



North Carolina Department of Cultural Resources  
Division of Archives and History  
State Historic Preservation Office

State Historic Rehabilitation Tax Credit for Non-Income-Producing Historic Structures

## GUIDELINES FOR MEETING REHABILITATION STANDARDS

The North Carolina State Historic Rehabilitation Tax Credit requires that all proposed rehabilitation work be reviewed by the State Historic Preservation Office (HPO) prior to the commencement of work and be certified by the State Historic Preservation Officer as meeting the Secretary of the Interior's Standards for Rehabilitation. These guidelines are intended to assist property owners in applying these standards during the project planning stage by providing general design and technical recommendations.

The Secretary of the Interior's Standards for Rehabilitation, hereafter cited as the Standards, were developed to determine the appropriateness of proposed project work on National Register listed properties and have been widely used since 1976, particularly to determine if a rehabilitation qualifies for federal tax credits.

The intent of the Standards is to promote the long-term preservation of a property's significance through the preservation of historic materials and features. The Standards pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and interior of the buildings. They also encompass related landscape features and the building's site and environment, as well as attached, adjacent, or related new construction. For the North Carolina State Historic Rehabilitation Tax Credit Program, these proven Standards have been adopted for use by the HPO for determining the appropriateness of proposed work.

To understand how the Standards are applied, the property owner should be aware of several principles which will be followed by the HPO in the review of rehabilitation projects.

1. Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values. Restoration of a building to its earliest appearance is not required. Many historic

buildings have been altered in the past and sometimes those alterations gain significance in their own right.

2. The form and detailing of those architectural materials and features that are important in defining the historic character of the building are to be identified, retained, and preserved.
3. Those materials and features identified as character-defining should be protected and maintained. When additional work is necessary, repairing the features is recommended. Repairs may include patching, piecing-in, splicing, consolidating, and limited replacement in kind. If the level of damage or deterioration is so extensive that it precludes repair, then replacement of an entire character-defining feature with new material following physical or historical evidence is appropriate.
4. The long-term effect of the proposed work must be taken into consideration. Some types of work may actually accelerate deterioration and should not be performed.
5. Some exterior and interior alterations to the historic building may be necessary, but it is important that such alterations do not radically change, obscure, or destroy character-defining spaces, materials, features, or finishes. Alterations should be constructed so that if removed, the essential historic character and materials of the building are unaffected.

## SITE WORK

Although most site work is not an eligible cost under the North Carolina State Historic Rehabilitation Tax Credit program, site work will be reviewed as part of the project. Most site work will meet the Standards as long as the work does not overwhelm the existing character of the site, encroach on any historic buildings, introduce incompatible new features to the site, or destroy significant archaeological remains or landscape features.

## The Secretary of the Interior's Standards for Rehabilitation

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match to old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

### Regrading, Landscaping, and Construction of Sidewalks and Parking Lots

Avoid making changes in the ground level near any historic building, except for minor changes designed to promote drainage away from the building or for the installation of a drainage system. New plantings and sidewalks are usually allowable as long as drastic changes in the character of the site do not occur. Whenever possible, locate parking areas at the rear of the site or away from the public's view. In most cases, parking areas should not abut historic buildings. Extensive site work may necessitate the submittal of a proposed site plan and other information with the application.

### Treatment of Existing Outbuildings

Rehabilitation of existing outbuildings, including garages, smokehouses, kitchens, barns, etc., may be eligible for the tax credits if they contribute to the

significance of the property or district. Due to the significant contextual relationship, which exists between principal buildings and outbuildings, contributing outbuildings should not be relocated. Demolition of outbuildings which contribute to the significance of the property or district should be avoided as demolition may result in the failure of the overall project to meet the Standards and result in denial of certification.

### New Construction

All new construction, although not eligible for the tax credits, shall be compatible with the historic property. New construction must be compatible with respect to site, size and scale, and detailing, including material. In general, all new construction should take place to the rear of the historic building and not overwhelm it. Site plans and elevation

drawings of the new structure must accompany the request for certification of a proposed rehabilitation.

### Treatment of Archaeological Remains

Archaeological remains may include prehistoric or historic deposits or features. Generally, certification does not require archaeological investigations unless the site contains known archaeological resources. If during the project archaeological resources are discovered, please contact the Office of State Archaeology, 109 East Jones Street, Raleigh, NC 27601, telephone 919/733-7342.

