

# Standards for Preservation and Guidelines for Preserving Historic Buildings

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*Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.*

**Standards for Preservation**

1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships. Where a treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.
2. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color, and texture.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

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## Guidelines for Preserving Historic Buildings

### Introduction

**Preservation** is the appropriate treatment when the objective of the project is to retain the building as it currently exists. This means that not only the original historic materials and features will be preserved, but also later changes and additions to the original building. The expressed goal of the **Standards for Preservation and Guidelines for Preserving Historic Buildings** is retention of the building's existing form, features, and materials. This may be as simple as basic maintenance of existing materials and features or may involve more extensive repair. Protection, maintenance, and repair are emphasized while replacement is minimized.

### Identify, Retain, and Preserve Historic Materials and Features

The guidance for the treatment **Preservation** begins with recommendations to identify the form and detailing of those architectural materials and features that are important in defining the building's historic character and which must be retained in order to preserve that character. Therefore, guidance on *identifying, retaining, and preserving* character-defining features is always given first.

### Stabilize Deteriorated Historic Materials and Features as a Preliminary Measure

Deteriorated portions of a historic building may need to be protected through preliminary stabilization measures until additional work can be undertaken. *Stabilizing* may begin with temporary structural reinforcement and progressing to weatherization, or correcting unsafe conditions. Although it may not be necessary in every preservation project, stabilization is nonetheless an integral part of the treatment **Preservation**; it is equally applicable, if circumstances warrant, for the other treatments.

### Protect and Maintain Historic Materials and Features

After identifying those materials and features that are important and must be retained in the process of **Preservation** work, then *protecting and maintaining* them are addressed. Protection generally involves the least degree of intervention and is preparatory to other work. Protection includes the maintenance of historic materials and features; or installation of fencing, alarm systems, and other temporary protective measures.

### Repair (Stabilize, Consolidate, and Conserve) Historic Materials and Features

Next, when the physical condition of character-defining materials and features requires additional work, *repairing* by *stabilizing, consolidating, and conserving* is recommended. The intent of **Preservation** is to retain existing materials and features while introducing as little new material as possible. Consequently, guidance for repairing a historic material, such as masonry, again begins with the least degree of intervention possible such as strengthening materials through

consolidation, when necessary, or repointing with mortar of an appropriate strength. Repairing masonry, as well as wood and metal features, may also include patching, splicing, or other treatments using recognized preservation methods. All work should be physically and visually compatible.

### Limited Replacement in Kind of Extensively Deteriorated Portions of Historic Features

The greatest level of intervention is the *limited replacement in kind* of extensively deteriorated or missing components of features when there are surviving prototypes or can be substantiated by physical or documentary evidence. The replacement material must match the old both physically and visually, e.g., wood with wood. Thus, with the exception of hidden structural reinforcement, substitute materials are not appropriate in the treatment **Preservation**. If prominent features are missing, such as an interior staircase or an exterior cornice, then a Rehabilitation or Restoration treatment may be more appropriate.

### Code-Required Work

#### Accessibility and Life Safety

These sections of the **Preservation** guidance address work done to meet accessibility requirements and life-safety requirements. This work may be an important aspect of preservation projects and it, too, must be assessed for its potential negative impact on the building's character. For this reason, particular care must be taken not to obscure, damage, or destroy character-defining materials or features in the process of undertaking work to meet code requirements.

***Preservation as a Treatment.** When the property's distinctive materials, features, and spaces are essentially intact and thus convey the historic significance without extensive repair or replacement; when depiction at a particular period of time is not appropriate; and when a continuing or new use does not require additions or extensive alterations, Preservation may be considered as a treatment. Prior to undertaking work, a documentation plan for Preservation should be developed.*

## Masonry

### *Recommended*

**Identifying, retaining and preserving** masonry features that are important in defining the overall historic character of the building such as walls, brackets, railings, cornices, window and door surrounds, steps, and columns; and decorative ornament and other details such as tooling and bonding patterns, coatings, and color.

**Stabilizing** deteriorated or damaged masonry as a preliminary measure, when necessary, prior to undertaking preservation work.

**Protecting and maintaining** masonry by ensuring that historic features, such as roof overhangs, gutters and downspouts, that divert rainwater from masonry surfaces are intact and functioning properly.

### *Not Recommended*

Altering masonry features which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

Replacing historic masonry features instead of repairing or replacing only the deteriorated masonry.

Applying paint or other coatings, such as stucco, to masonry that has been historically unpainted or uncoated.

Removing paint from historically-painted masonry.

Failing to stabilize deteriorated or damaged masonry until additional work is undertaken, thus allowing further damage to occur to the historic building.

Failing to evaluate and treat the various causes of mortar joint deterioration such as leaking roofs or gutters, or rising damp.

Cleaning masonry only when necessary to halt deterioration or remove heavy soiling.

Carrying out masonry cleaning tests when it has been determined that cleaning is appropriate. Test areas should be examined to ensure that no damage has resulted and, ideally, monitored over a sufficient period of time to allow long-range effects to be predicted.

Cleaning soiled masonry surfaces with the gentlest method possible, such as low-pressure water and detergent, using natural bristle or other soft-bristle brushes.

Using biodegradable or environmentally-safe cleaning products.

Using paint-removal methods that employ a poultice to which paint adheres, when possible, to neatly and safely remove old lead paint.

Using coatings that encapsulate lead paint, when possible, so that it does not have to be removed to meet life-safety code requirements.

Cleaning masonry surfaces when they are not heavily soiled, thus needlessly introducing chemicals or moisture into historic materials.

Cleaning masonry surfaces without testing or without sufficient time for the testing results to be studied.

Cleaning or removing paint from brick or stone surfaces using most abrasive methods, including high-pressure water which can damage the surface of the masonry.

