

**“Repairing National Treasures -- Overview of Issues Involved
in Repair of Historic Buildings”**

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**FDCC 2011 Annual Meeting
Williamsburg, Virginia
July 24-31, 2011
Property Insurance Section Meeting**

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I. Introduction

From 1699 to 1780, Williamsburg was the political and cultural center of Britain's largest colony in the New World. Today, Colonial Williamsburg is the nation's largest living history museum, and encompasses 301 acres including some 500 buildings, homes, stores and taverns reconstructed and restored to their 18th-century appearances. Williamsburg also houses 88 original 18th-century structures. The time, money, research, skill, materials, craftsmen needed for this undertaking were and are very different than the usual trades addressed during the underwriting, adjustment, assessment and repair of modern buildings and structures. This paper will address some of the unique issues related to insuring and repairing historic buildings.

II. Williamsburg Restoration

The restoration of Williamsburg is a mammoth undertaking that began in 1927 and continues today. The prime mover behind this enterprise was Dr. William A.R. Goodwin, then rector of Bruton Parish Church. Fascinated by the town's old buildings and historic past, he launched a one-man campaign to restore the old church, a feat that he successfully completed in 1907. In commemoration, Goodwin published a short book titled *Bruton Parish Church Restored and Its Historic Environment*. He expressed his concern for the historical ambience of the entire town, pleading that citizens should halt what he regarded as "the spirit of ruthless innovation which threatens to rob the city of its distinction and charm." He conceived of a grand vision of *restoring* not just a few key buildings, but all of Williamsburg to its eighteenth-century appearance. Restoration on such a scale was unprecedented, and would require enormous financial resources. Goodwin solicited Henry Ford about funding. Ford was not interested, but after meeting and inviting John D. Rockefeller to Williamsburg, Rockefeller became the patron of the restoration. He authorized hiring an architect who would prepare sketches of

Williamsburg as it might appear following restoration. The Boston architectural firm of Perry, Shaw & Hepburn was engaged. By 1927, preliminary drawings illustrating restoration of the *entire* town were complete, and Rockefeller instructed Goodwin to proceed with the acquisition of some key properties. The restoration of Williamsburg was underway!

An amazing amount of historical research was undertaken, and 18th century maps, estate inventories, and other archeological resources were researched and uncovered locally and in the archives of the Virginia State Library. From intact fragments of masonry, the architects deduced the bonding pattern, rubbing details, and joint treatment used by bricklayers more than 250 years earlier, in order to insure authenticity.

Goodwin and Rockefeller were well ahead of the times. The National Register of Historic Places, the official list of the Nation's historic places worthy of preservation, was first authorized by the National Historic Preservation Act of 1966. The National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.

III. Overview of Issues Involved in Repair of Historic Buildings

Thousands of buildings around the country carry historic designations. This section is intended to touch on the subject of historic structures and to provide an overview of Historic building designations on a national, state, and local level. This overview will also cover what such designations may mean during repair of an historic building.

A. Nationally Recognized Historic Buildings:

The National Register of Historic Places (National Register) is the US government's official list of districts, sites, buildings, structures, and objects deemed worthy of preservation. The National Register was formally created by the federal government in 1966 and throughout much of its existence has been maintained by the National Parks

Service (NPS). Today there are more than 80,000 properties listed in the National Register including 1.4 million individual resources -

The national register categorizes resources into one of five types: districts, sites, structures, buildings, or objects. Districts are defined by the NPS as areas consisting of contributing and non-contributing properties (buildings, structures and/or objects). Sites are identified as historic areas administered by the National Park Service such as landmarks, historic sites, battlefields and monuments. Buildings, as defined by the NPS are seen as having been created primarily to shelter human activity. The category of buildings includes houses, barns, hotels, churches, or similar construction. Structures, as defined by the NPS, are meant to be used for purposes other than sheltering human activity. Objects are usually artistic manmade creations and small compared to structures and buildings. It is worth noting that an historic building, structure, or object does not need to be located within an historic district. It is also worth noting that just because a building, structure, or object is located within an historic district does not mean this it is historic. In fact many of the buildings, structures, and objects found within historic districts have no historical significance whatsoever.