## BUILDING EXTERIORS

The extent to which a building's exterior appearance may be altered and still meet the Standards depends on the significance of the architectural features and the visibility of the area in which the changes are to take place. The primary facade is generally the one that is highly visible from public rights-of-way and, in most cases, has significant architectural detailing. A secondary facade is one that, while generally visible from public rights-of-way, may have fewer distinguishing architectural features than the primary facade. A rear facade is one that is generally not viewed by the public and may not contain as many architecturally significant features as the primary facade. As a general rule, primary facades should be left as intact as possible; secondary and rear facades are given more latitude with respect to alterations, changes, or additions.

### Repair or Replacement of Original Features

Repair of exterior features is a typical activity in a rehabilitation project. "Feature" refers to almost any building component from wood trim to chimneys to porches. It is usually acceptable to repair the existing feature as long as the method of repair does not cause damage to the surrounding materials.

Closely related to repair is the replacement of original elements. This is generally allowable if the original feature is substantially deteriorated and the new feature will accurately replicate the original in size, shape, and, preferably, material.

An application may be denied if replacement of original materials is excessive or unnecessary. For example, if an entire element, such as a cornice, is proposed to be replaced because a relatively small section is deteriorated, denial is likely. Sound original materials are part of the history of the building and should be left in place; only the deteriorated section should be repaired or replaced.

### Roofs

The roof and related features such as cresting, dormers, cupolas, chimneys, and the size, color, and patterning of the roofing material can be extremely important in defining the building's overall historic character. A weathertight roof is essential to the preservation of the entire structure; thus, protecting and repairing the roof is a critical aspect of each rehabilitation project.

It is important that surviving original roofing material be preserved whenever possible. Certain types of roofing such as slate, clay tile, or metal may be visually prominent and their loss would negatively impact the overall significance of the building. If the roofing material is a character-defining feature, repairs including limited in-kind replacement will be in keeping with the Standards. If the historic roofing material is too deteriorated to repair, then replacement either in-kind or with a compatible substitute material which conveys the same visual appearance will be acceptable.

The addition of new roof features such as skylights or roof vents may be acceptable if they have a low profile and are not visible from the primary elevation.

### Exterior Cleaning

Removal of dirt or paint from building exteriors generally will be approved if done in a manner that does not damage the historic materials. Every method of exterior cleaning carries with it some risk of damage to the building materials; therefore, the methods to be used for cleaning should be specified in the application.

The Standards state that surface cleaning of buildings, if appropriate, should be undertaken with the "gentlest means possible" and prohibit using damaging methods, such as sandblasting or other abrasive cleaning methods. Equally damaging is high-pressure water blasting, even when no sand or other aggregate is added to the water. If abrasive cleaning is undertaken, certification that the project meets the Standards will be denied because of the damage to the building resulting from the use of these methods.

Owners are strongly encouraged to have a test patch done on an inconspicuous part of the building prior to the cleaning of the entire building. The test patch will demonstrate the appropriateness of the

cleaning method, level of cleaning necessary, and the competence of the contractor. The test patch should also serve as a standard of cleaning for the contractor. The Part A application should include the proposed method of cleaning and areas identified for test patches. The test patch should be photographed and included in the post-rehabilitation photographs submitted with the Part B application requesting final certification.

## Exterior Painting

Exterior painting of existing, painted surfaces is usually approved and, in most cases, does not require a lengthy description of the colors; however, the use and traditional placement of historically appropriate paint colors will enhance any building's rehabilitation. If paint removal is a part of the project, the method of paint removal proposed should be specified. (See Exterior Cleaning above).

An application is likely to be denied under the following circumstances: the method used to remove existing paint is likely to damage the building materials; previously unpainted brick or masonry is proposed to be painted; or the proposed color placement or selection is unusual and out of character with the historic building.

## Masonry Repointing

Typically the most common masonry repair item will be "repointing," which is the replacement of deteriorated mortar in brick and stone buildings. If done improperly, repointing can cause damage to the building's structure and visual appearance. It is important that the composition of the new mortar duplicate the original mortar of the existing building in strength, color, and detailing.

The method used to remove deteriorated mortar is also an important consideration. Hand chiseling of deteriorated mortar joints is the method least likely to cause damage to brick or stone. Cutting the mortar out with masonry saws and removing it with power chisels can sometimes be performed without damaging the bricks, but when these operations are performed carelessly, they can cause permanent damage to the masonry.