Using a cleaning or paint-removal method that involves water or liquid chemical solutions when there is any possibility of freezing temperatures.

Cleaning with chemical products that will damage some types of masonry, such as using acid on limestone or marble; or failing to neutralize or rinse off chemical cleaners from masonry surfaces.

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Allowing only trained conservators to use abrasive or laser cleaning methods when necessary to clean hard-to-reach highly-carved or detailed decorative stone features.

Removing damaged or deteriorated paint only to the next sound layer using the gentlest method possible (e.g., hand scraping) prior to re-painting.

Applying compatible paint coating systems to historically-painted masonry following proper surface preparation.

Repainting with colors that are historically compatible with the historic character of the building and district.

Protecting the masonry when undertaking work.

Evaluating the overall condition of materials and features to determine whether more than protection and maintenance are required, such as repairs to features, will be necessary.

**Repairing, stabilizing, and conserving** masonry by using well-tested consolidants, when appropriate. Repairs should be physically and visually compatible.

Repairing masonry walls and other masonry features by repointing the mortar joints where there is evidence of deterioration such as disintegrating mortar, cracks in mortar joints, loose bricks, or damaged plaster on the interior.

Removing paint that is firmly adhering to masonry surfaces.

Using paint colors that are not compatible with the historic color of the building.

Failing to protect adjacent materials when cleaning or removing paint from masonry.

Removing masonry that could be stabilized, repaired, and conserved; or using untested consolidants and unskilled personnel, thus risking further damage to historic materials.

Removing non-deteriorated mortar from sound joints, then repointing the entire building to achieve a uniform appearance.

Removing deteriorated lime mortar carefully by hand raking the joints to avoid damaging the masonry.

Using power tools in conjunction with hand chiseling to remove hard mortar that is deteriorated or is a non-historic material that is causing damage to the masonry units. Mechanical cutting tools should generally not be used on short, vertical joints in brick masonry.

Duplicating historic mortar in strength, composition, color, and texture.

Duplicating historic mortar joints in width and joint profile.

Repairing stucco by removing the damaged material and patching with new stucco that duplicates the old in strength, composition, color, and texture.

Allowing unskilled workers to use masonry saws to remove deteriorated mortar from joints prior to repointing.

Repointing with mortar of high Portland cement content (unless it is the content of the historic mortar).

Using “surface grouting” or a “scrub” coating technique, such as a “sack rub,” or “mortar washing,” to repoint exterior masonry units instead of traditional repointing methods.

Changing the width or profile of the joint when repointing.

Repointing masonry units, other than concrete, with a synthetic caulking compound instead of mortar.

Removing sound stucco; or repairing with new stucco that is different in composition from the historic stucco.

Patching stucco or concrete without removing the source of deterioration.

Replacing deteriorated stucco with synthetic stucco, an exterior insulating system, or other non-traditional materials.

Using mud plaster as a surface coating over or to repair unfired, unstabilized adobe.

Applying cement stucco to unfired, unstabilized adobe.

Sealing joints in concrete with appropriate flexible sealants and backer rods, when necessary.

Cutting damaged concrete back to remove the source of deterioration, such as corrosion on metal reinforcement bars. The new patch must be applied carefully so that it will bond satisfactorily with, and match, the historic concrete.

Patching damaged concrete without first removing the source of deterioration.

Using a non-corrosive, stainless-steel anchoring system when replacing damaged terra-cotta units that have failed.

Repairing masonry features by patching, splicing, or otherwise reinforcing the masonry using recognized preservation methods.

Removing masonry that could be repaired or using improper repair techniques, or failing to document the new work.

Applying non-historic surface treatments, such as water-repellent coatings, to masonry only after repointing and only if masonry repairs have failed to arrest water penetration problems.

Applying waterproof, water-repellent, or non-original historical coatings, such as stucco, to masonry as a substitute for repointing and masonry repairs.

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*Recommended*

**Limited Replacement in Kind**

Replacing in kind extensively deteriorated or missing components of masonry features when there are surviving prototypes such as terracotta brackets or stone balusters, or when the replacement can be based on physical or historic documentation. The new work should match the old in material, design, color, and texture.

*Not Recommended*

**Limited Replacement in Kind**

Replacing an entire masonry feature, such as a column or stairway, when limited replacement of deteriorated and missing components is appropriate.

Using replacement material that does not match the historic masonry feature.

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**Wood***Recommended*

**Identifying, retaining, and preserving** wood features that are important in defining the overall historic character of the building such as siding, cornices, brackets, window and door surrounds, and steps; and their paints, finishes, and colors.

**Stabilizing** deteriorated or damaged work as a preliminary measure, when necessary, prior to undertaking preservation work.

**Protecting and maintaining** wood features by ensuring that historic features, such as roof overhangs, gutters, and downspouts which divert rainwater from wood surfaces, are intact and functioning properly.

Finding and correcting sources of moisture that may damage wood features, such as clogged gutters and downspouts, and leaky roofs, or moisture-retaining soil that touches wood around the foundation.

*Not Recommended*

Altering wood features which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

Replacing historic wood features instead of repairing or replacing only the deteriorated wood.

Changing the historic finish or coating.

Failing to stabilize deteriorated or damaged wood until additional work is undertaken, thus allowing further damage to occur to the historic building.

Failing to identify, evaluate, and treat the causes of wood deterioration, including faulty flashing, leaking gutters, cracks and holes in siding, deteriorated caulking in joints and seams, plant material growing too close to wood surfaces, or insect or fungal infestation.

Applying chemical preservatives to wood features, such as exposed beams ends or outriggers, that are subject to weathering and are traditionally unpainted.

Undertaking preventive measures to guard against insect damage, such as installing termite guards, fumigating, and treating with chemicals.