Since its inception, more than 1.4 million resources have been submitted for consideration and inclusion onto the National Register, but only 80,000 properties have been individually listed. Individually listed properties consist of buildings, sites, or structures. In addition to the 80,000 individually listed properties, there are nearly 1 million contributing buildings or structures found within historic districts. During the period from 1966 to 1980, very few resources were added due to tax disincentives. Today however, approximately 30,000 resources are added each year to the National Register. Of the thousands of structures added each year, most are added as part of districts due to the fact that fewer structures are being individually listed. Regrettably, each year several thousand resources are removed.

To be considered eligible, a property must meet the National Register Criteria for Evaluation. These criteria consider the property's age and integrity. Specifically, whether the property is old enough to be considered historic (generally at least 50 years old) and

whether it still looks much the way it did in the past. These criteria also consider the property's significance. Specifically, whether the property was associated with: events, activities, or developments that were important to US history; the lives of people who were important in the past; significant architectural history, landscape history, or engineering achievements; and whether it has the potential to yield information through archeological investigation about our past.

B. State and Locally Recognized Historic Buildings:

Outside of the NPS' National Register, there exist various local, regional, and State agencies that recognize historic landmarks. These individual agencies vary greatly in scope and authority depending on the degree to which the agency owns, controls, or affects historic properties. These are the organizations—not the National Register—which invoke or control local historic district zoning or local historic landmark designation. In other words, properties that are listed on the National Register and not managed by the NPS are not federally protected structures. Protection of historic structures or lack thereof is left to each State and the various zoning districts within that State. The various levels of historic recognition include:

- A building or structure that is individually listed on the National Register;
- A building or structure that is not individually listed on the National Register but is a contributing structure within an historic district listed on the National Register;
- A building or structure that is individually listed on State Historic Registry;
- A building or structure that is not individually listed on State Historic Registry but is a contributing structure within an historic district listed on State Historic Registry;
- A building or structure that is individually identified within a local zoning historic district; and
- A building or structure that is not individually identified within a local zoning district but is a contributing structure within a local zoning historic district.

C. Repair of Historic Buildings:

Historic buildings, like most existing buildings, require that major repair or restoration work be permitted and performed in accordance with State and local building and fire codes. These codes serve to set minimum standards with respect to protecting the safety, health and well being of the public. Historic structures however are often afforded variances and relaxed alternatives out of consideration for maintaining their historic character. When dealing with a building or structure that is recognized by the National Register, a qualifying rehabilitation must be achieved so as to maintain it standing on the National Register. A qualifying rehabilitation is one that the NPS deems consistent with the Secretary of the Interior's Standards for Rehabilitation. Therefore, complication often arises from the owner's obligation or election to maintain that same character. In other words, being recognized as an historic building is a double edge sword when repairing, restoring, reconstructing, or maintaining the building.

In simple terms, the greater the building's historic recognition, the greater the obligation to maintain it in its original condition. In exchange, building and fire codes will have little to no governance. Specifically, the need to complete or install "code upgrades" in conjunction with repairs is virtually eliminated. By contrast, the less significant the building's historic recognition, the less of an obligation to maintain its original condition or that of its outward appearance. In exchange, building and fire codes will have governance along with a much greater impact on what is required and "code upgrades" can come into play.

Taking the previous listing of various levels of historic recognition and further classifying it with respect to repairing, restoring, reconstructing, or maintaining an historic building produces the following:

- A building or structure that is individually listed on the National Register and qualified under:
 - Criterion C "Design/Construction" or Criterion D "Information Potential"
 - Criterion A "Event" or Criterion B "Person"

- A building or structure that is not individually listed on the National Register but is a contributing structure within an historic district listed on the National Register;
- A building or structure that is individually listed on State Historic Registry and is recognized as having:
 - with construction related significance
 - with social related significance
- A building or structure that is not individually listed on State Historic Registry but is a contributing structure within an historic district listed on State Historic Registry;
- A building or structure that is individually identified within a local zoning historic district; or
- A building or structure that is not individually identified within a local zoning district but is a contributing structure within a local zoning historic district.