The composition of the new mortar must be in keeping with the original mortar. Too often, especially in brick walls and chimneys, mortar joints are repointed with Portland cement compounds that are harder than the bricks themselves and consequently result in the brick face cracking or spalling (falling off). A reasonably soft mortar should contain at least as much hydrated lime as Portland

cement, and preferably two or three times as much for pre-1875 buildings and those having softer hand-made brick.

The appearance of the new joints should match the original. The primary concerns with the visual appearance of the joints are with the color and texture of the replacement mortar, the joint width, and the tooling. If the mix contains Portland cement, white Portland cement should be used because gray Portland cement usually results in an inappropriate mortar color. If the aggregate or sand used in the mortar mix does not give the appropriate color, masonry pigments may be added to tint the mortar. Note that the mortar will take a minimum of four weeks of curing time before the final color is reached. The new mortar joints should be slightly recessed from the face of the brick since bringing the mortar joint flush with the face of the brick will create a visually thicker mortar joint.

Because of the potential damage that can result from any type of repointing, a test patch should be completed by the contractor to demonstrate competency in removing existing mortar and in matching the existing or original mortar. Repointing should be limited to those joints that are deteriorated; if done properly, the newly repointed joints will match those of the rest of the building. Limited repointing is the most economical procedure, as well as the best preservation practice.

An application is likely to be denied if removal of deteriorated mortar joints results in damage to the surrounding brick or stone or the repointing mortar does not convey the same visual appearance of the original mortar joints, i.e. dissimilar in mortar color, or joint thickness.

## Windows/Doors

Original windows and doors are significant features of virtually all historic properties. The Standards emphasize the retention of character-defining features, including windows and doors, over replacement when undertaking a historic rehabilitation. The repair of the original windows is strongly recommended.

Replacement of original windows, doors, and related elements should only occur when the existing is deteriorated beyond repair. The wholesale replacement of original windows and doors will rarely be necessary or acceptable. Reasons other than deterioration, including peeling paint or paint build-up, rotten sills, broken muntins (dividing bars), broken glass, or energy efficiency, do not justify wholesale replacement.

If the proposed rehabilitation calls for the replacement of windows, documentation must be provided that the existing windows have deteriorated beyond repair. Supporting documentation in the form of clear detail photographs and a "window survey" to indicate the conditions of all of the windows in the building must accompany the Part A application.

Replacement windows must duplicate the appearance of the original windows in every respect, including the placement and detailing of the muntins (dividing bars), the proportions of the original windows and sash, the thickness of sash elements, and the finishes. To demonstrate that the new windows match the old, comparative window sections, preferably at full or half scale, showing the head, sill, jamb, and muntin sections of the old and new windows must be submitted.

Accurate muntin reproduction is a major problem in replacement windows for historic buildings. In nearly all cases, artificial muntins are unacceptable, including those that are surface mounted on the exterior, those applied on the interior (sometimes called "snap-in" muntins), and those sandwiched between layers of double-glazing. Replacement windows must incorporate true muntins -- that is, muntins that actually divide the panes of glass. Furthermore, the appearances of the new muntins must substantially duplicate those of the original windows.

The use of tinted or reflective glass, including "Low-E" glass, is not allowed unless it is demonstrated that the new glass will be essentially clear and non-reflective. A sample of the glass should be submitted with the application if a tinted or "Low-E" glass is proposed.

For the purposes of improving energy efficiency, the installation of interior or exterior storm windows is recommended instead of replacing the original windows. Exterior storm windows may be made of wood or metal. Aluminum storm windows are acceptable as long as the metal tracks are mounted so that they do not protrude from the face of the window openings. The storm window meeting rails (where the top window sash and the bottom window sash touch) should align with those of the existing primary window. The finishes of aluminum storm windows should be painted or baked-on. Storm window glass should be clear, rather than tinted or "Low-E".

The use of inappropriate new replacement windows will result in the denial of certification for the tax credits. Similarly, the replacement of original windows for reasons other than severe and

irreparable deterioration may also result in denial of certification.

### **Artificial Siding**

The use of artificial siding, including vinyl or aluminum, is not recommended for use on any historic structure. The concealment of the original siding material and trim with a new surface material is inappropriate, as would be the installation of brick veneer on a frame building or stucco on a brick building. The use of artificial siding is not an acceptable alternative to making necessary repairs and routine maintenance such as painting.

The concealment of original materials with artificial siding reduces the architectural integrity of the building since most of the original surface of the building is essentially hidden from view. The use of artificial siding may also cause or accelerate structural problems, as well as conceal them. Additionally the installation of artificial siding materials often result in the removal or alteration of character-defining features such as corner boards, bracketed eaves, and door and window casings. The use of artificial siding is not in keeping with the Standards and will result in denial of certification.