Retaining coatings, such as paint, that protect the wood from moisture and ultraviolet light. Paint removal should be considered only when paint is deteriorated there is paint surface deterioration and as part of an overall maintenance program which involves repainting or applying other appropriate coatings.

Removing damaged or deteriorated paint to the next sound layer using the gentlest method possible (hand scraping and hand sanding), then repainting.

Using thermal devices, such as infrared heaters, carefully to remove paint, such as with care when paint is so deteriorated that total removal is necessary prior to repainting.

Using coatings that encapsulate lead paint, when possible, so that it does not have to be removed to meet life-safety code requirements.

Stripping paint or other coatings completely from wood features without recoating, to reveal bare wood thus exposing historically-coated surfaces to the effects of accelerated weathering.

Removing paint that is firmly adhering to wood surfaces.

Using potentially damaging paint-removal methods such as open-flame torches, abrasive methods, or caustic paint-removers.

Using thermal devices without limiting the amount of time the wood feature is exposed to heat.

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Using biodegradable or environmentally-safe paint removers.

Using chemical strippers primarily to supplement other methods such as hand scraping, hand sanding, and thermal devices.

Failing to neutralize the wood thoroughly after using chemical paint removers so that new paint does not adhere.

Removing paint from detachable wood features by soaking them in a caustic solution which can roughen the surface, split the wood, or result in staining later caused by residual acid leaching out through the wood.

Applying compatible paint coating systems following proper surface preparation.

Repainting with colors that are compatible with the historic character of the building.

Using new colors that are not compatible with the historic character of the building.

Protecting wood features when working on other building materials.

Failing to protect wood features when working on other features of the building.

Evaluating the condition of the wood to determine whether more than protection and maintenance are required, such as repairs to wood features, will be necessary.

***Repairing, stabilizing, and conserving*** wood features using well-tested consolidants, when necessary. Repairs should be physically and visually compatible.

Removing wood that could be stabilized and conserved; or using untested consolidants and unskilled personnel, thus causing risking further damage to historic materials.

Repairing wood features by patching, splicing, or otherwise reinforcing the wood using recognized preservation methods.

Removing wood that could be repaired, or using improper repair techniques.

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*Recommended*

**Limited Replacement in Kind**

Replacing in kind extensively deteriorated or missing components of wood features when there are surviving prototypes such as brackets, molding, or sections of siding, or when it can be based on physical or historic documentation. The new work should match the old in material, design, color, and texture.

*Not Recommended*

Replacing an entire wood feature, such as a column or stairway, when limited replacement of deteriorated and missing parts is appropriate.

Using replacement material that does not match the historic wood feature.

## Metals

### *Recommended*

**Identifying, retaining, and preserving** metal features such as columns, capitals, pilasters, spandrel panels, or stairways that are important in defining the overall historic character of the building; and their finishes and colors. Identification is also critical to differentiate between metals prior to work. Each metal has unique properties and, thus, requires different treatments.

**Stabilizing** deteriorated or damaged metals as a preliminary measure, when necessary, prior to undertaking preservation work.

**Protecting and maintaining** metals from corrosion by providing proper drainage so that water does not stand on flat, horizontal surfaces or accumulate in curved decorative features.

### *Not Recommended*

Altering metal features which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

Replacing historic metal features instead of repairing or replacing only the deteriorated metal.

Changing the type of finish or its historic color or accent scheme.

Failing to stabilize deteriorated or damaged metals until additional work is undertaken, thus allowing further damage to occur to the historic building.

Failing to identify, evaluate, and treat the causes of corrosion such as moisture from leaking roofs or gutters.

Placing incompatible metals together without providing a reliable separation material. Such incompatibility can result in galvanic corrosion of the less noble metal, e.g., copper will corrode cast iron, steel, tin, and aluminum.

Cleaning metals, when appropriate necessary, to remove corrosion prior to repainting or applying other appropriate protective coatings.

Identifying the particular type of metal prior to any cleaning procedure and then testing to assure ensure that the gentlest cleaning method possible is selected or determining that cleaning is inappropriate for the particular metal.

Using non-corrosive chemical methods to clean soft metals, such as lead, tin, copper, terneplate, and zinc, whose finishes can be easily damaged by abrasive methods.

Using the least abrasive cleaning method for hard metals, such as cast iron, wrought iron, and steel, in order to remove paint buildup and corrosion. If hand scraping and wire brushing have proven ineffective, low-pressure abrasive methods may be used as long as they do not damage the surface.

Applying appropriate paint or other coating systems after cleaning metals to protect them from corrosion.

Leaving metals that must be protected from the environment uncoated after cleaning.

Using cleaning methods which alter or damage the historic color, texture, and finish of the metal; or cleaning when it is inappropriate for the particular metal.

Cleaning soft metals, such as lead, tin, copper, terneplate, and zinc, with grit blasting abrasive methods which will damage the surface of the metal.

Using high-pressure abrasive techniques without first trying gentler cleaning methods prior to cleaning cast iron, wrought iron, or steel.

Applying paint or other coatings to metals, such as copper, bronze or stainless steel, if they were not coated historically.

Removing the patina from historic metals. The patina may be a protective layer on some metals, such as bronze or copper, as well as a distinctive finish.

Applying an appropriate protective coating, such as lacquer or wax, to a metal feature, such as a bronze door, which is subject to heavy use.

Repainting with colors that are compatible with the historic character of the building.

Protecting metal features when working on other building materials.

Evaluating the condition of the metals to determine whether more than protection and maintenance are required, such as repairs to metal features, will be necessary.

**Repairing, stabilizing, and conserving** metal features using recognized consolidants, when necessary. Repairs should be physically and visually compatible.

Repairing metal features by patching, splicing, or otherwise reinforcing the metal using recognized preservation methods.

