Fix up Those Older Windows to Enhance the Beauty of Your Home... And Save Money

By Mark Pierce, Extension Associate

Those beautiful single glazed wood windows in your older home are not nearly as inefficient as you have been led to believe by the advertising industry. Nor will window replacement necessarily be in your financial best interest. How do I know this? I investigated how much it would cost to replace the existing single-glazed wood windows (R-1) in my older home with new, highly energy efficient double-glazed, low-E, argon-filled vinyl replacement windows (R-3). Here is what I found out:

- My existing 19 windows lose about 17.4 million BTU's of heat each heating season
- The annual cost of this lost heat is about $130
- New highly efficient ENERGY STAR* rated vinyl replacement windows would lose about 2 million BTU's of heat annually. The annual cost of this lost heat would be about $16.
- If I install the vinyl replacement windows the total annual savings on my heating bill would be about $114.
- To realize this annual $114 savings I would need to invest $8000 in vinyl replacement windows.

Spending $8,000 to save a little over $100 per year is not a good method for saving lots of money on heating bills. And vinyl windows will subtract from the beauty of my older home, rather than add to it as my older windows do. In addition, there are other less expensive options available to me for reducing loss of heat through my older windows.

Simple, quick steps for tightening up an older window:

- Replace cracked/broken window panes. Even cracked pieces of glass will let in lots of cold air.
- Replace missing/deteriorated glazing. This prevents air from entering from around glass panes and is also very important for long-term maintenance. Always paint the glazing after it has cured, and remember to overlap a thin line of paint onto the glass. This will help to keep moisture from running down the outside of the glass and getting under the glazing where it can eventually rot the muntins.
- Make certain that a sash lock is present and in good working order [1] . A proper fitting sash lock has significant impact on the air-tightness of a double hung window. The lock should pull the upper and lower window sash tightly together, and at the same time push the bottom sash down and the top sash up. You may need to spend some time cleaning the back meeting rails. Often dried paint drips will prevent the top sash from fully contacting the bottom sash at the meeting rail. Make certain those surfaces are flat and smooth for a good seal.

- Wide window sash may require 2 window locks to get a tight seal across the full width of the meeting rails.
- Adding a thin piece of foam weather stripping to the sill and head jamb to improve the seal when the windows are closed and locked will further increase air tightness, which increases energy efficiency.
- Putting a thin bead of caulk where the interior casing touches the interior walls may also increase air tightness.
- There are special gaskets made that are designed to fit over counterweight pully's. They are made in such a way so that they allow the pully to turn and allow the sash cord move, but still seal out the cold air that may be infiltrating from a poorly sealed counterweight cavity.
- Replace excessively worn parting bead (the narrow vertical piece of wood that separates the upper sash from the lower sash) to increase air tightness between window sash and window jam. The parting bead must be removed if you need to repair counterweights for the upper sash. Removing the parting bead will also allow you to take the upper sash out. This may be helpful if you need to replace much of the glazing in that sash.

*ENERGY STAR is a joint program of the United States EPA and The U.S. Department of Energy. The ENERGY STAR label helps consumers identify the most energy efficient products on the market. Only windows with an R-value of 2.8 or higher can carry the ENERGY STAR label.

Resources For Improving Home Energy Efficiency and Weatherizing Older Windows:

Book:

Residential Energy Cost Savings and Comfort for Existing Buildings (2000) by John Krigger. Published by Saturn Resource Management, 324 Fuller Ave, N -13, Helena , Montana 59601 , http://www.residential-energy.com/

Book:

Insulate and Weatherize (2002) by Bruce Harley. Published by the Taunton press, 63 South Main Street, PO Box 5506 , Newtown , CT 06470

Book:

Working Windows: A Guide to the Repair and Restoration of Wood Windows -- by Terry Meany; Paperback .

This book thoroughly covers the task of repairing/refurbishing older double-hung wood windows that use metal counterweights to assist in the opening and closing of the window.

If you ever wanted to know how to replace or repair the sash cords that run into pulleys in the window frame and then disappear into the wall, this is the book for you.

Cornell University Housing Fact Sheets: http://www.cce.cornell.edu/housing/
(Follow link to obtain the group of Fact Sheets listed below.)

Home Energy Conservation Fact Sheets:

Energy Saving Window Treatments e
Installing an Energy Efficient Roller Shade
Insulation Check-Up
Modifying Draperies to Conserve Energy
Replace Your Older Refrigerator to Reduce Energy Costs
Sealing Air Leaks in Your Home
Weather-Stripping Windows and Doors

Website

Repair of Historic Wooden Windows National Park Service website:
http://www.cr.nps.gov/hps/tps/briefs/brief09.htm
[1] If the screw holes for the sash lock are worn and oversized you can tighten then by taking a small piece of wood match stick or tooth pick and inserting them in the oversized hole along with a drop of wood glue. Wait 24 hours and the screws should fit tightly when re-inserted.