### **New Additions**

New additions are not eligible for the tax credits but, like associated new construction, must be compatible with the historic character of the building, site, and district. Additions should be placed only on rear or secondary facades and should not be visible from the public right-of-way. New additions may be contemporary, but compatible in design, or may incorporate materials, proportions, or patterns of the existing historic structure, but should not attempt to look like part of the original construction. Elevation drawings showing the size, scale, and detailing of the new addition must be submitted with the Part A application.

## **BUILDING INTERIORS**

In reviewing interior work, the HPO will try to determine what effect the proposed rehabilitation will have on significant interior features and spaces. The level of significance of spaces and features is determined from the content of the National Register nomination for individually listed properties; for properties within districts, HPO review relies largely on the photographs submitted with the application.

The level of significance of interior spaces largely depends on whether the spaces are "primary" or "secondary". Primary spaces are those that are

important to the character of a building and should always be preserved; generally, secondary spaces may be altered. In single-family houses, primary spaces usually include "public spaces," such as parlors or living rooms, dining rooms, halls, and stairways. Secondary spaces may include bathrooms, kitchens, rear stairways, basements, and other spaces normally used only by family members. Although bedrooms may contain features such as trim, mantels, and decorative finishes which must be retained, they generally are considered secondary spaces.

If interior work is proposed, clear photographs illustrating the "before" condition of all affected spaces and significant interior features must accompany the Part A application. Post-rehabilitation photographs showing the same general views must be submitted with the Part B application.

### **Changes to the Floor Plan**

A building's floor plan is often one of the key elements in defining the historic character of a building. Since the layout of rooms is an important distinguishing feature of a building, changes to the floor plan should be limited to secondary spaces and should not affect character-defining features or primary spaces. Generally, walls should not be inserted into primary spaces and walls defining primary spaces should not be removed.

For projects that include changes to a building's floor plan, a sketch plan of the building showing the existing room layout and the proposed alterations must be provided. The plans submitted do not need to be drawn by an architect or professionally drafted, but should be understandable and include rough dimensions, as well as the location of doors, windows, fireplaces, stairs, etc.

### **Removal of Interior Trim or Other Features**

Interior features that are important in defining the historic character of a building should be repaired and retained. Character-defining features include but are not limited to the following: columns, cornices, baseboards, fireplaces and mantels, historic paneling, wainscoting, doors, window and door casings, decorative plaster, and staircases. If original features need to be removed during

rehabilitation, they should be reinstalled in their original locations before completion of the project.

The use of salvaged architectural features from other buildings is inappropriate if the effect is to create a "new" historic appearance. In no instance should an original feature, such as a mantel or staircase, be replaced with ones salvaged from another building.

### **Walls, Ceilings, and Floors**

The Standards encourage the repair and retention of original materials and features including walls, ceilings, and floors. Existing ceiling and wall materials such as plaster, wood, or metal should be repaired where possible. Replacement materials should convey the same visual appearance as the original. For example, gypsum wallboard, if finished smooth, is an appropriate substitute for flat plaster. Textured or "blown-on" finishes are not appropriate for use in most historic buildings.

When a new substitute material is introduced, such as gypsum wallboard for plaster, it is important that care is taken to maintain the historic relationship between the wall or ceiling and any existing trim such as door and window casings, baseboards, and ceiling moldings. In most instances, the wall plane should continue to be recessed from window or door casings and baseboards.

Original or existing flooring may be a character-defining feature of the interior. Power sanding and refinishing of early wood floors should be avoided if possible. Note that over-sanding of wood floors may result in unintended damage by creating thin areas, especially at the floor's tongue and groove joints. High gloss varnishes and polyurethanes are generally not appropriate for use in historic buildings due to the tendency to look "wet."

### **Paints and Finishes**

Interior repainting and installation of wallpapers will usually meet the Standards. Exceptions include those interiors where original paints or wallpapers are intact, or where significant decorative paint finishes such as graining, marbleizing, or stenciling have survived. Also of concern would be proposals to paint features which have been historically unfinished or to strip historically painted features to create a "natural wood look."

### **Insulation**

In order to improve energy efficiency of historic buildings, insulation with the proper vapor barrier should be installed in the attic and crawl spaces. Fiberglass batt insulation with an attached vapor barrier may be installed easily in these spaces. Blown-in insulation within the attic is also acceptable if a vapor barrier is provided.