Failing to reapply coating systems after cleaning metals that require protection from corrosion.

Using new colors that are not compatible with the historic character of the building.

Failing to protect metal features when working on other building materials.

Removing metals that could be stabilized and conserved; or using untested consolidants and untrained personnel, thus causing further damage to fragile historic materials.

Removing features that could be repaired or using improper repair techniques.

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*Recommended*

### **Limited Replacement in Kind**

Replacing in kind extensively deteriorated or missing components of metal features when there are surviving prototypes such as porch balusters, column capitals or bases, or porch cresting; or when the replacement can be based on historic or pictorial documentation. The new work should match the old in material, design, and texture.

Replacing an entire metal feature, such as a column or balustrade, when limited replacement of deteriorated components is appropriate.

Using replacement material that does not match the historic metal feature.

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**Roofs***Recommended*

**Identifying, retaining, and preserving** roofs—and their functional and decorative features—that are important in defining the overall historic character of the building. The shape of the roof—gable, hipped, gambrel, flat, or mansard—is significant, as are its decorative and functional features such as cupolas, cresting, parapets, monitors, chimneys, weather vanes, dormers, ridge tiles, and snow guards ; and roofing material such as slate, wood, clay tile, or metal; and its size, color, and patterning.

**Stabilizing** deteriorated or damaged roofs as a preliminary measure, when necessary, prior to undertaking preservation work.

**Protecting and maintaining** a roof by cleaning gutters and downspouts and replacing deteriorated flashing. Roof sheathing should also be checked for indications of moisture due to leaks or condensation.

Providing adequate anchorage for roofing material to guard against wind damage and moisture penetration.

*Not Recommended*

Altering the roof and roofing materials which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

Replacing historic roofing material instead of repairing or replacing only the deteriorated material.

Changing the type or color of roofing materials.

Failing to stabilize a deteriorated or damaged roof until additional work is undertaken, thus allowing further damage to occur to the historic building.

Failing to clean and maintain gutters and downspouts properly so that water and debris collect and cause damage to roof fasteners, sheathing, and the underlying structure.

Allowing flashing, caps, and exposed roof fasteners to corrode which accelerates deterioration of the roof.

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Protecting a leaking roof with a temporary waterproof membrane with a synthetic underlayment, roll roofing, plywood, or a tarpaulin until it can be repaired.

Repainting a roofing material that requires a protective coating and was painted historically, such as a terneplate metal roof or gutters, as part of regularly-scheduled maintenance.

Protecting a roof covering when working on other roof features.

Evaluating the condition of the roof and roof features to determine whether more than protection and maintenance are required, such as repairs, will be necessary.

**Repairing** a roof by ensuring that the existing historic roof or compatible non-historic roof covering is sound and waterproof.

Using corrosion-resistant roof fasteners, e.g., nails and clips, to repair a roof to help extend its longevity.

Leaving a leaking roof unprotected so that accelerated deterioration of historic building materials—masonry, wood, plaster, paint, and structural members—occurs.

Failing to repaint a roofing material that requires a protective coating and was painted historically, such as a terneplate metal roof, as part of regularly-scheduled maintenance.

Failing to protect roof coverings when working on other roof features.

Removing materials that could be repaired or using improper repair techniques.

Failing to reuse intact slates or tiles when only the roofing substrate or fasteners need replacement.

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*Recommended*

*Not Recommended*

### **Limited Replacement in Kind**

Replacing in kind extensively deteriorated or missing parts of roof features or roof coverings when there are surviving prototypes such as tile cresting or dormer trim, slates or tiles; or when it can be based on physical or historic documentation. The new work should match the old in material, design, color, and texture.

Replacing an entire roof feature, such as a chimney or dormer, when limited replacement of deteriorated and missing parts is feasible.

Using replacement material that does not match the historic roof feature.

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## Windows

### *Recommended*

**Identifying, retaining, and preserving** windows—and their functional and decorative features—that are important to the overall historic character of the building. The window material—wood or metal—is important, and how the window operates; as well as its components, including sash, muntins, ogee lugs, glazing, pane configuration, sills, mullions, casings, or brick molds; and related features, such as shutters.

**Stabilizing** deteriorated or damaged windows as a preliminary measure, when necessary, prior to undertaking preservation work.

**Protecting and maintaining** the wood or metal which comprises the window jamb, sash, and trim through appropriate surface treatments such as cleaning, rust removal, paint removal, and reapplication of protective coating systems.

### *Not Recommended*

Removing or substantially changing windows which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

Changing the appearance of windows that contribute to the historic character of the building; this would include installing replacement windows made from different materials with a different finish from the original if this would result in a noticeable change in the appearance of the window.

Changing the number, location, size, or glazing pattern of windows on elevations that contribute to the historic character of the building; cutting new openings on character-defining elevations; or installing a replacement window that does not fit in the historic window opening.

Failing to stabilize deteriorated or damaged windows as a preliminary measure, when necessary, prior to undertaking preservation work.

Failing to provide adequate protection of materials, such as painting the sash or reputtying the glazing, on a cyclical basis so that deterioration of the window results.

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Making windows weathertight by recaulking gaps in fixed joints and replacing or installing weatherstripping.

Protecting windows from chemical cleaners, paint, or abrasion during work on the exterior of the building.

Protecting and retaining historic glass when replacing putty or repairing other components of the window.

Sustaining the historic operability of windows by lubricating friction points and replacing broken components of the operating system such as hinges, latches, and sash chains or cords.

Adding storm windows with a simple, one-over-one pane configuration that will not obscure the historic characteristics of the windows. Storm windows are especially beneficial when installed over wood windows as they also protect them from accelerated deterioration.

Evaluating the overall condition of materials to determine whether more than protection and maintenance are required, such as repairs to windows and window features, will be required.

