Treatments Resource Guide: Systems, Codes, and Energy Efficiency

Installation of systems (mechanical, electrical, plumbing, HVAC, and etc.) that cause damage to the historic building material or significantly alter the historic appearance may result in the inability for the project to meet the Standards.

Standard 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.

Guidance Resources:

Preservation Briefs:

- Preservation Brief #3: Improving Energy Efficiency in Historic Buildings
- Preservation Brief #24: Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches
- Preservation Brief #32: Making Historic Properties Accessible
- Preservation Brief #41: The Seismic Rehabilitation of Historic Buildings
- Preservation Brief #44: The Use of Awnings on Historic Buildings: Repair, Replacement, and New Design
- Preservation Brief #45: Preserving Historic Wood Porches
- **Interpreting the Standards Bulletins:**
- Interpreting the Standards Bulletin #52: Incorporating Solar Panels in a Rehabilitation Project
- Interpreting the Standards Bulletin #54: Installing Green Roofs on Historic Buildings

Additional Guidance:

- Codes and Regulatory Requirements for Rehabilitating Historic Buildings
- Energy Efficiency, Sustainability, and Green Building Practices in Historic Buildings

<u>Historically-Finished Secondary Spaces—Avoiding Problematic Treatments at Project Completion—New Mechanical, Electrical,</u> and Plumbing (MEP) Systems in Secondary Spaces that were Historically Finished

<u>The Secretary of the Interior's Standards for Rehabilitation and Illustrated Guidelines on Sustainability for Rehabilitating Historic</u> <u>Buildings</u>

Weatherization of Historic Buildings: Weatherizing and Improving the Energy Efficiency of Historic Buildings

See also: Treatments Resource Guide: Windows





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Treatment Tips for Systems Installation

Systems in Finished Spaces:

Recommended:

- Concealing HVAC ductwork in finished interior spaces, when possible, by installing it in secondary spaces (such as closets, attics, basements, or crawl spaces) or in appropriatelylocated, furred-out soffits
- Lowering ceilings, installing a dropped ceiling, or constructing soffits to conceal ductwork in a finished space when this will not result in extensive loss of damage to historic materials or decorative or other features, and will not change the overall character of the space or the exterior appearance of the building (i.e., lowered ceilings or soffits visible through window glazing)
- Retaining or installing high efficiency, ductless air conditioners when appropriate, which may be a more sensitive approach than installing a new, ducted, central air-conditioning system that may damage historic building material
- Installing new mechanical ductwork sensitively or using a mini-duct system, so that ducts are not visible from the exterior and do not adversely impact the historic character of the interior space

Not Recommended:

- Leaving HVAC ductwork exposed in most finished spaces or installing soffits in a location that will negatively impact the historic character of the interior or exterior of the building
- Installing new mechanical ductwork that is visible from the exterior or adversely impacts the historic character of the interior space
- Leaving exposed ductwork exposed in highly-finished spaces where it would negatively impact the historic character of the space

Systems in Finished Spaces



A small, discreet soffit was developed around the trim of this space to allow for the installation of fire suppression systems that did not impact the historic character of this finished space.

Fire suppression and HVAC systems were concealed above the finished ceiling in this space.



The HVAC system in this space was concealed within the highly finished, coffered ceiling of this space.



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Systems in Unfinished Spaces

Systems in unfinished spaces may remain exposed, as this mirrors the unfinished character and nature of the space.



The systems in this former brewery building remain exposed to match the historic character of this historically unfinished space.



The systems in this former mill building remain exposed to match the historic character of this historically unfinished space.



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