If a building's exterior walls are opened up during rehabilitation, the installation of fiberglass batt insulation with vapor barrier is appropriate. Opening up exterior walls for the express purpose of installing insulation is not recommended. Furthermore, blown-in sidewall insulation is not recommended without an effective vapor barrier. Without a vapor barrier, moisture may condense within the wall cavity, leading to moisture damage to the building's structure.

### **Heating and Air Conditioning Systems**

Installation of new heating and cooling systems should be planned to cause the least alteration possible to the building's floor plan, interior features, and exterior elevations, and the least damage to the historic building materials. Installation of ducts, pipes, and cables should not obscure character-defining features and should be concealed whenever possible within attics, crawl spaces, closets, service rooms, or wall cavities.

### **Electrical and Plumbing Systems**

Installation or repair of electrical and plumbing systems will almost always meet the Standards. Some visible features of early plumbing and electrical systems may help to define the overall character of the building. The repair and retention of such character-defining lighting and plumbing fixtures is encouraged.

**For further information and additional technical assistance regarding rehabilitation projects, the Standards, or the historic preservation tax credits, contact:**

Restoration Branch, HPO  
State Historic Preservation Office  
N.C. Division of Archives and History  
4617 Mail Service Center  
Raleigh, NC 27699-4617

Telephone                    919-733-6547  
Fax                            919-715-4801

The Historic Preservation Office has numerous articles and publications relating to various aspects of historic preservation, including the Preservation Brief series published by the National Park Service. Single copies of the following Preservation Briefs are available upon request from the Restoration Branch at the aforementioned address.

- PB 1 The Cleaning and Waterproof Coating of Masonry Buildings
- PB 2 Repointing Mortar Joints in Historic Brick Buildings
- PB 3 Conserving Energy in Historic Buildings
- PB 4 Roofing for Historic Buildings
- PB 5 Preservation of Historic Adobe Buildings
- PB 6 Dangers of Abrasive Cleaning to Historic Buildings
- PB 7 The Preservation of Historic Glazed Architectural Terra Cotta
- PB 8 Aluminum and Vinyl Siding on Historic Buildings
- PB 9 The Repair of Historic Wooden Windows
- PB 10 Exterior Paint Problems on Historic Woodwork
- PB 11 Rehabilitating Historic Storefronts
- PB 12 The Preservation of Historic Pigmented Structural Glass
- PB 13 The Repair and Thermal Upgrading of Historic Steel Windows
- PB 14 New Exterior Additions to Historic Buildings: Preservation Concerns
- PB 15 Preservation of Historic Concrete: Problems and General Approaches
- PB 16 The Use of Substitute Materials on Historic Building Exteriors
- PB 17 Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid in Preserving Their Character
- PB 18 Rehabilitating Interiors in Historic Buildings
- PB 19 The Repair and Replacement of Historic Wooden Shingle Roofs
- PB 20 The Preservation of Historic Barns
- PB 21 Repairing Historic Flat Plaster - Walls and Ceilings
- PB 22 The Preservation and Repair of Historic Stucco
- PB 23 Preserving Historic Ornamental Plaster
- PB 24 Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches
- PB 25 The Preservation of Historic Signs
- PB 26 The Preservation and Repair of Historic Log Buildings
- PB 27 The Maintenance and Repair of Architectural Cast Iron
- PB 28 Painting Historic Interiors

- PB 29 The Repair, Replacement, and Maintenance of Historic Slate Roofs
- PB 30 The Preservation and Repair of Historic Clay Tile Roofs
- PB 31 Mothballing Historic Buildings
- PB 32 Making Historic Buildings Accessible
- PB 33 The Preservation and Repair of Historic Stained and Leaded Glass
- PB 34 Applied Decoration for Historic Interiors - Preservation of Composition Ornament
- PB 35 Understanding Old Buildings - The Process of Architectural Investigation
- PB 36 Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes
- PB 37 Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing
- PB 38 Removing Graffiti from Historic Masonry
- PB 39 Holding the Line: Controlling Unwanted Moisture in Old Buildings
- PB 40 Preserving Historic Ceramic Tile Floors
- PB 41 The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront
- PB 42 The Maintenance, Repair, and Replacement of Historic Cast Stone

Complete sets are available for a nominal fee from the Government Printing Office, Superintendent of Documents, P. O. Box 371954, Pittsburgh, PA 15250. Telephone 202/512-1800