CHAPTER

I

Historic Districts and The Preservation Process

As Loudoun County's rural areas and villages developed through time, each generation left its physical imprint on the region.

The results are periods of various architectural styles, building types, street patterns and open spaces.

These individual buildings, villages, and rural landscapes have become more distinctive and treasured as they survive subsequent generations of development.

The Aldie Mill and its accompanying buildings are the centerpiece of the Aldie Historic District.

This view of Railroad Street shows the Victorian architecture of the Bluemont Historic District.

The Church of Our Savior continues to serve residents of the Oatlands Historic District.

Thomas Taylor, the mill owner, gave his name to the small village that is today the Taylorstown Historic District.

Rural views and agricultural outbuildings characterize the Goose Creek Historic District.

The Waterford Historic District is bounded by geographic limitations that historically have prevented further growth.

A. INTRODUCTION

As Loudoun County's rural areas and villages developed through time, each generation left its physical imprint on the region.

The results are periods of various architectural styles, building types, street patterns and open spaces. These individual buildings, villages, and rural landscapes have become more distinctive and treasured as they survive subsequent generations of development.

Loudoun County has a rich history; much of it conveyed by the county's preservation of its historic districts. The County has completed a number of basic steps crucial to the preservation of the county's rich architectural heritage.

The first phase in identifying historic resources is to conduct a historic buildings survey. Through these surveys, Loudoun County has identified and recognized the architectural, historic, and cultural significance of these areas.

Through further research and documentation, the historic districts of Aldie (1970), Bluemont (1984), Goose Creek (1981-82), Oatlands (1974), Taylorstown (1976-78, 2005), and Waterford (1969) were nominated for inclusion on both the Virginia Landmarks Register and the National Register of Historic Places. Listing on these registers, however, provided no protection for the preservation of these local resources.

In 1972, a local Historic Overlay was adopted as part of the Loudoun County Zoning Ordinance to provide such protection. The first locally designated and protected historic resources were the village of Waterford, the mill complex in Aldie, and Oatlands. Last updated in 2003, this local regulation establishes the criteria and review process for changes to be made to the exterior appearance of historic buildings and structures.

Loudoun County has six Historic and Cultural Conservation Districts under local review; Aldie, Bluemont, Goose Creek, Oatlands, Taylorstown, and Waterford.

