

Historic Wood Windows

Why They Matter, How to Save Them

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PAM's 10 Most Endangered Historic Places 2009



STATEWIDE

HISTORIC WOOD WINDOWS

Existing tax credits, as well as new federal provisions, support weatherization and energy efficiency improvements to our homes. These programs tout environmental responsibility and sustainability but threaten historic wood windows, which in many cases will be replaced with modern windows. A more sustainable solution would be to repair existing windows whenever possible.

Original wood-frame windows, when provided with basic maintenance, proper repair, and fitted with storm windows, can be just as energy efficient as new windows. Windows over 60 years old were likely constructed of high-quality, dense and durable old-growth wood. Individual parts are easy to replace and are often available at the local hardware store. The cost to fix existing windows is often less than replacement and can be a do-it-yourself project, or homeowners can employ local craftsmen for more complicated repairs. New vinyl or metal windows are more energy-intensive to manufacture, can be difficult to maintain or repair, and have a definite life expectancy. Plus, window replacement results in more building waste in our landfills.

Admittedly, not every wood window can be repaired and replacement is sometimes appropriate. But in most cases, original wood windows contribute to the character of our historic homes and repairing them is the soundest way to preserve our communities and sustain our environment. For more information and window repair tips, visit the Preservation Alliance of Minnesota's webpage: www.mnpreservation.org

Why “endangered”?

Renewed Focus on Weatherization and Energy Efficiency

From the National Trust for Historic Preservation website, www.preservationnation.org

Not since the days of the oil crisis in the 1970s have Americans been so focused on energy consumption, especially weatherization. Just as the cost of heating and cooling has risen, so has the awareness of just how much energy seeps out of an average home every day. Central to this discussion is the role of older and historic buildings – and making them more energy efficient without jeopardizing their unique character.

Stimulus Dollars at Work

Minnesota's Weatherization Assistance Program, funded by an extra \$131.9 million (over two years) thanks to the American Recovery and Reinvestment Act of 2009.

Assists low-income households by providing energy audits, insulation and mechanical upgrades, and other improvements.

Funding covers window replacement, but *not* rehabilitation or repair.

New Tax Credits to Encourage Investment

On February 17, President Obama signed into law the American Recovery and Reinvestment Tax Act of 2009. This bill extends and modifies the tax credits for windows, doors, and skylights established in the Energy Policy Act of 2005.

Qualifying products purchased between January 1, 2009 and December 31, 2010 are eligible for a tax credit equal to 30 percent of the product cost. Installation is not included. The maximum amount of homeowner credit for all improvements combined is \$1,500 during 2009 and 2010.

www.energystar.gov

Avid Promotion Amidst an Economic Crisis

The construction industry has been hurting.

Billboards galore!

Door-to-door sales

Google “Andersen Windows” and get “Andersen Windows – Federal Tax Credit – Energy Efficient”

Limited Time Special Financing
No Money Down
No Interest For 12 Months*
Call Today
1.866.945.0567
And Up To
\$1500**
Tax Credit

Why important?

Historic Windows Add Character



Craftsman cottage, Excelsior



Queen Anne house,
Eveleth

Window styles and details are key to a house or building's architectural style, age, and significance.

Windows are character-defining features of any home. Everything from their size, placement, proportional relationship to the wall space, style, and materials contribute to how a building looks and feels.



This post-World War II, Minimal Traditional style house in Edina has its original horizontal-paned windows—one of the most important clues to its period of construction.

Historic Windows Fit The Building

Historic windows were made and custom installed to fit their specific window openings. Each opening is probably a little bit different, and older windows may have shifted and changed with their openings as the building aged. After many decades, a window may no longer be exactly square, but it still fits the opening.



Mitchell-Tappan House B&B, Hibbing

When new stock replacement windows are installed in historic openings, there is very little chance that they will fit well. The resulting gaps around the windows will drafty – which is probably the perceived reason for replacement in the first



Eveleth City Hall

place. When the overall size of the window opening is reduced to compensate for the smaller size of the stock window, the result is a smaller window, less light, distorted proportions, and trim that doesn't match the opening.

Historic Windows are Sustainable

Wood windows made prior to the 1940s are likely to be made from old growth wood, which is denser and more durable, rot resistant, and dimensionally stable than modern wood. New wood windows will not last as long as the historic ones, and will again have to be replaced.