The first classification above is a building that is individually listed on the National Register and qualified under criterion C as having significant historical design or construction importance. In this case the State and local building and fire codes will have virtually no impact of governance on the repair of this structure. The repair of this structure will need to meet the requirements of the Secretary of the Interior's Standards for Rehabilitation with some consideration to the American's with Disabilities Act Accessibility Guidelines (ADAAG).

The last classification above is a building that is not individually listed or recognized and only serves as a contributing structure within a local zoning historic district. In this case the requirements of the Secretary of the Interior's Standards for Rehabilitation will not govern. The repair of this structure will instead need to meet all of the State and local building and fire codes. These codes can be amended and are often relaxed so as to allow the building to maintain its outward appearance and aesthetic character in keeping with its historic district.

To illustrate these two extremes we will use the same building but with two different classifications, one at either end of the spectrum. The structure that we will use is a 115-year-old residential structure found within an historic district.

To exemplify the most extreme end of the scale, assume that this structure is individually listed on the on the National Register, that it qualified for the National Register under criterion C, and that it is recognized by both its State and its local historic district. As such not only do the local and State rules and guidelines apply, but so to does the Secretary of the Interior's Standards for Rehabilitation. It should be noted that criterion C is the criterion which qualifies a structure based on its design and/or construction. Therefore, given that the manner of qualification is that which must be preserved to the greatest extent possible, if one is faced with repairing a hand hewn roof framing member, its replacement must be a 115-year-old hand hewn beam of similar species. Further, this replacement member must also be installed in manner consistent with original construction.

At the other end of the spectrum, assume that this structure is not individually listed or recognized, that it only serves as a contributing structure within a local zoning historic district, and that it contains older additions inconsistent with the character of its historic district. As previously discussed, the Secretary of the Interior's Standards for Rehabilitation will not govern. Therefore, as with any typical residential structure, repairs will need to meet all of the State and local building and fire codes. However, because this structure contains older additions that are inconsistent with the character of its historic district, those older additions may be required to be removed. Further, the remaining repairs will require the outward appearance and aesthetic character to be brought into compliance with the character of its historic district.

Recognizing that there are various classifications of historic structures and varying repair requirements attached to each, it is recommended that a qualified consultant be retained as early in the adjusting / repair process as possible so as to avoid potential pitfalls.

IV. Insurance and Historic Buildings⁴

Insurance policies which insure fire, storm, and other property loss may contain gaps when it comes to covering losses at historic buildings. In particular, the owners of historic structures face an acute risk of policy limitations that can leave the owners underinsured for the costs of repair. Three issues are especially important when dealing with historic buildings: impact of codes and regulations on repair; effecting “like kind” repairs; and valuation.

A. Repair Issues- “Like Kind” Repairs; Repairs and Building Code Requirements

First, as noted above, historic buildings usually do not meet a variety of laws, ordinances, and building codes that have been enacted since these buildings’ original construction. Current building regulations often do not require the modification of pre-existing buildings to meet the newer requirements. But, if a building owner undertakes a significant repair or reconstruction of a building that is out of compliance with current regulations, the regulations are often triggered to require the repaired or reconstructed building to be updated to bring the structure up to current codes. Thus, the repair or reconstruction due to fire, storm, or similar damage may force a building owner to bring an historic structure into compliance with current regulations. The costs of bringing an historic structure into compliance with current codes can dramatically increase repair costs. States Codes have differing regulations with respect to Historic Buildings and sometimes are lax in enforcing some code provisions. However, most Fire Marshalls, have complete say as to the fire safety—including ingress, egress, and materials—of any building. Law and Ordinance coverage will be a significant issue to the insured of an historic building.