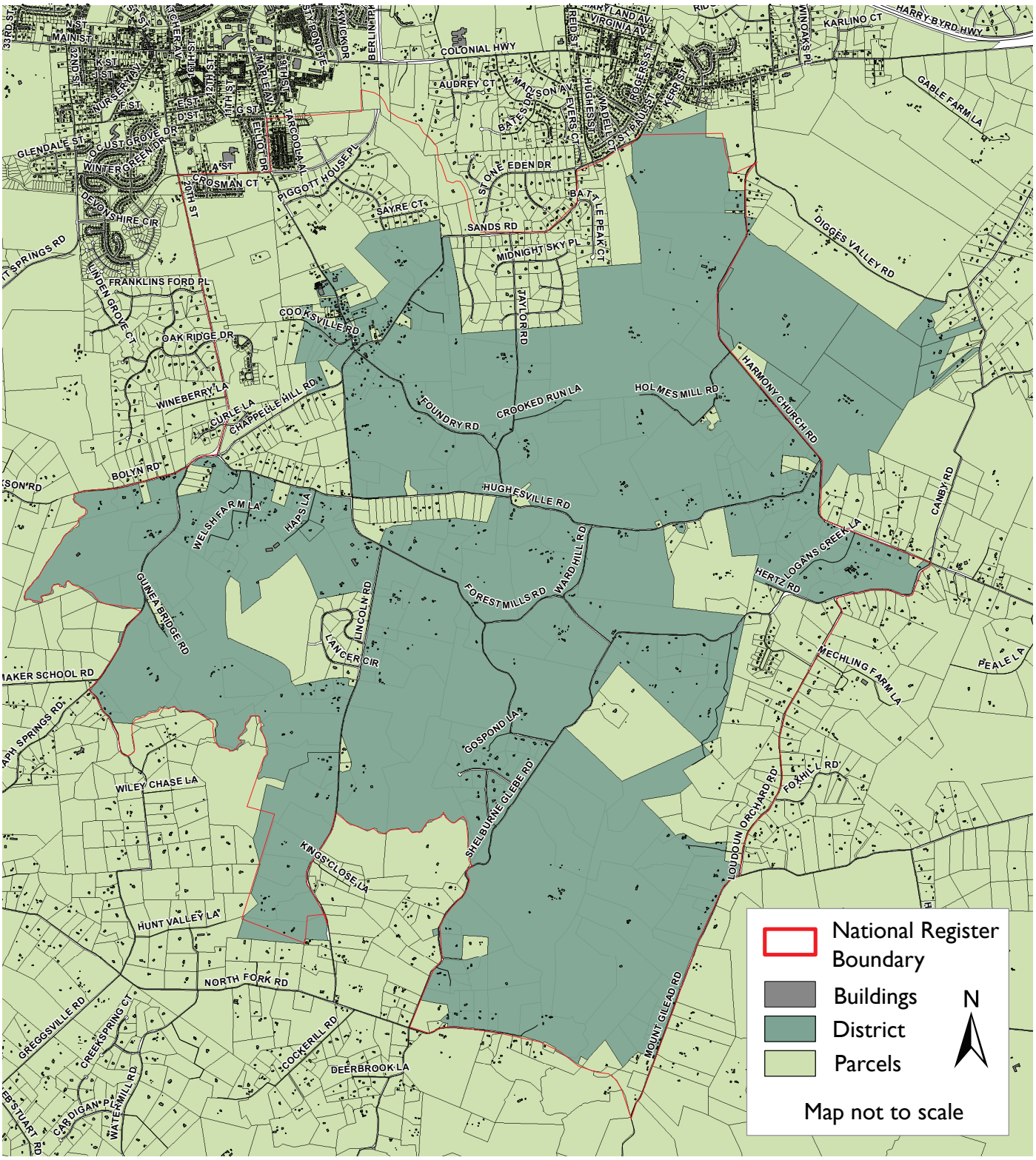
A. INTRODUCTION, continued

1. Map of Aldie Historic and Cultural Conservation District

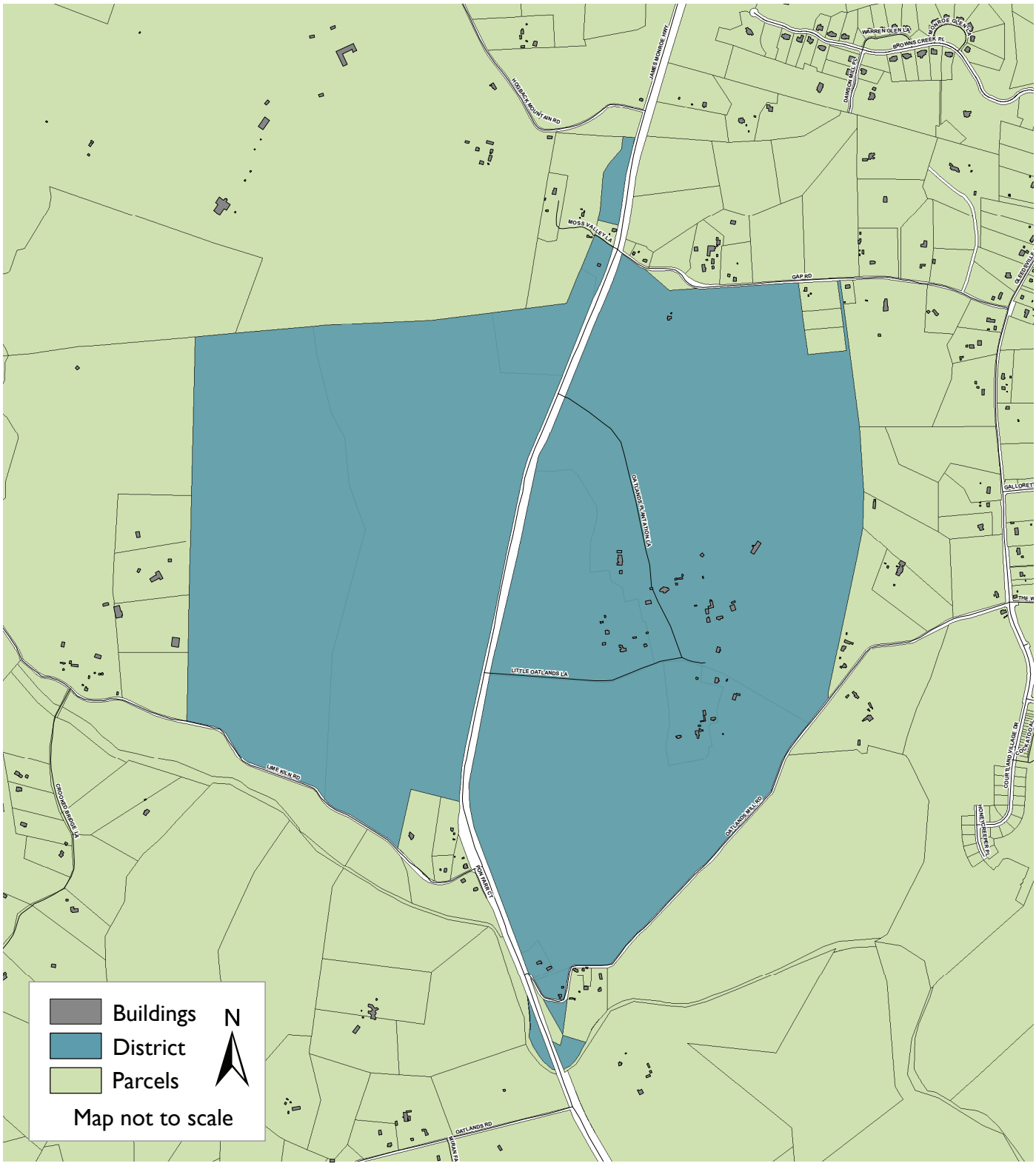
2. Map of Bluemont Historic and Cultural Conservation District