Failing to protect historic windows when working on other building features.

Failing to protect the historic glazing when making repairs.

Replacing windows solely because of peeling paint, broken glass, stuck sash, or high air infiltration. These conditions, in themselves, do not indicate that windows are beyond repair.

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**Repairing** window frames and sash by patching, splicing, consolidating, or otherwise reinforcing them using recognized preservation methods.

Replacing an entire window when repair is feasible.

Failing to repair and reuse window hardware such as sash lifts, latches, and locks.

Obscuring historic wood window trim with metal or other material.

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*Recommended*

*Not recommended*

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**Limited Replacement in Kind**

Replacing in kind extensively deteriorated or missing components of windows when there are surviving prototypes such as frames or sash; or when the replacement can be based on physical or historic documentation. The new work should match the old in material, design, color, and texture.

Replacing an entire window when limited replacement of deteriorated or missing components is appropriate.

Using replacement material that does not match the historic window.

## Entrances and Porches

### *Recommended*

**Identifying, retaining, and preserving** entrances and porches—and their functional and decorative features—that are important in defining the overall historic character of the building. The materials themselves are important, including wood, masonry and metal, as well as the features such as doors, transoms, pilasters, columns, balustrades, stairs, roofs, and projecting canopies.

**Stabilizing** deteriorated or damaged entrances and porches as a preliminary measure, when necessary, prior to undertaking preservation work.

**Protecting and maintaining** the masonry, wood, and metals that comprise entrances and porches through appropriate surface treatments such as cleaning, rust removal, paint removal, and reapplication of protective coating systems.

Protecting entrance and porch features when working on other features of the building.

**Repairing** entrances and porches by consolidating, patching and splicing the historic materials using recognized preservation methods.

### *Not Recommended*

Altering entrances and porches which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

Replacing historic entrance and porch features instead of repairing or replacing only the deteriorated material.

Failing to stabilize a deteriorated or damaged entrance or porch until additional work is undertaken, thus allowing further damage to occur to the historic building.

Failing to protect and maintain materials on a cyclical basis so that deterioration of entrances and porches results.

Failing to protect historic entrances and porches when working on other features of the building.

Removing material that could be repaired or using improper repair techniques.

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### Limited Replacement in Kind

#### *Recommended*

Replacing in kind extensively deteriorated or missing components of entrance and porch features when there are surviving prototypes such as railings, balustrades, cornices, columns, sidelights, stairs, and roofs; or when the replacement can be based on physical or historic documentation. The new work should match the old in material, design, color, and texture.

#### *Not Recommended*

Replacing an entire entrance or porch feature when limited replacement of deteriorated and missing components is feasible.

Using replacement material that does not match the historic entrance or porch feature.

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## Storefronts

### *Recommended*

**Identifying, retaining, and preserving** storefronts—and their functional and decorative features—that are important in defining the overall historic character of the building. The storefront materials themselves are important, including wood, masonry, metals, clear glass and pigmented structural glass; and features such as display windows, base panels, signs, doors, transoms, kick plates, piers and entablatures; as well as the configuration of the storefront.

**Stabilizing** deteriorated or damaged storefronts as a preliminary measure, when necessary, prior to undertaking preservation work.

**Protecting and maintaining** masonry, wood, glass, and metals which comprise storefronts through appropriate treatments such as cleaning, rust removal, paint removal, and reapplication of protective coating systems.

Protecting storefronts against arson and vandalism before work begins by boarding up windows and doors and installing alarm systems that are keyed into local protection agencies.

Evaluating the existing condition of storefront materials to determine whether more than protection and maintenance are required, such as repairs to features, will be necessary.

### *Not Recommended*

Altering storefronts—and their features—which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

Replacing historic storefront features instead of repairing or replacing only the damaged material.

Failing to stabilize a deteriorated or damaged storefront until additional work is undertaken, thus allowing further damage to occur to the historic building.

Failing to provide adequate protection of materials on a cyclical basis so that deterioration of storefront features results.

Leaving the building unsecured with broken windows and doors so that interior features and finishes can be damaged by exposure to weather or vandalism.

Failing to protect the historic storefront when working on other features of the building.

**Storefronts***Recommended*

**Repairing** storefronts by consolidating, patching, or splicing the historic materials using recognized preservation methods.

*Not Recommended*

Removing historic material that could be repaired or using improper repair techniques.

*The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment **Preservation**, and should only be considered after protection, stabilization, and repair concerns have been addressed.*

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*Recommended***Limited Replacement in Kind**

Replacing in kind extensively deteriorated or missing parts of storefronts where there are surviving prototypes such as doors, transoms, kick plates, base panels, bulkheads, piers or signs; or when the replacement can be based on physical or historic documentation. The new work should match the old in materials, design, color, and texture.

*Not Recommended*

Replacing an entire feature or storefront when limited replacement of deteriorated and missing components is feasible.

Using replacement material that does not match the historic storefront feature.

## Structural Systems

### *Recommended*

**Identifying, retaining, and preserving** structural systems—and individual features of systems—that are important in defining the overall historic character of the building. This includes the materials that comprise the structural system, including wood, metal and masonry, and the type of system, and its features such as posts and beams, trusses, summer beams, vigas, cast-iron or masonry columns, above-grade stone foundation walls, or load-bearing masonry walls.

**Stabilizing** deteriorated or damaged structural systems as a preliminary measure, when necessary, prior to undertaking preservation work.

**Protecting and maintaining** the structural system by keeping gutters and downspouts clear and roofing in good repair.

### *Not Recommended*

Altering visible features of historic structural systems which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

Overloading the existing structural system; or installing equipment or mechanical systems which could damage the structure.

Replacing a load-bearing masonry wall that could be augmented and retained.