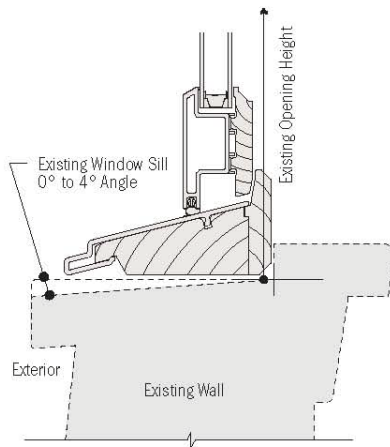
Replacement Windows

They're called *replacement windows* for a reason.

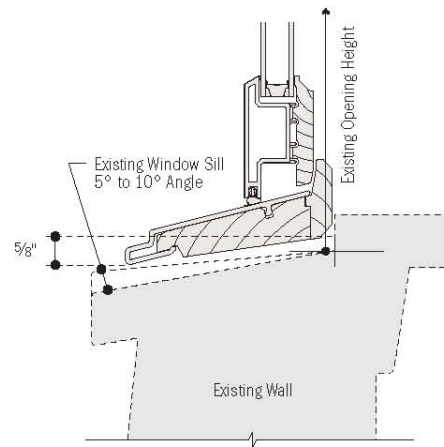
Complex, engineered components

Sill Angle Options Scale 3" = 1'-0" (1:4)

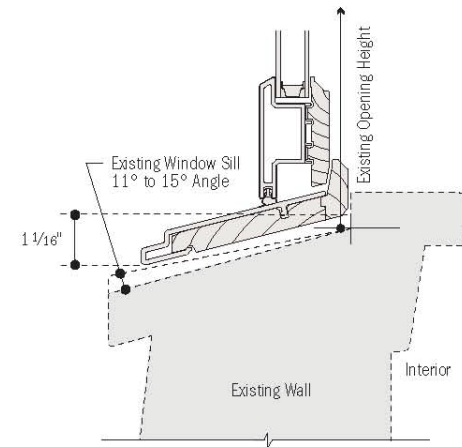
Select the Woodwright® insert window sill angle that most closely matches your existing sill angle. Units with smaller sill angle will have larger maximum.



0° Sill Detail



8° Sill Detail



14° Sill Detail

Updated 01/09

Manufactured from industrial materials such as composite wood, extruded aluminum, and extruded vinyl



What if a replacement window needs fixing?

Replacement windows are engineered, factory-manufactured units. If one component fails, they are virtually impossible for a homeowner to repair. Instead, the entire unit must be removed and replaced, often at a significant cost.

Renewal by Andersen, the “industry’s best warranty” – 20 year limited warranty for glass, 10 year limited warranty for other components, 2 year limited warranty for installation.

The Alternatives to Window Replacement

Conduct an Energy Audit

Windows might be perceived as drafty and leaky, but they are rarely the source of significant heat loss.

Most heat loss in a building goes through the roof and other gaps in the walls and foundation. Proper attic insulation is like putting on a hat in winter.

The empty spaces behind register covers and electrical outlets are surprising culprits in energy loss and air infiltration.

The Alternatives

Add Interior or Exterior Storm Windows

Storm Windows Qualify for the \$1500 Tax Credit

From the U.S. Department of Energy website, www.energystar.gov

There is a tax credit for storm windows and doors in 2009 and 2010 that meet this criteria:

Storm Window. A storm window that, in combination with the exterior window over which it is installed--

- (a) Has a U factor and SHGC of 0.30 or below; and
- (b) Meets the prescriptive criteria for such component established by the IECC.

Storm Door. A storm door that, in combination with the exterior door over which it is installed--

- (a) Has a U factor and SHGC of 0.30 or below; and
- (b) Meets the prescriptive criteria for such component established by the IECC.

Repair or Replace Damaged Components

Inoperable windows can be fixed by disassembly and repair.

Individual components that are damaged beyond repair can be replaced in-kind.

Resources—time, effort, and money—go only towards the windows that need it—not towards wholesale replacement of every window in the house.

If the task is beyond a do-it-yourselfer, it provides labor-intensive work for craftspeople and spurs on the local economy.

Caulk and Weatherstrip

Caulking around the frame—on both the exterior and interior—will reduce air infiltration.

Install weather stripping between the sash and frame to limit drafts. Make sure the meeting rails fit and that the window can be locked.

The glass itself is not a significant factor in heat loss—especially on multi-paned windows.

For More Information . . .

www.mnpreservation.org/programs/ten-most-endangered

Scroll to the bottom to read about Historic Wood Windows on the 10 Most Endangered list, and follow links to a number of articles and websites.

www.preservationnation.org/issues/weatherization/windows/

The National Trust for Historic Preservation has an extensive website devoted to sustainability, weatherization, and window rehabilitation.

Go forth and caulk!

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