A. INTRODUCTION, continued

3. Map of Goose Creek Historic and Cultural Conservation District



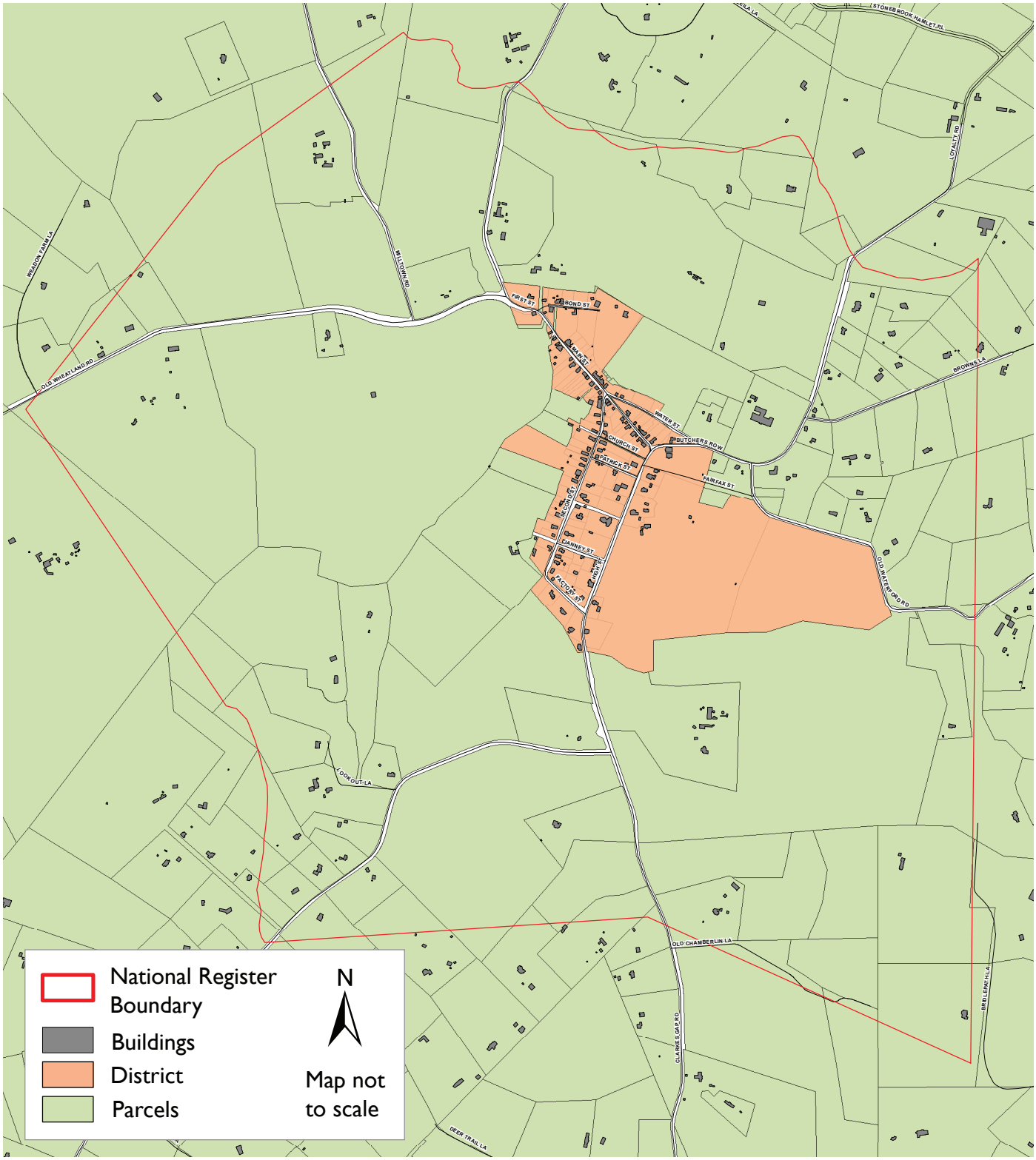
4. Map of Oatlands Historic and Cultural Conservation District

