

**WEATHERIZING YOUR HISTORIC HOME
NEW HAMPSHIRE
DIVISION OF HISTORICAL RESOURCES
NADINE PETERSON**

Hello, my name is Nadine Peterson. I'm here to talk to you about weatherizing your historic home.

Already A Step Ahead

Older buildings were built to last, and many historic buildings are energy efficient. The U.S. Energy Information Agency has found that buildings constructed before 1920 are more energy-efficient than those built during the rest of the 20th century.

In 1999, the General Services Administration examined its building inventory and found that utility costs for historic buildings were 27% less than for more modern ones. Built when heating and cooling were more difficult, many older homes incorporate passive energy-saving features, such as south-facing facades for solar gain, deep eaves for summer shade, and cross-ventilating halls and windows. The energy performance in these older homes can be increased even further with basic, modern weatherization techniques.

Maintaining Value

New Hampshire's historic homes and neighborhoods are familiar and comforting sights for residents and visitors. They are irreplaceable resources, and thoughtful care is needed to preserve them.

The craftsmanship and materials such as heavy timbers, granite, handmade bricks and old-growth wood that is used to construct historic homes are unavailable today, or only available at great cost. When lost to a landfill, they are gone forever. Appropriate weatherization measures can both provide energy savings and protect a property's historical and economic values.

Where to Begin?

Where is the most energy lost in your home? According to a graph from the U.S. Department of Energy, the amount of energy lost by plumbing penetrations is at 13%, windows is at 10%, doors are at 11%, fans and vents are at 4%, fireplaces are at 14%, floors, walls and ceilings are at 31%, electric outlets are at 2% and ducts are at 15%.

Energy Saving Tips

The National Trust for Historic Preservation is a private non-profit organization dedicated to saving historic places and revitalizing America's communities. The trust is a leader in promoting the links between sustainability and historic preservation. To learn ten steps to greening your home while maintaining its historic value visit www.preservationnation.org/issue/sustainability/green-home-tips

The National Trust

Wood windows are a common misrepresentation to loss of energy. Research shows that most traditionally designed wood-frame buildings lose more heat through the roof and un-insulated walls than through the windows. Studies also show that historic wood windows, properly maintained and fitted with a storm window, are just as energy efficient as new windows. A repaired wood window can easily last more than 100 years whereas the life of a new window is far shorter. Manufacturing, transporting and installing replacement windows consumes large amounts of energy. Many historic wood windows can be repaired, especially those dating back to the 1940's and before. These windows were constructed with individual parts, each of which can be repaired or replaced. The wood is denser and of a higher quality and it is generally more rot and warp resistant.

More Online Resources

The National Trust continually expands its weatherization information at www.preservationnation.org/sustainability

National Trust Window Tip Sheet
<http://www.preservationnation.org/issues/sustainability/additional-resources/July2008WindowsTipSheet.pdf>.

The latest issue of Preservation magazine is devoted to saving energy and going green. It is available on newsstands or online at www.preservationnation.org/magazine

Preservation Brief 3: Conserving Energy in Historic Buildings
www.nps.gov/hps/tps/briefs/brief03

New Hampshire Preservation Alliance

The New Hampshire Preservation Alliance is the state's non-profit preservation organization. Check there website for more guidance on historical buildings, saving energy and experienced contractors for weatherization projects: www.nhpreservation.org
What do historic preservation; economic stimulus and "green" have in common? To find out more go to www.nhpreservation.org

The Role of Recovery Funding

The American Recovery and Reinvestment Act of 2009, provides millions of dollars for income-eligible, New Hampshire owners to weatherize their homes. The NH Office of Energy & Planning is administering this program: (603) 271-2155 or www.nh.gov/oep

National Preservation Act & Section 106

The National Preservation Act & Section 106 provides that all federally funded, licensed, or permitted projects are subject to review under Section 106 of the National Historic Preservation Act of 1966. The American Recovery & Reinvestment Act of 2009 (ARRA) provides federal funding for weatherization projects.

What is Section 106 Review?

A section 106 review is a consultation process that identifies important historic properties so that adverse impacts can be avoided, minimized, or mitigated. In New Hampshire, the NH Division of Historical Resources (DHR) works with applicants and agencies to complete Section 106 reviews. All ARRA projects and programs must comply with Section 106.

There are four basic steps to Section 106:

1. Determine whether historical or archaeological resources are located within the project area. If needed, qualified consultants complete surveys for Section 106 projects.
2. The DHR and the federal agency determine whether the project will have an affect on identified resources
3. DHR and the federal agency determine whether the effect is adverse. If so, they work with the applicant to see whether the project can be changed to avoid or minimize adverse effects.
4. If adverse effects cannot be avoided or minimized, the federal agency and DHR work with the applicant to create a mitigation package to address impacts.

Working with the DHR

To initiate reviews, the Community Action Programs should complete and submit requests for project review forms, which are available at www.nh.gov/nhdhr/review. Early and accurate submissions equal quick and efficient reviews. Projects that protect historical resources, or create little or no impact, move very quickly through Section 106 review process.

Weatherization measures that protect a historic home's value, rather than present adverse effects during Section 106 reviews include sealing cracks and adding insulation, these are the most efficient ways to weatherize your home. Add weather stripping to all doors and windows and install foam insulation gaskets under cover plates on all outlets and switches. Seal the basement by insulating bulkhead doors leading to the basement, sealing all cracks in the foundation wall, inside and out. Add insulation to attic floor and floors above unheated crawlspaces and basements. Vapor barriers should always face the heated space.

There are more measures that can be done and these include sealing and insulating all attic door hatches. Add exterior storm windows to single glazed windows. Make sure they are properly sealed and caulked and have weep holes at the sill to allow moisture to escape. Add compatible storm doors. Wrap all hot water pipes and air ducts. Turn off water to exterior faucets, drain and cover taps with an insulated cover. When not in use, shut fireplace flues tightly and fill the throat with insulation if the fireplace is not often used.

Also keep in mind it's the agencies that should respond quickly to requests for additional information. For more complicated projects, agencies may need to hire professional cultural resource consultants. Cultural resource mitigation may be needed if weatherization goals cannot be achieved without adversely affecting historical resources.

For More Information on Project Review Under the American Recovery & Reinvestment Act of 2009

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