



Metro Historic Zoning Commission

# WINDOWS

## DESIGN REVIEW SUPPLEMENT

### **Why Keep Old Windows?**

Repairing and maintain existing windows maintains value and historic character, is environmentally responsible and can be much less expensive.

Historic windows can be endlessly repaired whereas replacement windows have relatively short warranties and once the window fails, the entire sash must be replaced which creates an endless cycle of purchasing, replacing and sending materials to the landfill. Manufactures often offer lifetime warranties but what they don't make clear is that 30% of the time, a replacement window will be replaced within 10 years. Many old windows are made of old growth wood that is denser and therefore longer lasting than wood available today.

### **What About Energy Efficiency?**

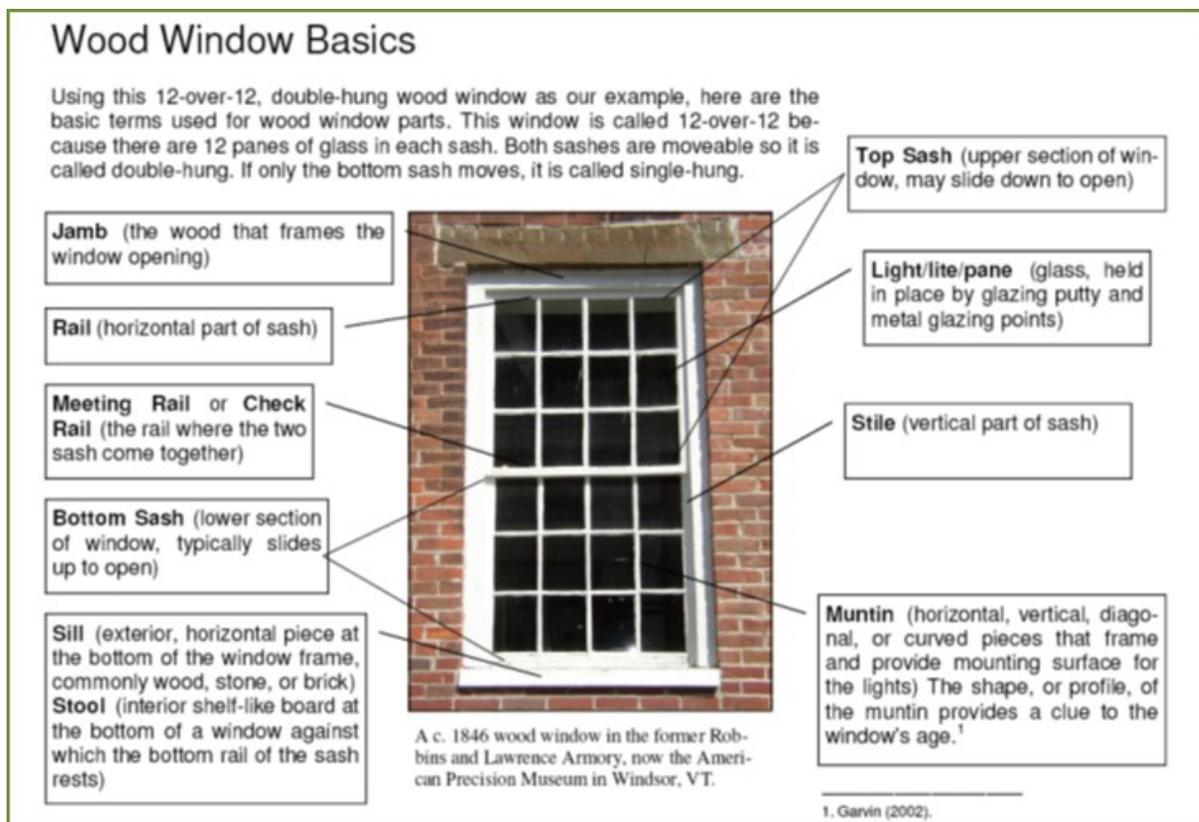
Multiple studies have shown that properly maintained windows with the addition of storm windows, particularly interior storm windows, can be as efficient as replacement windows, and also continue to maintain the integrity of a building's historic fenestration. While the exact figure will vary depending on the type of window installed and whether or not a storm window is used, studies have found that it could take 100 years or more for a replacement window to pay for itself in energy savings. In addition, the majority of energy loss is through

the roof so it may be more cost efficient to replace or increase attic insulation rather than replacing windows.

Storm windows should use blind-stops and have a meeting rail that lines up with the existing meeting rail.

### What Should I Look for When Replacement is Necessary and for New Construction?

- Consider using a “sash pack” that retains both the original window casings, frame and sill, rather than full, costly, replacement of these elements.
- Use simulated divided lights (SDL) with spacer bar or no muntin grills. Bars should range between 5/8” to 1 1/4”, depending on the style of the window.
- Use a mullion, to divide paired or triple windows. Mullion should be 4” to 6” in width as they are creating the appearance of an historic weight pocket.
- Windows used in walls with lap-siding or shingle siding may not use brick mould casings.
- Windows used in walls with brick or stone cladding, should use brick mould casings.
- When a casement-style window is required for a dormer to meet emergency egress requirements, but other similar dormers on the structure have double-hung windows, a new casement that incorporates an applied grill pattern mimicking double-hung sashes should be selected as these are readily available from multiple common manufacturers, are more compatible with the building’s existing historic millwork, and fully meet applicable code requirements for secondary exit of a residential sleeping space. DH windows with 2 tilt sashes also meet emergency egress requirements.