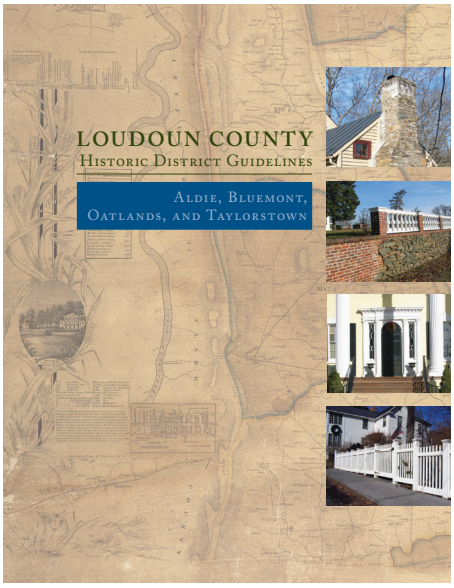


A. INTRODUCTION, continued

5. Map of Taylorstown Historic and Cultural Conservation District

6. Map of Waterford Historic and Cultural Conservation District





There are three sets of guidelines for Loudoun County's Historic and Cultural Conservation Districts. One each for Waterford and Goose Creek and a combined publication for the districts of Aldie, Bluemont, Oatlands and Taylorstown.

NOTE:

The guidelines document contains descriptions, photographs, and illustrations that apply to the villages and rural areas listed on the National Register of Historic Places and Virginia Landmarks Register. The local district overlay zoning designation, however, only applies to those properties depicted on the parcel maps for each district as contained in these guidelines and available on the county's website at http://www.loudoun.gov/historic.

PRESERVATION BRIEF #04:

Roofing for Historic Buildings

www.nps.gov/history/hps/tps/briefs/brief04.htm

B. EVALUATING YOUR PROPERTY AND YOUR PROJECT

1. Organization of Guidelines Chapters

Loudoun County's six Historic and Cultural Conservation Districts are covered by three guidelines documents. One document covers Aldie, Bluemont, Oatlands and Taylorstown; the second covers Goose Creek; and the third, Waterford. The information contained in *Chapters 1* and *6* through *10* are common to all three documents. *Chapters 2* through *5* are specific to each document.

