

# Period Homes

Clem Labine's

THE PROFESSIONAL'S RESOURCE FOR RESIDENTIAL ARCHITECTURE

## FEATURE: STORM & SPECIALTY WINDOWS

ALLIED WINDOW, INC.  
  
Custom "Invisible" Storm Windows®  
(800) 445-5411  
(513) 559-1883 (Fax)  
[www.alliedwindow.com](http://www.alliedwindow.com)  
...where custom work is the standard®

## Green can be Gold

The case against recycling windows. *By David Martin*

This is the message that the preservation community should be sending to period home owners across our nation: The energy crunch has resulted in the loss of valuable windows.

In the early 1900s, when the storm window industry was born, the prime purpose of a wood storm window was to keep people warm in the winter. There was a savings on energy costs in the heating season, but energy was cheap, and the major focus was comfort.

How things have changed. After the Arab oil crisis in the mid 1970s, energy costs skyrocketed, and since almost every home has air conditioning, the energy cost spike is now year-round, with no indication that circumstances will change.

Aluminum storm windows began replacing wood storm windows in the 1930s, and the replacement window industry began its rapid growth in the late 1960s. That growth led to the widespread assumption that the days of the storm window were numbered, and many window companies stopped manufacturing them.

But storm windows are making a strong comeback. There are four major reasons for this resurgence.

First, the major benefits of storm windows still apply, and are now even more valuable:

- Save half of the energy being lost through windows for both heating and air conditioning. Storm windows provide the same energy savings as replacement windows, at about a third of the cost of new windows. For a non-operating window with a storm window that has low-E glass, the U-Value can be as low as 0.40. With a payback of three to six years, the homeowner is paying for the storm windows, whether they have them or not.
- Adding a storm window to a single-glazed opening will reduce outside noise by about 50 percent. Using laminated glass can reduce that noise by up to 80 percent.
- The result is more uniform heating and cooling throughout the home, and the elimination of drafts and cold spots, such as a couch in front of a window.
- Ice or moisture on the inside of windows is dramatically reduced, if not eliminated altogether. Contrary to popular belief, the addition of a quality interior storm window will not result in moisture problems. If an exterior storm window is added, it is not unusual to have some condensation on the inside of the storm window. This is the result of the forced-air furnace pushing moist air into the home through the primary windows.

Above right: These exterior storm windows with interchangeable screens on a residence in Providence, RI., were designed to meet the criteria of the National Park Service. *All photos: courtesy of Allied Window*

Right: Special exterior fixed panels in a custom color and glazed with laminated glass for the Governor's Mansion in Raleigh, NC, provide protection, as well as sound and UV reduction.





*Left:* This is one of three special windows in the Rare Books Room at Dumbarton Oaks in Washington, DC. These unique openings have interior storm windows with tempered bent glass in a custom color.

*Center:* This outside-removable gothic storm window with “invisible” clips is a feature window at a residence in Providence, RI.

*Above right:* This exterior arch-top storm window with an interchangeable screen graces the historic home of the Horty family in Wilmington, DE.

*Below Right:* The interior operating magnetic storm windows at the Governor’s Mansion in Nashville, TN, are in a custom color, glazed with laminated glass for UV reduction.

Second, the use of replacement windows can erode the historic or architectural value of a home. Aluminum, vinyl or inexpensive wood windows are subject to failed insulated glass, or broken balances, and will have to be replaced again in about 15-20 years. These problems are multiplied for larger windows in Victorian or upscale homes.

Third, higher quality and higher-tech storm windows are now available for both exterior and interior applications:

- Low-E glass is a must these days, as it reflects heat back in during the winter and reflects heat back out in the summer.
- Window film on storm windows can provide 99 percent UV reduction, reduced heat gain with tinting and added safety with special security films.
- Laminated glass results in 99 percent UV reduction, 80 percent sound reduction and added security.
- Custom colors are available to match any desired color scheme.
- Custom shapes can match the primary windows and avoid creating new lines in the glass area.
- Larger storm windows that match large existing windows are available, and reduce the necessity for multiple storm-window units.
- Bowed storm windows for turret windows can be made using true bent glass, and can be provided with interchangeable bowed screens.

Fourth, the greenest window is the one that is already there. The use of storm windows provides many environmental benefits:

- The energy saved results in reduced energy consumption, and a reduction in the pollutants that are released while generating that energy.
- Eliminates old windows going to landfills.
- Prolongs the life of existing windows, and reduces damage from interior condensation or exterior elements.

So whether someone has a comfortable bungalow, a stunning Victorian, a stately mansion or an historic museum house, the venerable storm window offers many solutions.

The National Trust for Historic Preservation has a special project to “Save the Windows!” in which they encourage owners to repair and restore the existing wood and steel windows in historic structures, and to consider quality storm windows to deal with the realities of energy costs.

An original window that is replaced is gone forever. Keeping historic windows can save money, increase resale value and benefit the environment. ■

*David Martin is the president of Cincinnati, OH-based Allied Window.*



## WINDOW ALTERNATIVES

### *Storm Windows*

#### Advantages

- Lower cost • Can meet specific needs of the building • Availability and flexibility
- Simple installation • Color availability • Retention of the primary windows and glass

#### Disadvantages

- Less convenient • May affect aesthetics

### *Interior Storm Windows*

#### Advantages

- Lower cost than exterior units • Better option for UV protection
- Better option for low-E glass • Easier to clean • More flexibility for large openings

#### Disadvantages

- Ventilation is more difficult • Installation space may be limited
- Loss of window-stool space • Screens can be a problem

### *Exterior Storm Windows*

#### Advantages

- Prime window protection • Security • Installation may be simpler
- Availability of screens

#### Disadvantages

- Some loss of window detail • Reflection of glass • Higher cost than interior units
- Cleaning is more difficult

### *Storm Window Types*

#### Interior

- Magnetic panels • Lift-out designs • Sliding or rolling panels • Fixed/removable units
- Vertically operating panels

#### Exterior

- Fixed/removable units • Vertically operating panels • Traditional wood storm panels