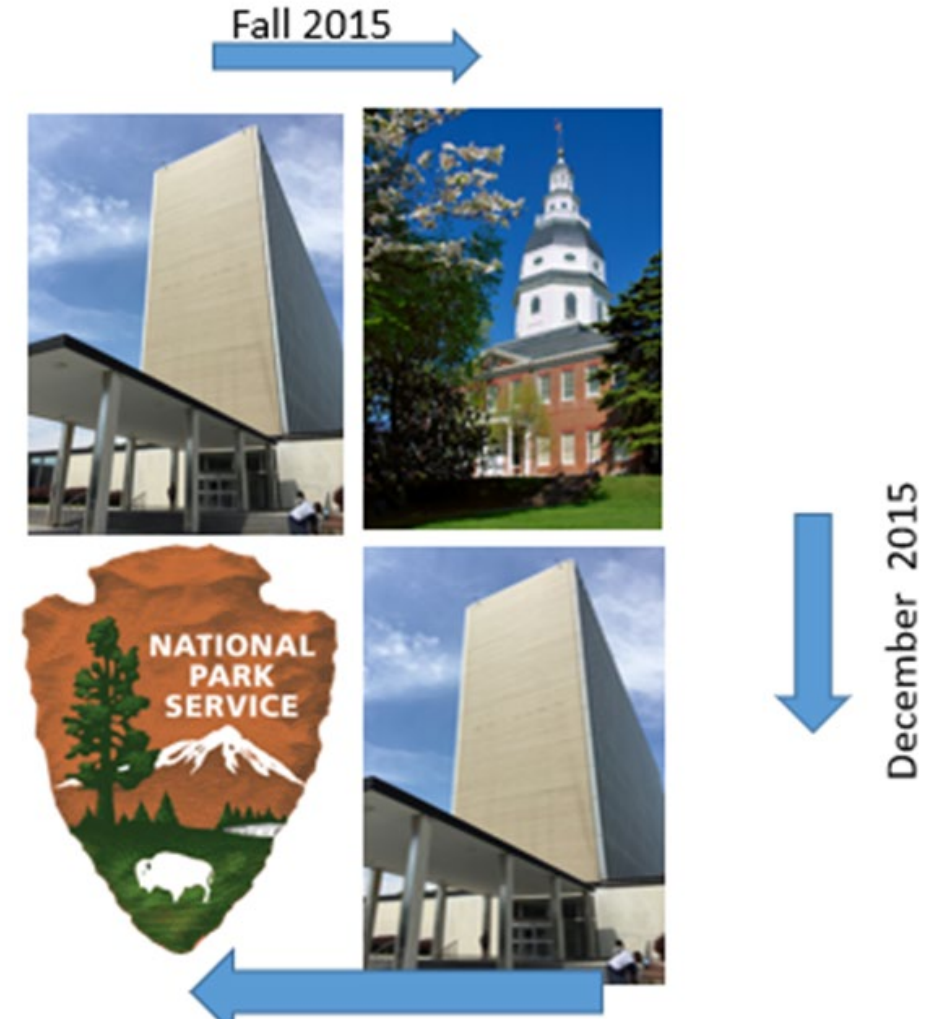
Originally Proposed Historic District

- By law, only the Federal Agency, can make a Determination of Eligibility for property it owns
- So, in 2015, NIST contracted with a seasoned historic preservation consultant to conduct an exhaustive campus assessment,
- That resulted in a proposed Historic District limited to the center of the Campus – 10 buildings, the flagpole, gateposts, and the landscape itself



Final Determination of Eligibility

- NIST shared its Historic Assessment with MHT for *Concurrence*
- MHT reviewed, and stated that the entire campus is eligible for listing
- NIST objected and then exercised its right as a federal agency to bring the disagreement to the NRHP “Keeper” for final decision (no appeals allowed).
- June 2016 --Keeper reviewed materials and concurred with MHT that the entire 579-acre campus is eligible for listing as a National Register Historic District



Listed versus Eligible Properties

- Keeper's decision is final – no appeals
- Determination of Eligibility is required by the law.
- Actual listing in the National Register is NOT required.



Whether actually listed in the NRHP or only determined eligible for listing in the NRHP, the protections, under the law (Section 106 of the NHPA) are the exactly same.