Chapters 3 – 9 are all organized in the same general manner. By referencing the *Table of Contents* at the beginning of the document, you will be able to see quickly what topics are covered in each chapter. An introduction at the beginning of each chapter will provide general information on the group of topics covered. Each section within the chapter will follow the same format. Introductory paragraphs for each topic provide general information to introduce the concept, element, or material covered. Additional paragraphs contain specific text on the covered item as found in each of the historic districts.

Colored bullets will denote helpful information regarding Maintenance and Inappropriate Treatments.

- MAINTENANCE
- INAPPROPRIATE TREATMENTS

Following the information described above are the actual Guidelines. In instances where the element is not reviewed by the HDRC, Guidelines are replaced by Recommendations for Compatibility. In both cases, these items are arranged according to the principles of retain, repair, and replace.

- GUIDELINES
- RECOMMENDATIONS FOR COMPATIBILITY

The treatment that best preserves the historic integrity of the resource is the retention of as much of the historic fabric of the structure or site as possible. It is recognized, however, that time may take its toll on the original features of a building and that sensitive repairs will need to be made to the structure's historic fabric to ensure the longevity of the feature, element, or material.

It is also recognized that in rare instances it may be necessary to replace elements of a historic structure. By providing Maintenance information within the guidelines and links to more in-depth topics, it is hoped that this practice can be minimized. The concept of in-kind will be used frequently in these guidelines and refers to the replacement with like materials that have the same visual qualities as the original.

The guidelines user will be directed to the National Park Service's *Preservation Briefs* and other useful links relevant to the topic being covered. The *Preservation Briefs* provide technical information for over forty individual topics related to the preservation, rehabilitation and restoration of historic structures.

2. Significance

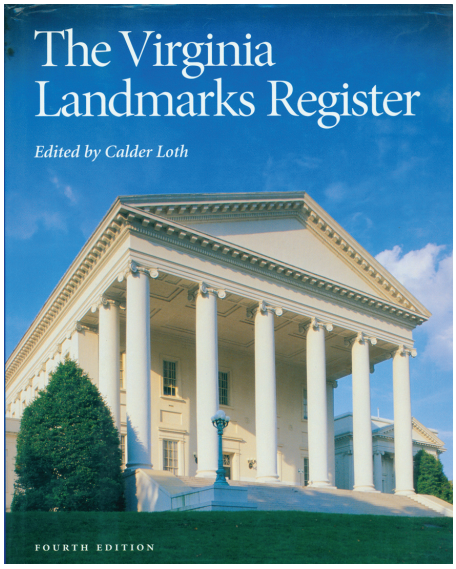
The preservation community recognizes different levels of significance for historic buildings and sites as identified through the Virginia Landmarks Register (VLR), National Register of Historic Places (NRHP), and National Historic Landmark (NHL) designation process.

It is important to note, however, that listing on these registers does not provide any local protection for the property or the district. The County's only regulatory authority comes from the local historic district zoning. (See *Section C*).

The Virginia Landmarks Register (VLR) is the state's official list of properties and districts important to Virginia's history. By inclusion on this register, the state seeks to recognize and encourage the preservation of these important resources.

The National Register of Historic Places (NRHP) seeks to identify, evaluate and protect districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. As of June 2008, Loudoun County had 70 listings on the NRHP including 11 historic districts.

National Historic Landmarks are designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. Loudoun County is fortunate to have five National Historic Landmark properties and sites. An individual property, Oatlands, and a district, Waterford, with this level of significance, are under local historic district zoning as covered by these guidelines.



Properties listed on the Virginia Landmarks Register can be found in this frequently updated reference or online.

The Village of Waterford is a rare instance of an entire district recognized with the distinction of National Historic Landmark status.

Oatlands is one of Loudoun County's individually listed National Historic Landmarks.

