



Strategies for Greening Historic Properties

Project #
09-452

Background:

Rehabilitating an historic building or landscape can be a tricky proposition, and is sometimes complicated by having to incorporate DoD policies on increased energy efficiency through the use of modern sustainability methods and green building techniques, while at the same time maintain a building's historic qualities.

Objective:

The "greening" of historic buildings is fast becoming a significant aspect of cultural resource management. The project was designed to help DoD cultural resource specialists, planners, architects, designers, engineers, and others responsible for the preservation of historic buildings, structures, and landscapes to understand how sustainable, "green" features can be incorporated into historic building renovation projects without compromising the property's significant architectural characteristics. The report presents case studies that exemplify how DoD staff can incorporate green building techniques and sustainability methods into historic building rehabilitation projects.

Summary of Approach:

The project team identified seven case studies located across the United States that used modern sustainability principles to upgrade historic buildings. The concept of sustainability was defined by guiding principles set forth in the *Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding (MOU)* and included:

- Employ Integrated Design Principles
- Optimize Energy Performance
- Protect and Conserve Water
- Enhance Indoor Environmental Quality
- Reduce Environmental Impact of Materials

In each case study, the team analyzed the impacts of using green construction and design principles on building preservation. The technical report is organized by the MOU guiding principles, with examples of how those principles were met in each project. So, for example, if a DoD staff member wanted to know how daylighting can be enhanced in a historic building, they can go to the Indoor Environmental Quality section and learn how this was completed for eight different projects – the design approach and its effect on the historic property's significant characteristics.

Benefit:

The report can be used as a resource by CRMs and facilities staff to aid in design decisions and understanding how those decisions can impact historic properties.

Accomplishments:

The report uses case studies to illustrate how sustainability and green building techniques have been used in historic preservation rehabilitation projects. Although not all of the case studies were DoD buildings, they were chosen for their diversity of geographical location and approach, and for the amount of available information on the individual project. Each study briefly describes how sustainability principles were applied in the rehabilitation project and whether or not these practices affected the historic architectural characteristics of the buildings. It is a tool that can aid in understanding of how sustainability and historic preservation can work hand-in-hand to promote energy conservation while at the same time preserving our historic built environment.



Contact Information:

Karen Van Citters, CSI, CDT
Van Citters: Historic Preservation, LLC
220 Adams Street SE, Suite A
Albuquerque, NM 87108
Ph: 505-268-1324
Fax: 505-268-1325
Karen@vcpreservation.com