- NIST resoundingly decided to go ahead with formal listing

Campus NRHP Historic District as listed 2021

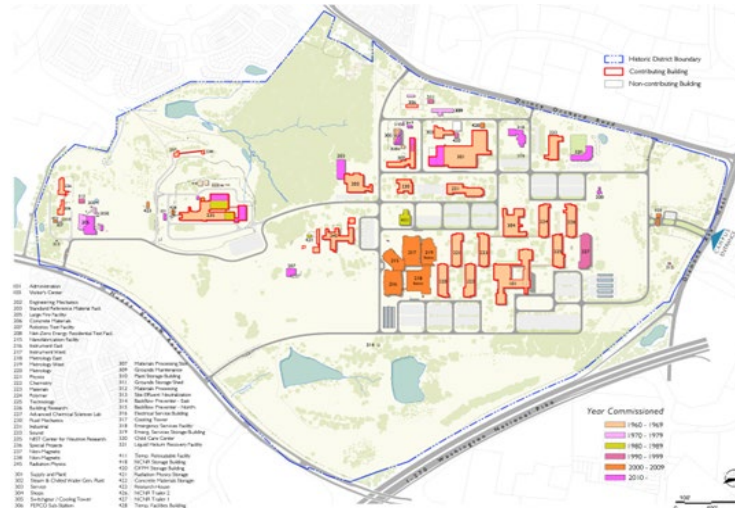


Historic District is recognized for:

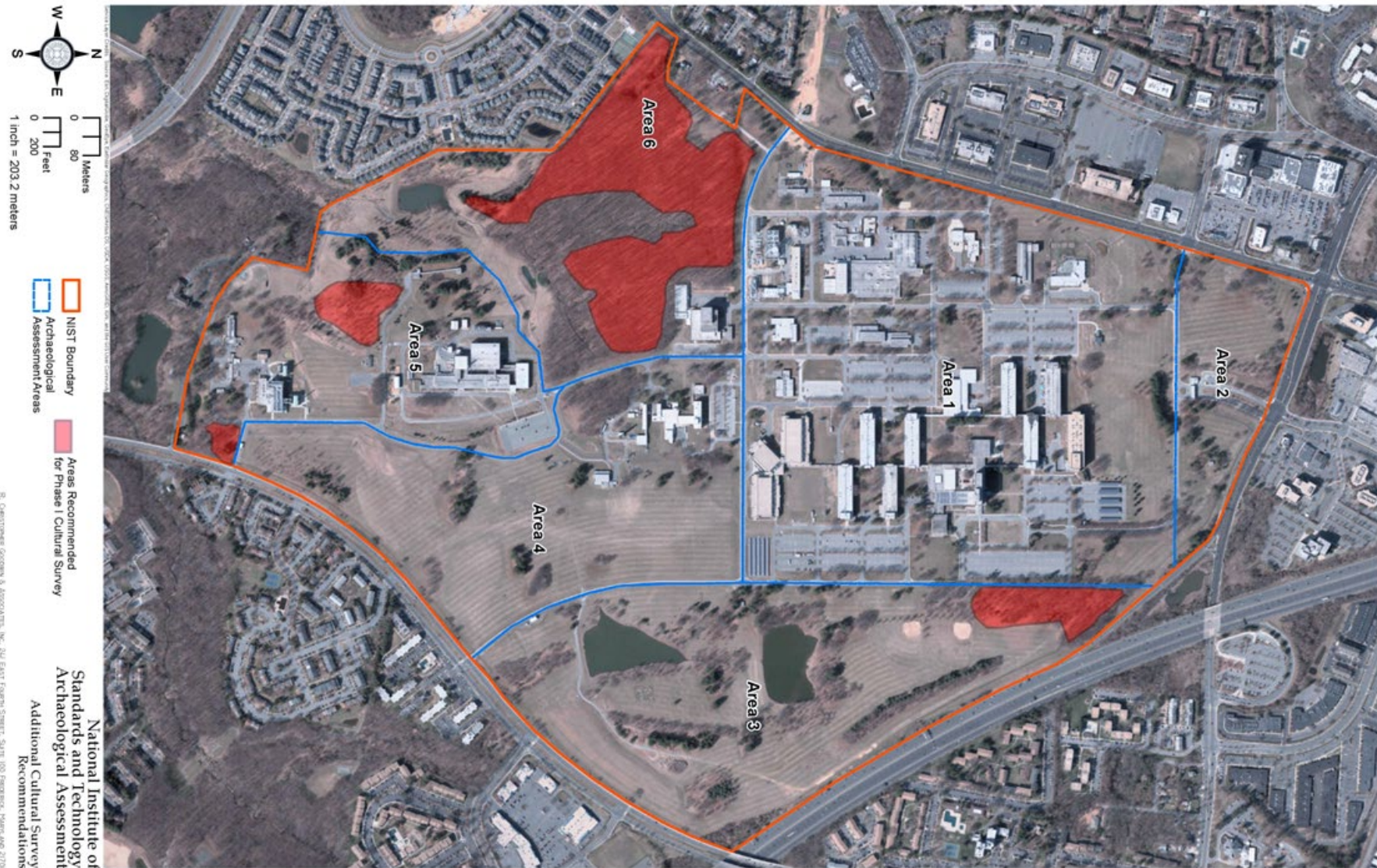
- Association with developments in science and technology
- Significant example of Post-WW II research campus design