Check local listings for National and Virginia Register properties and districts at:

http://www.dhr.virginia.gov/registers/register_counties_cities.htm

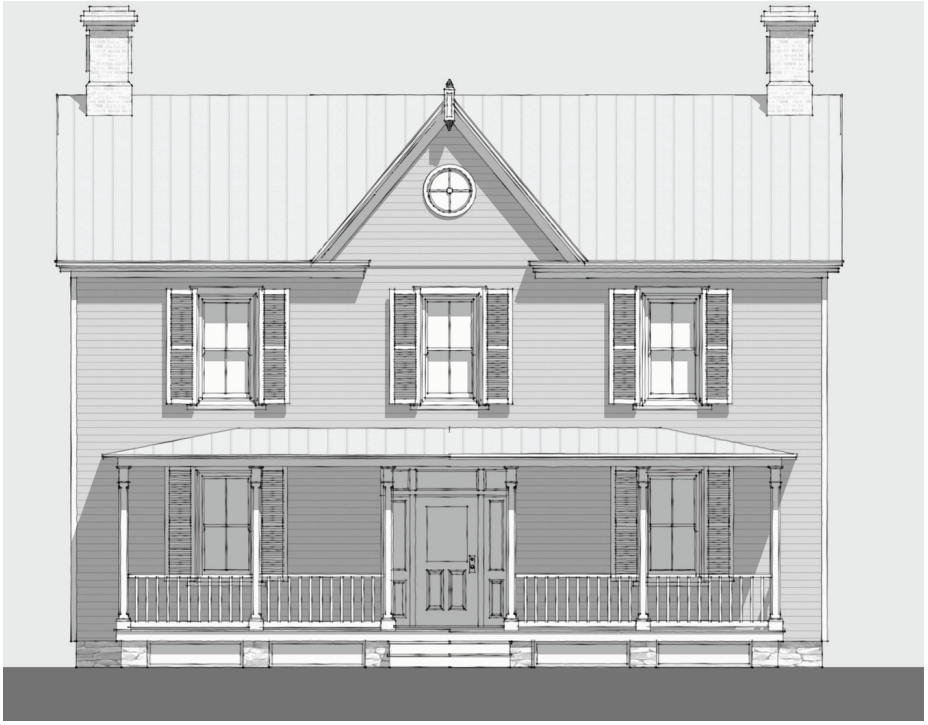
B. EVALUATING YOUR PROPERTY AND YOUR PROJECT, continued

The asbestos material covering the early-eighteenth-century Taylorstown Store has recently been removed and the building's weatherboard siding replaced as renovation efforts continue.

The Italianate porch added to the Federal style Mercer House in Aldie has acquired its own significance over time and should be retained.

3. Integrity and Alterations

The physical character of a historic district comes from its location, design, setting, materials, workmanship, feeling, and association. Changes may result in a loss of integrity to the structure, and when allowed on numerous historic structures, contribute to the loss of integrity of the district. However, changes that were made after the original construction and more than fifty years ago may have achieved their own level of significance and generally should be preserved.



The two images above show what can happen to the historic appearance of a house when elements are replaced improperly or removed. Note the change in roof texture, missing gable window, change in window-pane configuration, loss of shutters, change in siding reveal, removal of porch and replacement front door.

4. Project Approach

Terms such as preservation, restoration, and rehabilitation are often used interchangeably; however, they mean different approaches to the work performed on a historic structure. The treatments referred to in the following guidelines' chapters are based on a rehabilitation approach.

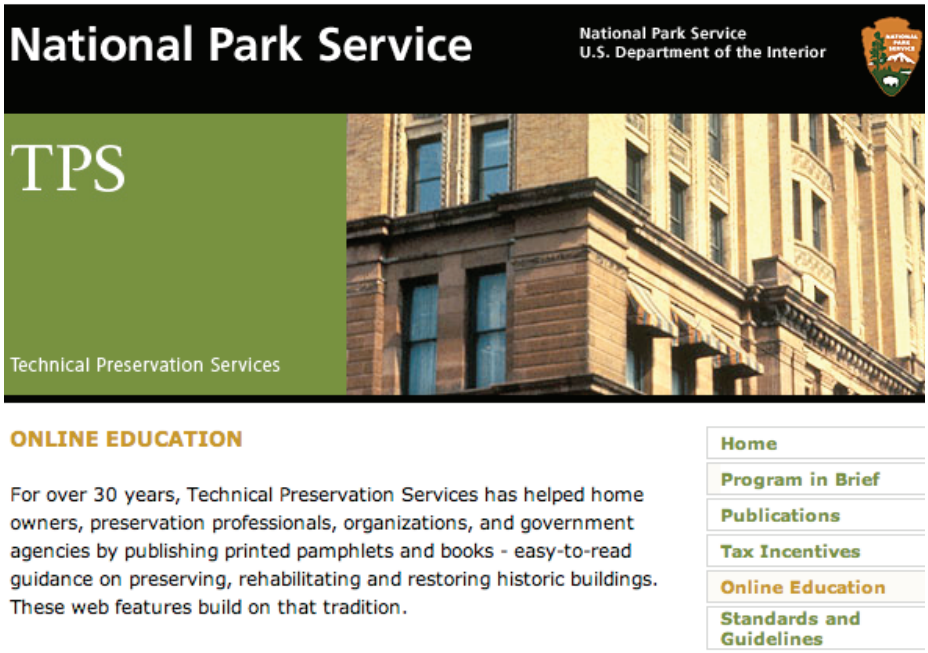
a. **Preservation** focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time.