## What Windows Have Already Been Reviewed and Which Districts Are They Allowed To Be Used In?

This information is for planning purposes only and is not in any way exclusive. Replacement windows are not reviewed in Neighborhood Conservation Zoning Overlay Districts.

As new manufacturers and products are constantly emerging, additional design options, not included here, may also be submitted for a detailed review. This document does not represent an endorsement of any individual product or company.

Company / Model	All-wood option	Clad Option	Other Option	Pref. Ext. Muntin	HPZO Replacement Windows for Hist. Structures	HPZO or NCZO Windows Used in New Construction
American Craftsman			Vinyl		X	X
American Home Design			Vinyl		X	X
Andersen / Series 100			Vinyl		X	X
Andersen / Woodwright			Composite	7/8", 1 1/4"	X	✓
A&S			Steel		✓ -appropriate for commercial designs and Tudor or Mid-Century modern	✓ -appropriate for commercial designs and Tudor or Mid-Century modern
Champion			Vinyl		X	X
Central Woodwork / Neverot			Composite	7/8", 1 1/4"	X	✓
Enviroguard Series 100/200/300			Vinyl		X	X
Hopes			Steel		✓ - appropriate for commercial designs and Tudor or Mid-Century modern	✓ -appropriate for commercial designs and Tudor or Mid-Century modern
Hurd / Wood Double Hung	X	Aluminum	Composite	5/8, 1 1/4" putty-style	✓	✓
Jeld-Wen / Custom Series	X	Aluminum	Copper	5/8, 1 1/8" putty-style	✓	✓
Jeld-Wen / V-2500 Series					X	X
Lowen	X	Aluminum		5/8, 1 1/8" putty-style	✓	✓
Marvin / Ultimate	X	Aluminum		5/8, 1 1/8" putty-style	✓	✓
Marvin / Integrity			fiberglass	5/8, 1 1/8" putty-style	X	✓
MGM Industries "Southern Rose" / Series 8017 Vinyl (painted)			Vinyl	3/4"	X	✓
MGM Industries "Sienna" Vinyl					X	X
Monarch / Majestic	X	Aluminum		7/8, 1 1/2"	✓	✓
Pella / Architect Series	X	Aluminum	fiberglass	7/8"	✓	✓
Pella / Impervia			Fiberglass		X	✓
Pella / Proline (450 Series) – Lifestyle		Aluminum		7/8"	X	✓
Ply Gem / Pro Series 350			Vinyl	7/8"	X	✓
Ply Gem / Pro Series 200			Composite	5/8, 1 1/4"	X	✓
Ply Gem / 1500 Vinyl Collection	X	Aluminum			X	X
Quaker	X	Aluminum		7/8"	X	✓
Reliablitt		Vinyl			X	X

<b>Semco / Oakley Companies</b>	X	Aluminum		7/8", 1 1/4" (SLD AND TDL)	X	✓
<b>Sequel by HD/ DH Tilt</b>		Aluminum		7/8"	✓	✓
<b>St. Cloud Window Series 2500</b>			Aluminum		✓ - appropriate for some commercial designs	✓ - appropriate for some commercial designs
<b>Sierra Pacific – Premium and Designer series</b>	X	Aluminum	wood or vinyl	"Putty Profile"	✓ - All wood window appropriate for replacement	✓ - wood, vinyl or alum clad options appropriate
<b>Sierra Pacific-Builders Series</b>					X	X
<b>Sun Windows – Tilt DH</b>		Aluminum			X	✓ - Alum clad options appropriate for new const.
<b>Torrance</b>			Steel		✓ - appropriate for commercial designs and Tudor or Mid-Century modern	✓ - appropriate for commercial designs and Tudor or Mid-Century modern
<b>Traco</b>			Aluminum		✓ - appropriate for some mid-century commercial designs	✓ - appropriate for some mid-century commercial designs
<b>Tucker 2300 Series</b>		PVC	Vinyl	7/8", 1 1/8"	X	✓
<b>Tucker 2100 Series</b>		Wood		7/8", 1 1/8"	✓	✓
<b>Vintage Millwork / Custom</b>	X	Custom	Custom	5/8" true putty	✓	✓
<b>Most Vinyl Windows (generic)</b>			Vinyl		X	X
<b>Weather Shield / WS</b>	X	Fiberglass		5/8, 1 3/8" putty style	✓	✓
<b>Window Craft</b>	X				✓	✓

HPZO = Historic Preservation and Landmark Zoning Overlays

NCZO = Neighborhood Conservation Zoning Overlay and B&B Homestays

\*\*Inappropriate windows are not allowed due to material, design/construction details; such as heat/solvent-welded mitered corners, and vent/weep-holes in the sash frames, snap-in mutton grills, or the material does not allow for appropriate dimensions.