Implications:

- NIST is the steward of all cultural resources within the campus
- All buildings constructed in 1960's are contributing resources to the District
- Campus improvements are reviewed for compliance with federal preservation standards



Archeological Resources at Gaithersburg



Following our above ground property survey, NIST then initiated a Phase 1 Archeological Survey of the campus.

Historic Preservation at NIST Boulder



Boulder Labs - Building 1

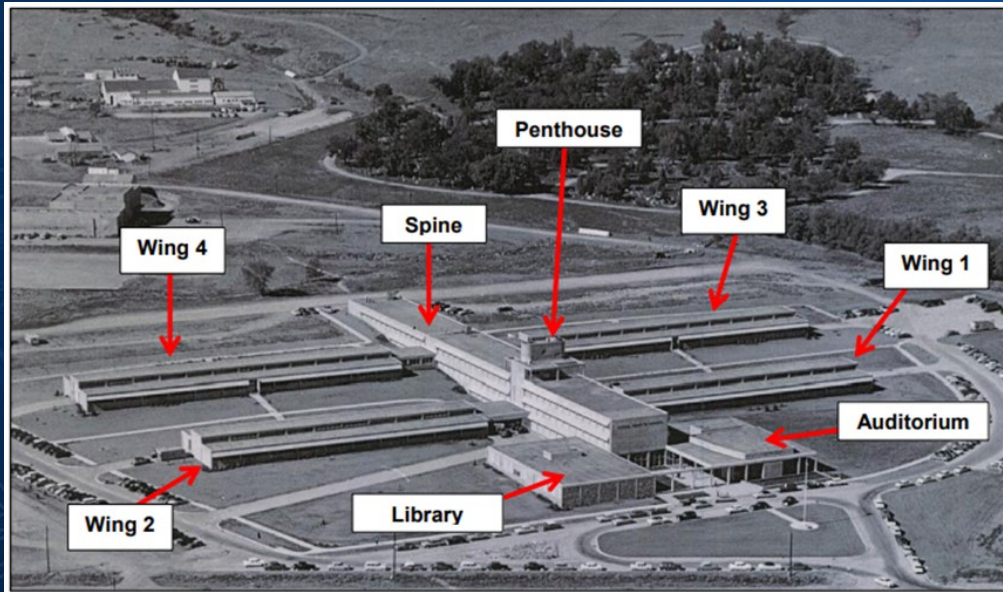


Figure 2-6. Building 1 in the Mid-1950s (view west; annotations added by sDC and AECOM; photograph courtesy of Carnegie Library for Local History, Boulder, Colorado, Chamber of Commerce Collection)

- 1954 AIA Award winning design by Luckman & Pereira
- Consisting of four wings following the contours of the Flat Iron Mountain Range of the Rockies to the west.
- Wing 6 added from 1956-1958; Wing 5 built in 1962