Second, a typical property insurance policy requires the insurer to pay the costs of repair or reconstruction necessary to return a damaged building to the building’s condition

⁴ Excerpted from: United States: Casualty Insurance For Historic Structures: Tread Carefully; April 24, 2009, Craig Litherland;

immediately prior to the occurrence of an insured risk. The policy requires an insurer to pay to “repair, rebuild or replace the property” to “like kind or quality.” In relation to modern equivalents, historic buildings are inherently expensive to repair and rebuild. Like kind and quality repairs, with historic materials, techniques, limitations to access, etc., may be more costly than modern repair materials or techniques and the insurer and insured must be able to communicate on the same page with respect to these issues. At the 2010 American Association of Insurance Services (AAIS) Main Event, Dave Mistick, president of Circumspex LLC, a Pittsburgh-based firm that helps organizations plan for and recover from disasters, addressed how the design and construction of historic buildings makes them more vulnerable to damage—especially by fire—and more expensive to repair after damage has occurred. He identified a number of other cost determinants (or cost-drivers), not the least of which is the availability of historic or similar materials, and trade or craftsmen in the area to do the work. Costs can rise dramatically when the skilled workers must be brought in from distant locations and when their housing, meals and transportation costs must be provided in addition to their wages. Other cost-drivers are hazardous materials that must be handled (such as asbestos abatement or lead paint removal), building codes, other regulatory requirements, and tax credit certification.

Historic components are some of the most challenging issues and require an expert to ferret out the potential pitfalls that await the owner or contractor. Mistick provided the following examples:

- Plaster castings, carvings and table runs
- Decorative finishes and architectural embellishments
- Material issues, such as lead, latex, or milk paint
- Historic millwork, such as hand carved vs. machine milled, including architectural millwork/custom profiles and installation labor
- Historic flooring, such as exotic or first-growth forest products

- Decorative metals, “historic” mechanicals and equipment, and fine art murals

B. Special Valuation Considerations Related to Property Insurance for Historic Buildings⁵

Valuation, both with respect to setting limits of liability in single structures, and valuation of a structure as part of a district or collection, is also much more difficult and requires special knowledge. In determining the proper value, traditional methods such as market or acquisition value, or replacement cost based on square footage, assembly costs, or unit costs usually do not work. Experts have opined that best and most reliable approach might be the toughest to sell to an insurance company—using estimates from a specialty contractor who works in this niche. It is important to remember that this cost estimate is driven by historic building components added to regulatory requirements to arrive at a true replacement cost.⁶

C. Considerations for Purchasing Historic Building Insurance

The classification of building along the continuum of historic designations set forth above may also impact the type of insurance which should be purchased or is financially feasible and the following issues must be considered:

- Does the building or structure have an historic value which would be destroyed or seriously compromised by rebuilding in part or whole? In such a case, full reinstatement insurance may not be necessary.
- Is the building part of a group of historic buildings, say in a conservation area, which would be greatly devalued if a single element was not rebuilt? In this case, the justification for full reinstatement insurance is greater.

⁵ From: <http://www.buildingconservation.com/articles/insure/insure.htm>: Insurance for Historic Buildings a Risky Business, Richard Sutch

⁶ From: Insuring historic structures requires careful attention to unique features; By Joseph J. Hunter-Lattak, CPCU, AIM, AMIM

- Does the building have a commercial value or interest which needs to be protected, for example as an obligation under a lease or mortgage; or alternatively where it forms part of an investment portfolio? Here, full reinstatement may be a contractual requirement or prudent in order to protect commercial interests.
- Would the premium based on a total reinstatement insurance policy outweigh both its historic or commercial value? In this case, a lesser form of insurance may be acceptable.

D. Specific Clauses Relating To Coverage for Historic Buildings

Policies which insure historic building often tailor coverage, in order to minimize premium and coverage to address the practical repair issues related to the insured risk.