Leaving known structural problems untreated such as deflected beams, cracked and bowed walls, or racked structural members.

Failing to stabilize a deteriorated or damaged structural system until additional work is undertaken, thus allowing further damage to occur to the historic building.

Failing to provide proper building maintenance that can prevent deterioration of the structural system.

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Examining and evaluating the existing condition of the structural system and its individual features using non-destructive techniques.

Using destructive probing techniques that will damage or destroy structural material.

Using treatments or products that can accelerate the deterioration of structural members.

***Repairing*** the structural system by augmenting individual components using recognized preservation methods. For example, weakened structural members, such as flooring framing, can be paired with a new member, braced, or otherwise supplemented and reinforced.

Upgrading the building structurally in a manner that diminishes the historic character of the exterior, such as installing strapping channels or removing a decorative masonry cornice; or damages interior features or spaces.

Replacing a structural member or other feature of the structural system when it could be augmented and retained.

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*Recommended*

**Limited Replacement in Kind**

Replacing in kind those visible portions or features of the structural system that are either extensively deteriorated or missing when there are surviving prototypes such as cast-iron columns and sections of load-bearing walls; or when the replacement can be based on physical or historic documentation. The new work should match the old in materials, design, color, and texture.

Considering the use of substitute material to replace structural features that are not visible. Substitute material must be structurally sufficient and physically compatible with the rest of the system.

*Not Recommended*

Replacing an entire visible feature of a structural system when limited replacement of deteriorated and missing components is appropriate.

Using material to replace a component of an exposed structural feature that does not match the historic feature.

Using substitute material that does not equal the load-bearing capabilities of the historic material or is physically incompatible with the structural system.

## Spaces, Features, and Finishes

### *Recommended*

**Identifying, retaining, and preserving** a floor plan or interior spaces, features, and finishes, that are important in defining the overall historic character of the building. Significant spatial characteristics include the size, configuration, proportion, and relationship of rooms and corridors; the relationship of features to spaces; and the spaces themselves such as lobbies, lodge halls, entrance halls, parlors, theaters, auditoriums, gymnasiums, and industrial, and commercial interiors. Color, texture, and pattern are important characteristics of features and finishes, which can include such elements as columns, plaster walls and ceilings, flooring, trim, fireplaces and mantels, paneling, light fixtures, hardware, decorative radiators, ornamental grilles and registers, windows, doors, and transoms; plaster, paint, and special finishes such as graining; and utilitarian, painted or unpainted, features, including wood, metal, or concrete exposed columns, beams, and trusses, and load-bearing brick, concrete, and wood walls.

### *Not Recommended*

Altering a floor plan or interior spaces—including individual rooms—which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

Altering features and finishes which are important in defining the overall historic character of the building so that, as a result, the character is diminished.

Replacing historic interior features and finishes instead of repairing or replacing only the deteriorated portion.

Installing new material that obscures or damages character-defining interior features and finishes.

Removing historic finishes such as paint and plaster.

Applying paint, plaster, or other coatings to surfaces that have historically been unfinished.

Changing the type of finish or its color, such as painting a historically-varnished wood feature, or removing paint from a historically-painted feature to varnish or stain it.

**Stabilizing** deteriorated or damaged interior features and finishes as a preliminary measure, when necessary, prior to undertaking preservation work.

Evaluating the existing condition of historic materials to determine whether more than protection and maintenance are required, such as repairs to interior features and finishes, will be necessary.

**Protecting and maintaining** historic materials, including plaster, masonry, wood, and metals, that comprise interior features through appropriate surface treatments such as cleaning, paint removal, and re-application of protective coating systems.

Protecting interior features and finishes against arson and vandalism before project work begins, by erecting temporary fencing, covering broken windows and boarding up open doorways, and installing fire alarm systems that are keyed into local protection agencies.

Protecting interior features, such as a staircase, mantel, flooring, or decorative finishes, from damage during project work by covering them with plywood, heavy canvas, or plastic sheeting.

Removing damaged or deteriorated paint and finishes to the next sound layer using the gentlest method possible, then repainting or refinishing using compatible paint or other coating systems.

Failing to stabilize a deteriorated or damaged interior feature or finish until additional work can be undertaken, thus allowing further damage to occur to the interior.

Failing to provide adequate protection to materials on a cyclical basis so that deterioration of interior features results.

Leaving the building unsecured and open to the weather without covering broken windows or boarding up open doorways so that the interior features and finishes can be damaged by exposure to weather or vandalism.

Failing to protect interior features and finishes when working on the interior.

Limiting abrasive cleaning methods to industrial or warehouse buildings with utilitarian, unplastered masonry walls; and where wood features are not finished, molded, beaded, or worked by hand. Low-pressure abrasive cleaning should only be considered if test patches show no surface damage, and after other, gentler methods have proven ineffective.

**Repairing** historic interior features and finishes by consolidating the materials using recognized preservation methods. The new work should match the old in material, design, color, and texture.

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*Recommended*

### **Limited Replacement in Kind**

Replacing in kind extensively deteriorated or missing components of interior features when there are surviving prototypes such as stairs, balustrades, wood paneling, columns, or decorative wall finishes, ornamental plaster, or pressed metal ceilings; or when the replacement can be based on physical or historic documentation. New work should match the old in material, design, color, and texture.

Using potentially damaging methods such as open-flame torches or abrasive techniques to remove paint or other coatings.

Removing materials that could be repaired or using improper repair techniques.

*Not Recommended*

### **Limited Replacement in Kind**

Replacing an entire interior feature when limited replacement of deteriorated and missing components is feasible.

Using replacement material that does not match the interior feature or finish.