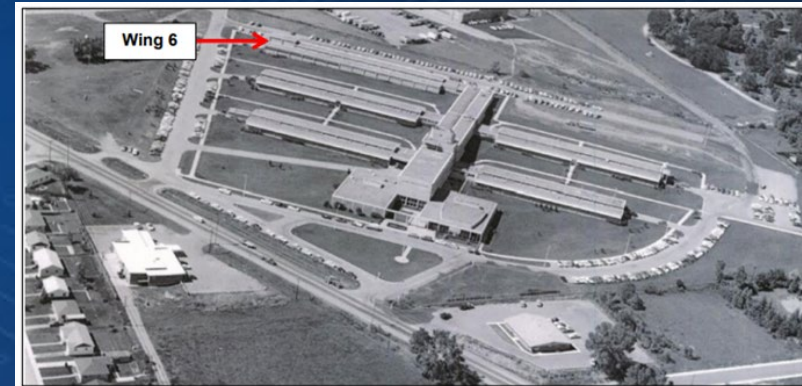
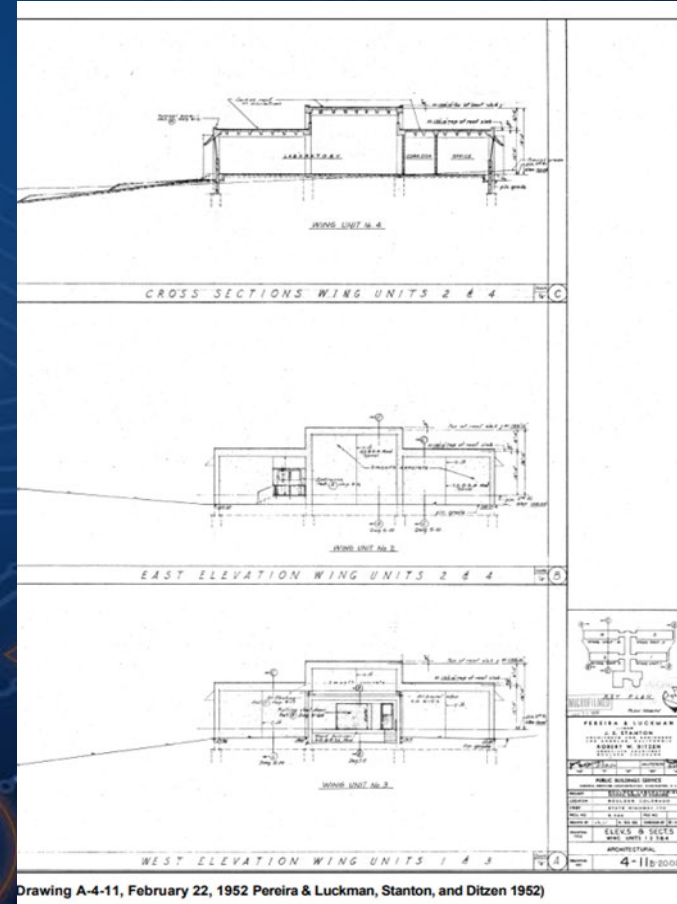


Figure 2-7. Building 1 Circa 1960 (view southwest; annotations added by studiotrope Design Collective [sDC] and AECOM; photograph courtesy of Carnegie Library for Local History, Boulder, Colorado, Chamber of Commerce Collection)



Figure 2-9. Building 1 after the Construction of Wing 5 (view southwest; annotations added by sDC and AECOM; photograph courtesy of Carnegie Library for Local History, Boulder, Colorado, Chamber of Commerce Collection)

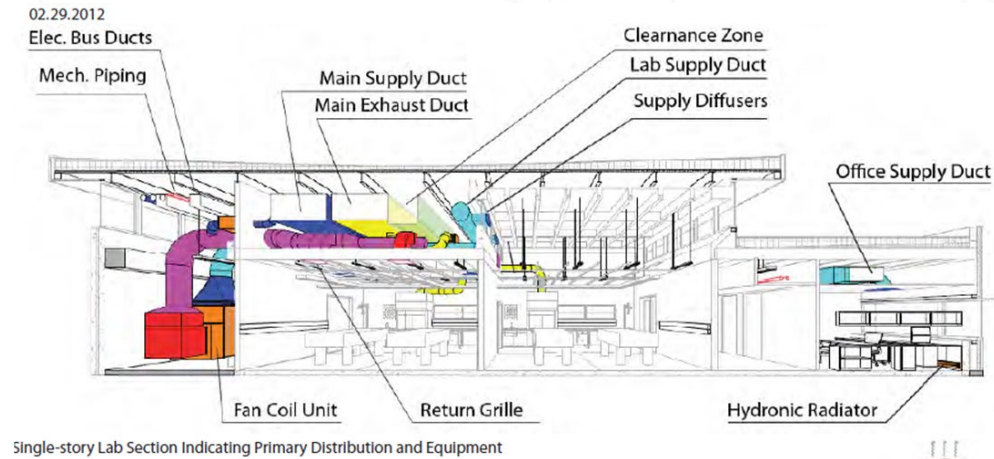
Bldg. 1 – 2014 Existing Conditions



Bldg 1. Section at Wings 3 & 6

Sectional Diagram and Elevational Rendering showing new utility service corridor (to the left) designed to achieve seismic resistance and new plenum/chase over former roof

