

# Historic Residential Exterior Rehabilitation (HRER) Program Windows Policy



## Introduction:

The City of Scottsdale Historic Preservation Commission (SHPC) developed the Historic Residential Exterior Rehabilitation (HRER) program to assist homeowners with maintaining the special historic character of homes located in city-designated historic districts. Under this program, many homeowners seek funding for repairs or replacements that improve the functionality and energy efficiency of an historic window. Many historic windows were built to high quality standards. Before replacing historic windows please consider changing just the damaged panes and/or repairing damaged muntins or frames with putty or other appropriate compounds. It may be necessary to remove peeling paint to determine the condition of a historic window. Since many historic buildings were painted with lead-based paint, it is very important that any removal of lead-based paint be done by a professional familiar with worker safety, environmental controls, and proper disposal methods. There are also a number of ways to improve the thermal performance of historic windows. Some passive improvement options include interior blinds, exterior awnings, or shade trees. Other options may include installing window films, replacing historic single-pane glass with double- or triple-pane glass, or adding interior storm windows.

Steel frame windows can be made more energy efficient and repairing them is often more economical than wholesale replacement. Before replacing steel windows clean them to determine their condition. If they are structurally sound, then a number of repair options are available. These include realigning bent metal, adjusting the frame with shims, sandblasting away corrosion, filling holes with patching material, replacing any missing parts (screws, handles, fasteners, etc.), and/or reapplying paint with anticorrosive primer. Skilled contractors should be used if it is determined that repairs need to be completed in a workshop. Once repaired, routine maintenance will extend the window's longevity. Although steel frame windows are typically not energy efficient, there are a number of ways that they could be made more so. These include caulking around the frames, weather-stripping, and/or replacing historic single-pane glass with double- or triple-pane glass, or adding interior storm windows.

## Resources:

- National Park Service Preservation Brief No. 13 Steel Windows
- National Park Service Tech Notes No. 19 Windows
- City of Phoenix Historic Preservation Office Steel Casement Window Repairs
- National Park Service Preservation Brief No. 37 Lead-Paint Hazards

If repairs are insufficient and windows need to be replaced, the HRER program can help. In choosing to replace windows, a homeowner can profoundly affect the appearance of a building. With these factors in mind the SHPC carefully considered standards for appearance, durability, and energy efficiency to guide applicants. These criteria represent a higher standard than is required for those applying for a Certificate of No Effect or Certificate of Appropriateness where the City is not funding the work.

In order to be considered for funding, window replacements must meet the "required" criteria in each of the three categories below. To have the best chance of securing HRER funding, the SHPC suggests that applicants meet as many of the "desired" criterion as possible. Additional information regarding an application for HRER funding is available online at:

<http://www.scottsdaleaz.gov/historic-zoning/exterior-rehabilitation>.

## Planning and Development Services

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## Historic Residential Exterior Rehabilitation Program Windows Policy

### Window Repair:

#### Appearance:

##### *Required*

- Tightly and squarely fit the replacement window to the original opening with little or no shimming.
- Maintain the original window proportions, including the depth and profile of the frame and structural elements. The width of the frame should match the original window.
- Operable portions of the windows shall match the original operation, i.e. repair handles, crank mechanisms, and latches for casement windows.
- Match the original window muntin (grid) pattern in placement. The muntin (or grille) should measure approximately an inch or less in width.

#### Durability:

##### *Required*

- Certification by the American Architectural Manufacturers Association (AAMA).
- Guaranteed for parts for at least 10 (ten) years.

##### *Desired:*

- The warranty is transferable to subsequent owners.
- The warranty extends beyond the 10 (ten) year minimum and includes labor.
- The company rehabilitating the windows is a recognized repairer who has been in business at least 10 (ten) years.

#### Energy Efficiency:

##### *Required*

- Meet or exceed the Environmental Protection Agency's (EPA) Energy Star Rating for the South-Central zone of the US.
- Certification by the National Fenestration Rating Council (NFRC).

### Window Replacement:

#### Appearance:

##### *Required*

- Tightly and squarely fit the replacement window to the original opening with little or no shimming.
- Approximate the original window proportions, including the depth and profile of the frame and structural elements as closely as possible. The width of the frame should be proportional to the original window.
- Match the original window muntin (grid) pattern in placement. The muntin (or grille) should measure approximately an inch or less in width.
- For all windows visible from the street, replacement windows must match the existing muntin structure.

##### *Desired*

- For windows not on the primary façade of the home, mold the muntins onto the exterior of the glass, and if possible, select either true or simulated through-the-glass muntins.
- Replace original windows with those of like operation, i.e. replace casement windows with casement windows.

**Durability:***Required*

- Certification by the American Architectural Manufacturers Association (AAMA).
- Guaranteed for parts for at least 10 (ten) years. Vinyl products should be specifically guaranteed against cracking, splitting, corroding, and warping.

*Desired*

- The warranty is transferable to subsequent owners.
- The warranty extends beyond the 10 (ten) year minimum and includes labor.
- The company providing the windows is a recognized manufacturer who has been in business at least 10 (ten) years.

**Energy Efficiency:***Required*

- Meet or exceed the Environmental Protection Agency's (EPA) Energy Star Rating for the South-Central zone of the US.
- Certification by the National Fenestration Rating Council (NFRC).

**Scottsdale HRER Window Policy  
Contractors, Manufacturers, and Venders**

The following contractors, manufacturers, and vendors offer services and products that meet the required and desired HRER Window Policy criteria. The following list is not comprehensive and individuals are free to seek other products that meet the policy or choose any vendor. Please be aware that manufactures often change, add, or remove product lines and it is the responsibility of the homeowner to ensure that the product meets the HRER Window Policy guidelines. Listing on this document does not constitute an endorsement of the individual item or any entity that may repair, sell, or install windows.