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**Building Site***Recommended*

**Identifying, retaining, and preserving** features of the building site that are important in defining its overall historic character. Site features may include walls or fences; circulation systems such as walks, paths, or roads; vegetation such as trees, shrubs, grass, or other plant materials; landforms such as hills, terracing, or berms; furnishings and fixtures such as light posts or benches; decorative elements such as sculpture, statuary, or monuments; water features including fountains, streams, pools, or lakes; and subsurface archeological features which are also important to the site.

Retaining the historic relationship between buildings and the landscape.

**Stabilizing** deteriorated or damaged building and site features as a preliminary measure, when necessary, prior to undertaking appropriate preservation work.

**Protecting and maintaining** the site by providing proper drainage to ensure that water does not erode foundation walls, drain toward the building; or damage, or erode the landscape.

Minimizing disturbance of the terrain around buildings or elsewhere on the site, thus reducing the possibility of destroying or damaging important landscape features or archeological resources.

*Not Recommended*

Altering buildings and their features or site features which are important in defining the overall historic character of the property so that, as a result, the character is diminished.

Removing or relocating buildings or landscape features, thus destroying the historic relationship between buildings and the landscape.

Failing to stabilize a deteriorated or damaged building or site feature until additional work can be undertaken, thus allowing further damage to occur to the building site.

Failing to ensure that site drainage is adequate so that buildings and site features are damaged or destroyed; or alternatively, changing the site grading so that water no longer drains properly.

Using heavy machinery in areas where it may disturb or damage important landscape features or archeological resources.

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Protecting, e.g., preserving in place, important archeological resources.

Leaving known archeological material unprotected so that it is damaged during preservation work.

Preserving important landscape features through regularly-scheduled maintenance of historic plant material.

Allowing important landscape features or archeological resources to be lost or damaged or to deteriorate due to inadequate protection or lack of maintenance.

Protecting the building site and landscape features against arson and vandalism before preservation work begins, i.e., erecting temporary fencing and installing alarm systems that are keyed into local protection agencies.

Leaving the property unprotected before work begins so that the building and landscape features or archeological resources can be damaged or destroyed.

Providing continued protection of site and landscape features through pruning and vegetation management.

Removing or destroying features from the site such as fencing, masonry balustrades, or plant material.

Protecting building and landscape features when working on the site.

Failing to protect site features during work.

Evaluating the overall condition of materials and features to determine whether more than protection and maintenance are required, that is, if repairs to site features will be necessary.

**Repairing** existing historic site features which have damaged, deteriorated, or missing components to reestablish the whole feature and ensure retention of the integrity of historic materials.

Removing materials that could be repaired or using improper repair techniques.

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*The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment **Preservation**, and should only be considered after protection, stabilization, and repair concerns have been addressed.*

*Recommended*

**Limited Replacement in Kind**

Replacing in kind extensively deteriorated or missing features of the site where there are surviving prototypes such as part of a fountain or portions of a walkway; or when the replacement can be based on historical or pictorial or physical documentation of individual plants within a group, e.g., a hedge. New work should match the old in materials, design, color, and texture.

*Not Recommended*

Replacing an entire feature of the building or site when limited replacement of deteriorated or missing components is feasible.

Using replacement material that does not match the site features.

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**Setting (District/Neighborhood)***Recommended*

**Identifying, retaining, and preserving** building and landscape features which are important in defining the historic character of the setting. Such features can include roads and streets; furnishings and fixtures such as light posts or benches; vegetation, gardens, and yards; adjacent open space such as fields, parks, commons, or woodlands; and important views or visual relationships.

Retaining the historic relationship between buildings and landscape features of in the setting. For example, preserving the relationship between a town common or urban plaza and the adjacent historic houses, municipal buildings, historic roads, and landscape and streetscape features.

**Stabilizing** deteriorated or damaged building or landscape features in the setting as a preliminary measure, when necessary, prior to undertaking preservation work.

*Not Recommended*

Altering those building and landscape features of the setting which are important in defining the historic character.

Altering the relationship between the buildings and landscape features in the setting by widening existing streets, changing landscape materials, or constructing inappropriately-located new streets or parking areas.

Removing or relocating historic buildings or landscape features, thus destroying their historic relationship in the setting.

Failing to stabilize a deteriorated or damaged building or landscape feature in the setting until additional work can be undertaken, thus allowing further damage to occur to the setting.

**Protecting and maintaining** historic site features through pruning and vegetation management.

Failing to provide adequate protection of materials on a cyclical basis which results in the deterioration of building and landscape features.

Stripping or removing features from buildings or the setting such as porches, fencing, walkways, or plant material.

Protecting building and landscape features in the setting when undertaking work.

Failing to protect building and landscape features when working in the setting.

Evaluating the overall condition of materials and features in the setting to determine whether more than protection and maintenance are required, that is, if repairs, will be necessary.

**Repairing** features of the building and landscape using recognized preservation methods.

Removing material that could be repaired or using improper repair techniques.

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*The following work is highlighted to indicate that it represents the greatest degree of intervention generally recommended within the treatment **Preservation**, and should only be considered after protection, stabilization, and repair concerns have been addressed.*

*Recommended*

*Not Recommended*

### **Limited Replacement in Kind**

Replacing in kind extensively deteriorated or missing components of building and landscape features where there are surviving prototypes such as porch balustrades or paving materials; or when the replacement can be based on physical or historic documentation.

Replacing an entire feature of the building or landscape when limited replacement of deteriorated or missing components is appropriate.

Using replacement material that does not match the historic building or landscape feature.

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## Code-Required Work

*Sensitive solutions to meeting code requirements are an important part of protecting the historic character of the building and site. Thus, work that must be done to meet accessibility and life safety requirements in the treatment **Preservation** must also be assessed for its potential impact on the historic building and site.*

## Accessibility

### *Recommended*

Identifying the historic building's character-defining exterior features which may be affected by accessibility code-required work.

