

develop a comprehensive plan to achieve climate neutrality as soon as possible, and to initiate tangible actions to reduce greenhouse gas emissions.

The ACUPCC also mandates the establishment of a policy that all new campus construction meets LEED Silver criteria or equivalent. LEED, or Leadership in Energy & Environmental Design, is a construction project rating system that considers how our buildings and communities are designed, constructed, maintained and operated, and recognizes best practices in building strategies. The LEED program is administered by the United States Green Building Council (USGBC), a diverse group of construction, design, and environmental organizations, nonprofits, students, educators, lawmakers and citizens that seeks to promote the vision of a global sustainable built environment within the next generation.

At its core, LEED is a program that provides third-party verification of green buildings. Building projects satisfy prerequisites and earn points to achieve different levels of certification (basic LEED certified, Silver, Gold and Platinum) for different types of construction projects. At present, campus construction projects are being designed and constructed according to LEED-NC Silver criteria, though formal LEED certification is not always being sought.

Although the University is not at present seeking LEED certification for major development projects as a rule, LEED project credit checklists are still being used to evaluate the environmental aspects and energy efficiency of the designs being implemented. Therefore, the nature of the criteria in those checklists is of importance with respect to the preservation and re-use of the institution's historic buildings. A coalition of national architectural and preservation organizations has been working with the USGBC to develop and revise LEED rating systems to more adequately reflect the sustainability attributes and opportunities offered by historic buildings. This work is reflected in the new LEED v4 suite, with at least 10 points directly supporting preservation activities added. Most existing buildings will be able to easily achieve a basic "LEED Certified" rating.

To successfully apply sustainable principals to its historic buildings, UMaine must rely on design teams familiar with both green design criteria and preservation standards. The Secretary of the Interior's Standards for the Treatment of Historic Properties, incorporated in the Tier One guidelines, address energy efficiency by recommending the application of time-proven best practices to the rehabilitation of historic buildings:

Some features of a historic building or site such as cupolas, shutters, transoms, skylights, sunrooms, porches, and plantings can play an energy-conserving role. Therefore, prior to retrofitting historic buildings to make them more efficient, the first step should always be to identify and evaluate existing historic features to assess their inherent

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energy-conserving potential. If it is determined that retrofitting measures are appropriate, then such work needs to be carried out with particular care to ensure that the building's historic character is retained.

Based on the consideration of the University's commitment to sustainable design and the preservation and continued use of the Tier One historic buildings, we provide the following Guideline for all construction projects within the Tier One area, and Recommendation regarding the application of LEED for New Construction and Major Renovations to individual construction projects:

Guideline

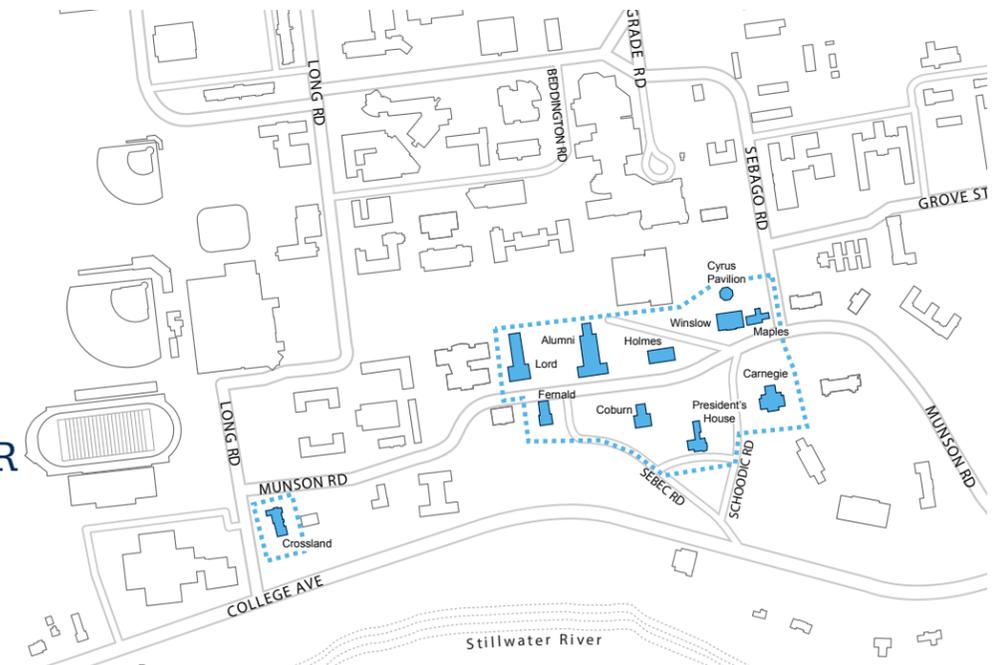
The application of appropriate sustainable design principles (such as LEED criteria or equivalent) and the Secretary of the Interior's Standards and Guidelines for Rehabilitation to historic Tier One buildings that are to undergo preservation, rehabilitation, and/or restoration, and /or that are to be expanded, is encouraged, according to the Governor's Executive Order on green building standards now in effect and in recognition of the University of Maine's subscription to the American College & University Presidents Climate Commitment.