Some special clauses include:

- *A modern materials clause* enables reconstruction to the same design but using modern and more readily available equivalent materials. Therefore cover will not be sufficient for the full cost of repairs to scheduled monuments and listed buildings, and may also be insufficient for buildings in conservation areas, where all repair and replacement work would usually be required to match the existing in material and detail.
- *First loss and agreed value insurance* provides cover to the largest single risk which may be represented by the largest building within a group or the most vulnerable part of a single building based on a single event. If the value of the reinstatement or rebuilding exceeds the value of cover, coverage may be limited to value of the lesser. A similar principle may be applied to irreplaceable works of craftsmanship or artistry which are deemed to be part of the building fabric. In such cases, an agreed value may be covered which might reasonably reflect the cost of a contemporary replica.
- *Indemnity cover* provides enough money to build a modern replacement building in the event of total or near total loss. Once again, complications will

occur in the case of partial loss whereby statutory requirements may impose the need to reinstate on a 'like for like' basis, in which case the full cost is very unlikely to be covered under such a policy.

- *Average cover* limits final payment to an agreed proportion of the actual total value of cover compared to the full reinstatement value. In effect, this would leave the building knowingly under insured, and there must be a clear understanding between both parties of the limitations and their implications.
- *No rebuilding insurance*: With certain monuments, reinstatement would detract from the historic value and if commercial value is not significantly affected, there may be little point in reconstruction. However, some cover should be obtained, if only to make the structure safe and, if appropriate, to record and remove debris. Large estate owners may also select to carry the full risk for loss or damage to individual buildings and structures, or indeed to the entire estate and not insure at all.

With historic buildings, there is always a possibility of an element of disrepair. Unless it was contributory to the loss or damage, a small amount of disrepair may be tolerated in the event of a claim. However, insurers are unlikely to contribute to improvements or betterment without making some adjustment to payments against a claim.

E. Fireman’s Fund Historic Property Coverage⁷

For years, Fireman’s Fund has insured historic commercial and private properties, including the Newport Mansions in Rhode Island. The historic property coverage insures buildings and districts that are certified by the National Park Service as well as those that are eligible for historic certification. The policies can cover “vintage” buildings, which are older buildings that are not eligible for certification but possesses historic characteristics and craftsmanship.

“The National Park Service has not certified or deemed eligible all historic properties in America, and America’s building stock continues to age. As a result we will see the historic buildings category grow over the coming years,” said Mike Roney, product executive at Fireman’s Fund. “These buildings have very special craftsmanship needs that need to be addressed within a customized insurance policy. For example, if an historic property is damaged, the materials needed to restore it may not be found at the local building supply store.”

According to Fireman’s Fund, the features of its historic property policy include:

- Flexible valuations: policyholders can choose different valuations ranging from historic replacement cost to guaranteed replacement cost
- Increased cost of construction due to landmark or other local ordinances or laws
- Costs incurred due to increased time to restore
- Historic certification expenses
- Loss of federal, state and local tax benefits
- Increased building assessments
- Green building upgrades to enhance energy efficiency

⁷ From: <http://www.buildingonline.com/news/viewnews.pl?id=6450>

V. Conclusion

Hopefully this short summary of historic designations and related insurance issues will provide some basic appreciation of the unique issues related to insuring, adjusting and repairing historic buildings and appreciation of the inherent value of the risk being undertaken.

Appendix

Links to Information Regarding the Identification, Preservation and Repair of Historic Buildings

As with any other topic, the Internet provides almost unlimited resources regarding the issue of preserving historic buildings. The federal government, each State, and many municipalities with historic districts provide a great deal of data. In general, however, most government sites address the application process, maintenance of databases, tax incentives, and other governmental issues. Many useful sites relating specifically to the repair of historic buildings after damage are published in UK, Scotland and Wales (one was in a language I didn't understand: "Menter Treftadaeth Treflunio Dynbich A'R Rhyl"). In the UK, the government offers substantial government funding to repair historic buildings via Trusts. I passed over the UK sites and provide below an assortment of US sites which address some of the unique issues and trades involved in the repair of Historic Structures.

1- Descriptions of Historical Architectural styles in the U.S.

<http://historicbldgs.com/styles.htm>

2- A listing of some Historic Districts in the U.S.