Graphics courtesy of Smith Group JCC



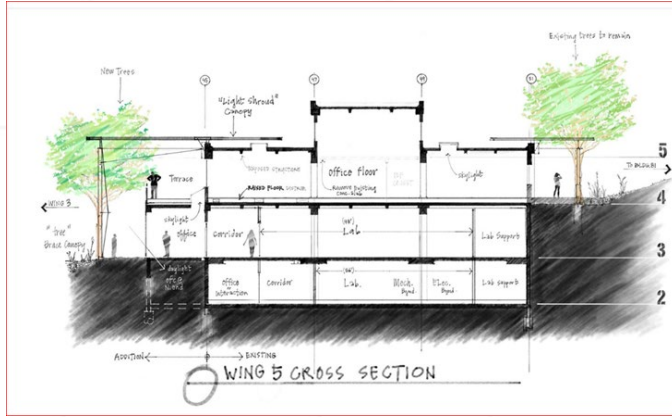
Bldg. 1 – 2016 Existing Conditions



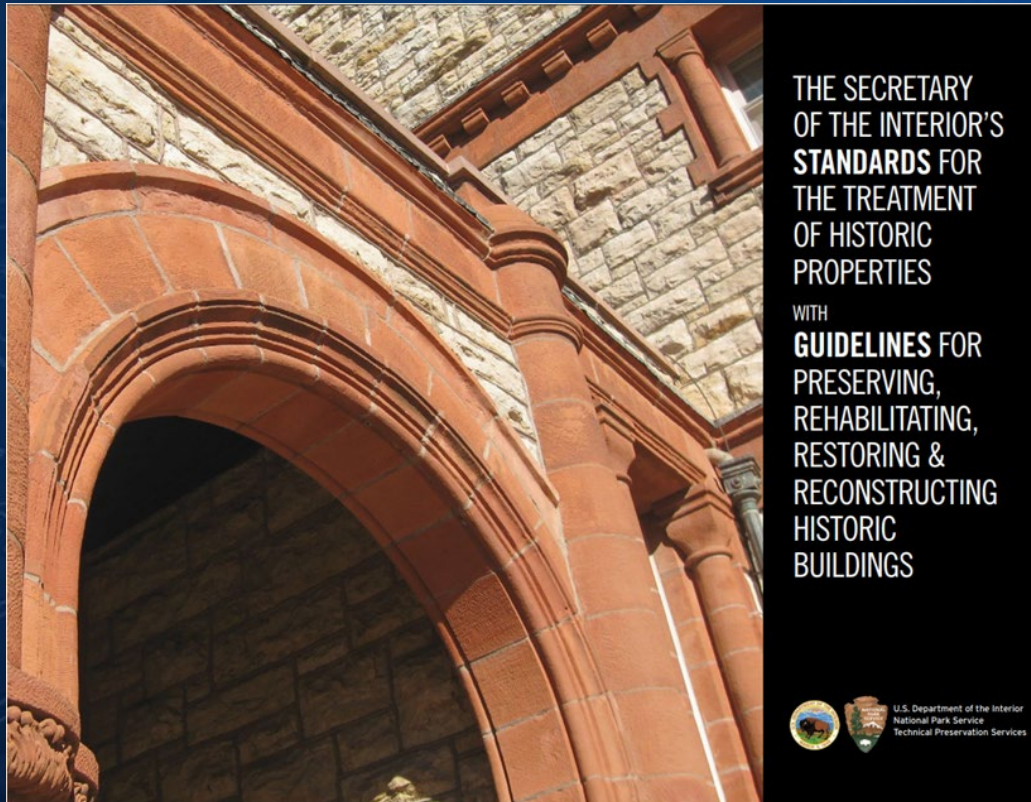
Photos courtesy of NIST federal preservation office, 2016