The University acknowledges that the application of LEED or other equivalent sustainability criteria to the Institution's historic buildings continues to evolve and should be approached with care to ensure that character-defining materials, features, and systems are treated appropriately and respectfully; and acknowledges that these materials, features and systems have intrinsic value with regard to energy efficiency and sustainability that may not be measurable or quantifiable under current standard rating systems.

Recommendation

The University of Maine should continue to use LEED Silver or higher certification as a target for building performance, for both new construction and preservation/ rehabilitation projects.

In conclusion, those charged by University of Maine governance with the stewardship of the institution's historic buildings should think long-term about the way buildings deteriorate over the years; the way they are maintained and restored, when necessary; and how they can be adapted for new uses. With the application of these design guidelines, and the execution of appropriate preservation and green design means and methods, the remarkable historic resources of the Orono campus will endure for the use, enjoyment, and benefit of the University of Maine community. Using preservation-based sustainability, which is the most comprehensive approach, today's designers and planners can meet the needs of present constituencies without compromising the ability of future generations to meet theirs.



## NATIONAL REGISTER HISTORIC DISTRICT TIER ONE

# DESIGN GUIDELINES

### Introduction and Process

The University of Maine Campus Planning Committee, or its designated subcommittee, will use The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings (the Secretary's Standards), for the evaluation of proposed projects relating to the existing buildings of the Orono Campus Historic District. Projects involving additions to historic buildings in the district will be subject to both the Guidelines for New Construction contained in the University of Maine Campus Master Plan and the Secretary's Standards.

The Secretary's Standards are built upon identifying, retaining and preserving character-defining features. These are architectural materials and features that are important in defining the building's historic character and which must be retained in order to preserve that character. Character-defining features include but are not limited to:

- Major exterior materials such as masonry, wood, and metal, and the way they are formed and detailed
- exterior features, such as roofs, porches and windows
- interior materials such as plaster and paint;
- interior features such as moldings and stairways, room configuration and spatial relationships, structural, mechanical and electrical systems; and
- the building's site and setting.

The Secretary's Standards are categorized by treatment type:

1. Preservation
2. Rehabilitation
3. Restoration
4. Reconstruction



Alumni Hall



Carnegie Hall



Coburn Hall



Crossland Hall



Cyrus Pavilion



Fernald Hall



Holmes Hall



Lord Hall



The Maples



President's House



Winslow Hall

## 1. Preservation

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction.

Preservation is recommended when the property's distinctive materials, features and spaces are essentially intact and thus

convey the historic significance without extensive repair or replacement; when depiction at a particular period of time is not appropriate; and when a continuing or new use does not require additions or extensive alterations.

New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

## 2. Rehabilitation

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 character-defining features which convey its historical, cultural, or architectural values.

Rehabilitation is recommended when repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular time is not appropriate.

## 3. Restoration

Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period.

Restoration is recommended when a property's design, architectural, or historical significance during a particular period of time outweighs the potential loss of extant materials, features, spaces, and finishes that characterize other

historical periods; when there is substantial physical and documentary evidence for the work; and when contemporary alterations and additions are not planned.

The limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.

## 4. Reconstruction

Reconstruction is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

Reconstruction is recommended when a contemporary depiction is required to understand and interpret a

property's historic value (including the re-creation of missing components in a historic district or site); when no other property with the same associative value has survived; and when sufficient historical documentation exists to ensure an accurate reproduction.

(The definitions and application recommendations are excerpted from The Secretary of the Interior's Standards for the Treatment of Historic Properties, 1995 edition.)

In broad terms, almost all projects anticipated to occur within the Historic District will be rehabilitation projects. By their very nature and purpose, college and university buildings are subject to constant changes. Up until recently, these changes were generally made without a thought to the historic character of the buildings involved. Therefore, preservation is not likely to be a chosen treatment, although there will certainly be individual features and components of UMaine historic district buildings that will need to be preserved. Rehabilitation is the most flexible

treatment, defined to allow additions and adaptive re-use, two project approaches that are essential to the continued growth and evolution of a university campus.