<http://historicbldgs.com/districts.htm>

3- Windows in historic buildings

<http://parks.ca.gov/pages/1054/files/heritage%20canada.pdf>

4- National Parks Service Preservation Briefs

<http://www.landmarksociety.org/section.html?id=1&uid=12>

- *****The National Park Service's **Preservation Portal Briefs** provide technical information about a wide variety of topics:
 1. [Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings](#)
 2. [Repointing Mortar Joints in Historic Masonry Buildings](#)

3. [Conserving Energy in Historic Buildings](#)
4. [Roofing for Historic Buildings](#)
5. [The Preservation of Historic Adobe Buildings](#)
6. [Dangers of Abrasive Cleaning to Historic Buildings](#)
7. [The Preservation of Historic Glazed Architectural Terra-Cotta](#)
8. [Aluminum and Vinyl Siding on Historic Buildings: The Appropriateness of Substitute Materials for Resurfacing Historic Wood Frame Buildings](#)
9. [The Repair of Historic Wooden Windows](#)
10. [Exterior Paint Problems on Historic Woodwork](#)
11. [Rehabilitating Historic Storefronts](#)
12. [The Preservation of Historic Pigmented Structural Glass \(Vitrolite and Carrara Glass\)](#)
13. [The Repair and Thermal Upgrading of Historic Steel Windows](#)
14. [New Exterior Additions to Historic Buildings: Preservation Concerns](#)
15. [Preservation of Historic Concrete: Problems and General Approaches](#)
16. [The Use of Substitute Materials on Historic Building Exteriors](#)
17. [Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character](#)
18. [Rehabilitating Interiors in Historic Buildings - Identifying Character-Defining Elements](#)
19. [The Repair and Replacement of Historic Wooden Shingle Roofs](#)
20. [The Preservation of Historic Barns](#)
21. [Repairing Historic Flat Plaster - Walls and Ceilings](#)
22. [The Preservation and Repair of Historic Stucco](#)
23. [Preserving Historic Ornamental Plaster](#)
24. [Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches](#)
25. [The Preservation of Historic Signs](#)
26. [The Preservation and Repair of Historic Log Buildings](#)
27. [The Maintenance and Repair of Architectural Cast Iron](#)
28. [Painting Historic Interiors](#)
29. [The Repair, Replacement, and Maintenance of Historic Slate Roofs](#)
30. [The Preservation and Repair of Historic Clay Tile Roofs](#)
31. [Mothballing Historic Buildings](#)
32. [Making Historic Properties Accessible](#)
33. [The Preservation and Repair of Historic Stained and Leaded Glass](#)
34. [Applied Decoration for Historic Interiors: Preserving Historic Composition Ornament](#)
35. [Understanding Old Buildings: The Process of Architectural Investigation](#)
36. [Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes](#)
37. [Appropriate Methods of Reducing Lead-Paint Hazards in Historic Housing](#)
38. [Removing Graffiti from Historic Masonry](#)
39. [Holding the Line: Controlling Unwanted Moisture in Historic Buildings](#)
40. [Preserving Historic Ceramic Tile Floors](#)
41. [The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront](#)

42. [The Maintenance, Repair and Replacement of Historic Cast Stone](#)
43. [The Preparation and Use of Historic Structure Reports](#)
44. [The Use of Awnings on Historic Buildings: Repair, Replacement & New Design](#)

5- Historic Building Repair Trades Directory- Listing of tradesmen addressing historic trades in repair throughout the country

http://www.restorationtradesdirectory.com/structural_repair_contractors

6- Missouri State Checklist for Addressing Damage and Repairs to Historic Buildings from Natural Disasters

<http://www.dnr.mo.gov/pubs/pub760.pdf>

7- U.S. Government Databases for Maintaining and Restoring Historic Buildings:

<http://www.gsa.gov/portal/content/104834>

8- Repair of Historic Marble and Limestone; Journal of Architectural Technology

<http://www.hoffarch.com/images/userfiles/journal26.pdf>

9- Timber frame Restoration and Repair

<http://www.historicstructuresdc.com/timberframe.html>

10- Masonry Repair and Restoration

<http://www.traditional-building.com/brochure/members/0waterproofing.shtml>