Complying with barrier-free access requirements in such a manner that character-defining spaces, features, and finishes are preserved.

Working with specialists in accessibility and historic preservation to determine the most sensitive solutions to comply with access requirements in a historic building.

Providing barrier-free access that promotes independence for the user to the highest degree practicable, while preserving significant historic features.

### *Not Recommended*

Undertaking code-required alterations before identifying those exterior features and interior spaces, features, and finishes which are character defining and, therefore, must be preserved.

Altering, damaging, or destroying character-defining features in order to comply with accessibility requirements.

Making changes to historic buildings without first consulting with specialists in accessibility and historic preservation to determine the most appropriate solutions to comply with access requirements.

Making access modifications that do not provide a reasonable balance between independent, safe access and preservation of historic features.

*Recommended*

Finding solutions to meet accessibility requirements that minimize the impact of any necessary alteration on the historic building, its site and setting, such as compatible ramps, paths, and lifts.

Minimizing the visual impact of accessibility ramps by installing them on secondary elevations, when it does not compromise accessibility, or screening them with ramps.

Adding a gradual slope to the sidewalk, if appropriate, to access the entrance of a commercial or retail structure, rather than installing a ramp that would be more intrusive to the historic character of the building and the district.

Installing a lift as inconspicuously as possible when necessary to locate on a primary elevation of the historic building.

*Not Recommended*

Making modifications for accessibility without considering the impact on the historic building, its site, and setting.

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## Code Requirements

### Life Safety

#### *Recommended*

Identifying the historic building's character-defining exterior features and interior spaces, features, and finishes which may be affected by life-safety code-required work.

Complying with life-safety codes in such a manner that character-defining exterior features and interior spaces, features, and finishes are preserved.

Removing building materials only after testing has been conducted to identify the hazardous materials and using only the least damaging abatement methods.

Providing workers with appropriate personal equipment for protection from hazards in the worksite.

#### *Not Recommended*

Undertaking code-required alterations to a building or site before identifying those exterior features and interior spaces, features, and finishes which are character defining and, therefore, must be preserved.

**Altering, damaging, or destroying character-defining exterior features and interior spaces, features, and finishes while making modifications to a building, its site, or setting to comply with code requirements.**

Removing building materials without testing to identify the hazardous materials; or using potentially damaging methods of abatement methods.

Removing hazardous or toxic materials without regard for workers' health and safety or environmentally-sensitive disposal.

Working with code officials and historic preservation specialists to investigate systems, methods, or devices to make the building compliant with life-safety codes to ensure that necessary alterations will be compatible with the historic character of the building.

Upgrading historic stairways and elevators to meet life-safety codes in a manner that ensures their preservation, i.e., so that they are not damaged or their character is not negatively impacted.

Installing sensitively-designed fire-suppression systems, such as sprinklers that preserve historic features and finishes.

Applying fire-retardant coatings, such as intumescent paint, when appropriate, which expand when exposed to heat, to add thermal pro-

Making life-safety, code-required changes to the building without consulting code officials and historic preservation specialists with the result that alterations negatively impact the historic character of the building.

Damaging or making inappropriate alterations to historic stairways and elevators or adjacent spaces in the process of doing work to meet code requirements.

Covering character-defining wood features with fire-resistant sheathing which results in altering their appearance.

Using fire-retardant coatings if they will damage or obscure character-defining features.

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**Climate Change and Natural Hazards**

Climate change and natural hazards should be addressed as part of a **Preservation** project. A historic building may have existing characteristics or features that help to address or minimize the impacts of climate change and natural hazards. These should always be used to best advantage when planning preventive treatments, so as to have the least impact on the historic character of the building.

*Recommended*

Evaluating potential impacts of climate change and natural hazards on character-defining features and undertaking work to avoid or minimize their loss, damage, or destruction in a manner consistent with the building’s historic character.

Retaining and preserving significant features and the overall historic character of the building when undertaking any work to address the impacts of climate change and natural hazards.

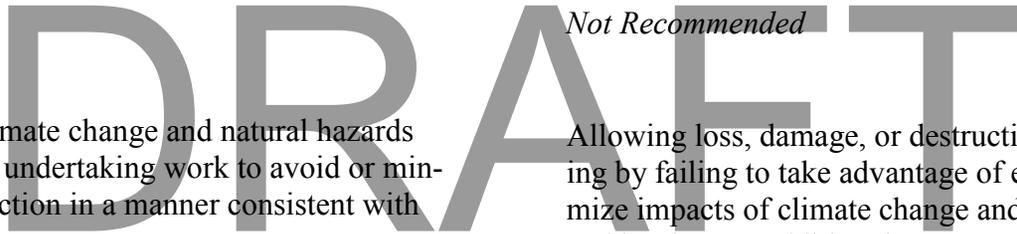
Maintaining character-defining features in good repair, regularly monitoring the condition of those features, and documenting the features as a record and guide for future work.

*Not Recommended*

Allowing loss, damage, or destruction to occur to the historic building by failing to take advantage of existing features designed to minimize impacts of climate change and natural hazards, or failing to plan and implement additional, new preventive measures, if necessary.

Failing to maintain character-defining features in good repair or not undertaking regular monitoring of the condition of the building.

Failing to maintain character-defining features in good repair or not undertaking regular monitoring of the condition of the building.



### Sustainability

Sustainability should be addressed as part of a **Preservation** project. Good preservation practice is often synonymous with sustainability. Existing energy-efficient features should be retained and repaired. New sustainability treatments should generally be limited to updating existing features and systems, so as to have the least impact on the historic character of the building.

(The topic of sustainability is addressed in detail in **The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings**. Although specifically developed for the treatment Rehabilitation, the Sustainability Guidelines can be used to help guide the other treatments.)

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