Likewise, there are certain to be elements or features that have been altered or lost that University planners and project designers will wish to restore as part of a rehabilitation project. The chapel space in Alumni Hall is an example of a restoration approach to a major space within a building that is being

rehabilitated (expanded and adapted to a new use). Similarly, we can easily envision the reconstruction of the dome and interior rotunda space and the restoration of the main entrance as part of adapting Carnegie Hall for a new use through the implementation of a rehabilitation project.

To clarify the application of the design guidelines to the National Register buildings of the University of Maine, we have included a general statement on recommended treatment(s) for each structure at the end of each building description.

The design of infill new construction or free-standing new buildings within the district will be subject to Guidelines for New Construction and Guidelines for Siting New Buildings contained in the Campus Master Plan.

## Sustainability

Over the past decade, the sustainable design movement has grown to the point that "green design," particularly with regard to educated and sophisticated clients such as colleges and universities, is now taken for granted. The historic preservation community believes that sustainability and preservation are complementary, that new technologies integrated with original traditional design features can lead to innovations in green building design while assuring that social and cultural values are recognized and enhanced.

Applying green design principles to the rehabilitation and adaptive re-use of historic structures presents the opportunity to weave past and future together, and to create great and vibrant places that connect and respond to the social and cultural contexts of the communities that use them. Basic tenets of historic preservation are rooted in history, culture, environmental stewardship, conservation of open space, and fostering a sense of place for every community. The foundational goal of sustainable design is to transform the way buildings and communities are designed, constructed and operated to create an environmentally and socially responsible, healthy and prosperous quality of life. The goals of historic preservation and sustainability are in harmony.

Many buildings dating from before 1920 have been proven to be more efficient than those built in the subsequent 60 year period. They generally depended on design and site orientation that made the best use of natural means of heating, cooling, and ventilation. These are in line with current sustainability practices. A fundamental understanding of the way a building was intended to operate, based on the original designer's and builder's knowledge of the low-energy-use HVAC, lighting and water systems of the time, will serve as a sound foundation for adapting a historic building to a new or continuing use with an updated and upgraded plan, using today's sustainable technology.

Re-use of historic buildings minimizes the need for placing demolition materials and construction waste in landfills. Continuing to use these buildings allows the University to

The University of Maine Historic Preservation Plan (HPP) contains recommendations regarding the application of the Historic District Design Guidelines. The Campus Planning Committee, or its designated subcommittee, should be the sole determiner of whether or not a proposed design meets the applicable guidelines and standards. The CPC will need to develop a process for accepting or rejecting a proposal, or accepting with conditions.

While the Secretary's Standards will be applied to projects affecting any of the ten buildings that comprise the core historic campus, the following Historic District Design Guidelines are provided to reflect the individual character and attributes of each building. Therefore these Design Guidelines may be viewed as supplemental to, but no less important than, the Secretary's Standards in defining the preservation, rehabilitation, or restoration of any of the subject buildings.

take advantage of the durable, high-quality materials used in their construction that are no longer affordable, if they are available at all. The same is true of the methods used to assemble them into the finished building. Keeping existing buildings on line also takes advantage of their sites which, as is the case with the Tier One buildings, are already served by the transportation and infrastructure systems of the core campus, eliminating the need to extend these expensive networks to newly-developed areas. Incorporating historic buildings into the continuing development and evolution of the UMaine campus is a green building strategy, in keeping with the concept of campus development limits put forth in the 2008-2009 Campus Master Plan currently in use.

Historic buildings are typically durable and adaptable. If a building is durable, it can be expected to have a long life, and thus may be adapted to several new uses over its existence. The Tier One buildings of the University of Maine have seen many changes of use and are excellent examples of how century-old structures can be reconfigured over and over again without losing their historic character or usefulness.

Making the best use of existing buildings reduces the need for new construction and maintenance of additional physical plant. Even if rehabilitation is more expensive than new construction in a specific situation, the life-cycle (long-term ownership and operating) costs of a rehabilitated existing building will often be less than those of a new structure. With embodied energy, adaptable infrastructure, and appropriate siting, among other attributes, preserved and re-used historic buildings often achieve significant energy savings while contributing to the social and cultural richness of the communities in which they are located.

The University of Maine is at the forefront of sustainability. It employs a full-time Sustainability Coordinator, and the Facilities Management and Auxiliary Services departments have a variety of recycling and energy efficiency initiatives in place. The University is a charter signatory of the American College & University Presidents' Climate Commitment (ACUPCC), which calls for each participating institution to