**Window Repairs**

<b>Company</b>	<b>Repair Types</b>	<b>Address</b>	<b>Phone</b>	<b>Email/contact</b>
Casement Window Restorations LLC	Steel Casement Window Repair	502 W. Virginia Ave., Phoenix, AZ 85003	602-279-5797	cwrllc@cox.net
G & G Specialty Contractors	Steel Casement Window Repair	4633 S. 36th St., Phoenix, AZ 85040	480-921-4079	Scottg@ggspecialty.com
Tradeworks International	Steel Casement Window Repair	1038 N. Cactus St., Cottonwood, AZ 86326	928-300-8148	tim@tradeworksaz.com
Custom Historic Woodworks	Wood Window Repair	1236 W. 10th Pl., TEMPE, AZ 85281	480-203-7588	phoenixwoodworkers@yahoo.com
Krants Door & Windows	Wood Window Repair	2944 W. Northern Ave., Phoenix, AZ 85051	602-622-1813	krantsdoorandwindow@gmail.com
Stanton Advantage	Wood Window Repair	1122 W. Lynwood St., Phoenix, AZ 85007	602-462-5359	dstanton@basewest.com
Bjerre Glass Design	Leaded/Stained Glass Repair	10422 W Encanto Boulevard, Avondale, AZ 85392-4602	623-979-3766	
Amerizona Products	Window Film	420 N 15th Ave, Phoenix, AZ 85007	602-277-8468	<a href="http://www.amerizonaproducts.com/contact/">www.amerizonaproducts.com/contact/</a>
Intellifilm	Window Film	5948 W. Chandler Blvd., Chandler, AZ 85226		

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### Replacement Window Providers

Manufacturer	Window Type	Model	Vendor	Address	Phone	Email/contact
Hope's Steel & Bronze Windows		steel casement windows	Duane Tuhy (Sales Rep) Southern Architectural Sales	18015 W. Royal Palm Rd., Waddell, AZ 85355	623-535-4070	<a href="http://www.hopeswindows.com/hopes.shtml">www.hopeswindows.com/hopes.shtml</a>
Continental Steel West	Continental Steel	steel casement windows		3101 E 46th St., Tucson, AZ 85713	520-792-0151	
A & S Window Associates	A & S Windows	steel casement windows			718-275-7900	<a href="http://www.aswindowassociates.com/">www.aswindowassociates.com/</a>
Pella Windows	Simulated And True Divided Lite	Architect Series (wood)	Lowes	7950 E. McDowell Rd., Scottsdale, AZ 85257	480-874-8120	<a href="http://www.lowes.com/">www.lowes.com/</a>
		fiberglass and vinyl	Arcadia Window and Door	6425 E. Thomas Rd., Scottsdale, AZ 85251	480-656-4600	<a href="http://www.arcadiawd.com/">http://www.arcadiawd.com/</a>
			Pankow Construction	3620 E. Campbell Ave., Phoenix, AZ 85018	602-595-0799	<a href="http://www.pankowconstruction.com/">www.pankowconstruction.com/</a>
			Pella Window and Door Showroom of Scottsdale	15507 N. Scottsdale Rd., Ste. 120, Scottsdale, AZ, 85254	480-998-8023	<a href="http://www.pella.com/">http://www.pella.com/</a>
Jeld-Wen	Simulated Divided Lite (SDL) and Grille Between Glass (GBG)	Auralast wood and vinyl	Lowes	7950 E. McDowell Rd., Scottsdale, AZ, 85257	480-874-8120	<a href="http://www.lowes.com/">www.lowes.com/</a>
			Home Depot	9170 E. Indian Bend Rd., Scottsdale, AZ 85250	480-951-8211	<a href="http://www.homedepot.com/">www.homedepot.com/</a>
Kolbe Windows & Doors	Performance Divided Lites (PDI) & True Divided Lites	Heritage Series wood windows	Sienna Custom Window & Door	7329 E. Greenway Rd. Ste. A, Scottsdale, AZ 85260	480-991-5252	siennacustom.com
		vinyl	Roadrunner Glass Co.	3033 W. Thomas Rd., Phoenix, AZ 85017	602-269-2543	<a href="http://www.roadrunnerglassco.com/">www.roadrunnerglassco.com/</a>
			Fenestra Window and Door	2622 N. Ogden Road, Mesa, AZ	480-836-1308	<a href="http://www.fenestrawindows.com/">www.fenestrawindows.com/</a>

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Simonton Windows & Doors	Colonial and Diamond Divided Lites	wood, bronze, vinyl	Home Depot	85215 9170 E. Indian Bend Rd., Scottsdale, AZ 85250	480-951-8211	<a href="http://www.homedepot.com/">www.homedepot.com/</a>
Milgard Windows	Essence (wood), Ultra (Fiberglass), Tuscany (vinyl), Montecito (vinyl)	wood, fiberglass, vinyl	Freelite, Inc.	331 W. McDowell Rd., Phoenix, AZ, 85003	602-223-1981	<a href="http://www.freeliteaz.com/">www.freeliteaz.com/</a>
			Illumination Window and Door Company	9332 N. 95th Way Ste. B-102 Scottsdale, AZ 85258	480-588-4718	<a href="http://www.illuminationco.com/">www.illuminationco.com/</a>
Cascade Windows		vinyl	K & J Windows	2031 W. Glendale Ave., Phoenix, AZ 85021	602-942-0954	<a href="http://www.kjwindows.com/">www.kjwindows.com/</a>

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