Bldg 1. 2023 No Adverse Effect



Secretary of the Interior's Standards



Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

Standards for Rehabilitation

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Bldg. 245 - Gaithersburg



Original Slide View of North Façade, ca. 1965

Oblique View of North Façade, 2026



Documentation of Bldg. 245 - Gaithersburg

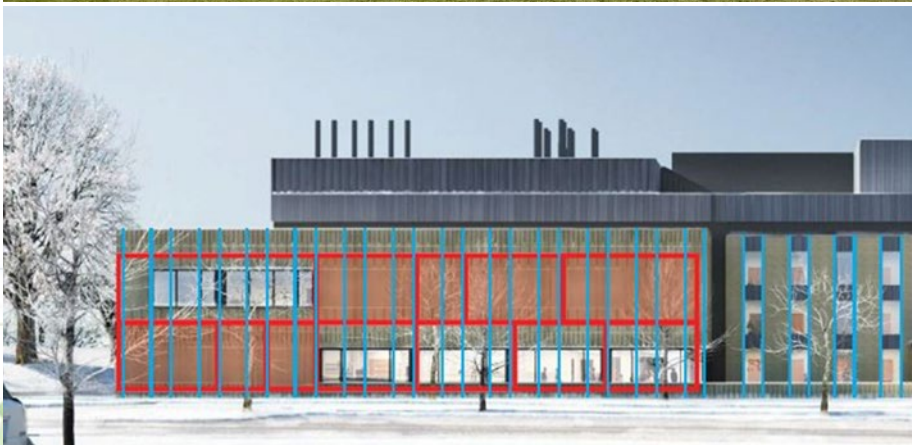


2016 Color Presentation Drawings showing solid void rhythm of North Façade, *courtesy of HenselPhelps/ZGF Architects*

Design – Bldg. 245, Gaithersburg



Images – Bldg. 245, Gaithersburg



Tools

NIST

Search NIST

Menu

OFFICE OF FACILITIES AND PROPERTY MANAGEMENT (OFPM)

Historic Preservation at NIST

Boulder Laboratories

Fort Collins, CO

Gaithersburg Campus

Kehaka, Kauai Campus

Resources


Historic Preservation at NIST

Since its establishment in 1901 as the National Bureau of Standards, (later renamed in 1988) NIST has been committed to setting standards worldwide. Proud steward of scores of historically important research laboratories, facilities, architecturally significant structures and landscapes, historic preservation has become an integral component of the planning, design, operations and maintenance activities across all of its campuses nationwide. NIST's received the first ever [Smart Growth Excellence Award from Preservation Maryland in 2019](#) for the robust inclusion of historic preservation planning principles within the NIST [Gaithersburg Campus Master Plan](#).


NIST's Federal Preservation Officer (FPO) within OFPM's Capital Asset Management and Facilities Planning Group, is responsible for review and approval of proposed changes to dozens of building exteriors, interiors, structures, grounds and landscape elements that have been determined eligible for listing in the National Register of Historic Places (NRHP).

The [National Register of Historic Places \(U.S. National Park Service\)](#) recognizes districts, buildings, structures, objects, and landscapes for their significance in American history, archeology, architecture, engineering, or culture, and identifies them as worthy of preservation. The National Register is a program of the U. S. Department of the Interior, National Park Service, and is administered in each state by that state's respective Historic Preservation Officer, or [SHPO](#).


In Gaithersburg the entire 579-acre campus with 62 structures and several associated landscape features has been determined eligible as an historic district. In Boulder, all of Building 1 (including much of the original interior) has been determined eligible. Broadcast and transmission facilities at the Ft. Collins, CO and Kehaka, HI campuses have been determined eligible, as well. For a complete list of NIST owned properties determined eligible for NRHP listing, as well as more specific information concerning that campus' historic properties, please select one of the individual campus tabs.




NIST Gaithersburg



Boulder, CO



Fort Collins, CO



Kehaka, Kauai

Programmatic Agreements

Most Campuses have

Programmatic Agreements that

- facilitate timely review of routine maintenance activities and
- tailor the standard Section 106 process to better fit in with OFPM (NIST) decision making
- ensure that all work complies with the Secretary of the Interior's Standards (SOI Standards)
- Allows for Emergency Action by Facilities Services



Programmatic Agreement Among
The National Institute of Standards and Technology
and
The Colorado State Historic Preservation Officer
Regarding the Stewardship and Management
of the
National Institute of Standards and Technology's

Fort Collins Campus

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- B. Programmatic Allowances
- C. Historic Structures Report
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Historic Preservation at NIST: an Award Winning Program



Discussion and Questions

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