b. **Rehabilitation** acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character. This approach must not damage or destroy significant materials, features or finishes and requires that any changes be compatible with the building and its context.

c. **Restoration** depicts a property at a particular period of time in its history; reconstructing elements from that period while removing evidence of other periods.

d. **Reconstruction** re-creates vanished or non-surviving portions of a property for interpretive purposes.

e. **Remodeling** is the alteration of a structure in a way that may or may not be sensitive to the preservation of its significant architectural forms and features.



The website of the National Park Service Technical Preservation Services provides many online educational materials to assist you in planning your project approach.

The website for the National Park Service Technical Preservation Services Online Education can be found at:

http://www.nps.gov/history/hps/tps/online_ed.htm

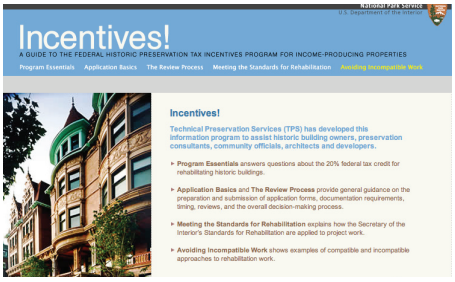
B. EVALUATING YOUR PROPERTY AND YOUR PROJECT, continued

5. Basis for Guidelines

The recommendations found in the *Loudoun County Historic District Guidelines* are based on the *Secretary of Interior's Standards for Rehabilitation* published by the National Park Service (NPS). The *Standards* are very broad by nature since they apply to rehabilitation within historic districts throughout the United States. These guidelines are intended to help interpret the *Standards* for Loudoun County's historic districts.

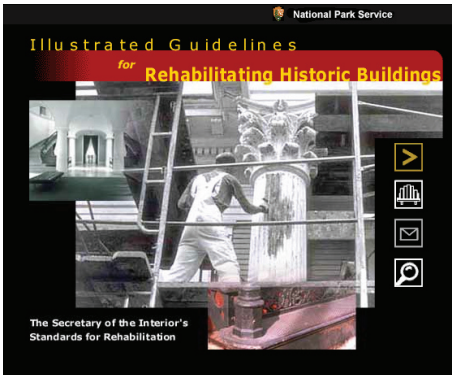
6. Rehabilitation Tax Credits

The owner of a property that contributes to a historic district on the Virginia and/or National registers may be eligible for certain financial incentives including rehabilitation tax credits. When reviewing applications for tax credits, both the NPS and the Virginia Department of Historic Resources (VDHR) use these *Standards* to determine if the rehabilitation of a historic building has been undertaken in a manner that is sensitive to its historic integrity.



For information on the Virginia Rehabilitation Tax Credit Program visit: http://www.dhr.virginia.gov/tax_credits/tax_credit.htm

For information on the Federal Historic Preservation Tax Incentives Program visit: http://www.nps.gov/history/hps/tps/tax/



Illustrated guidelines specific to the Secretary of the Interior's Standards for Rehabilitation can provide general design and technical recommendations during the project planning stage.

http://www.nps.gov/history/hps/tps/tax/rhb/index.htm

The Secretary of Interior's Standards for Rehabilitation

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
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. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
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.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

C. DESIGN REVIEW IN THE HISTORIC DISTRICTS

1. Historic Overlay Zoning

The Historic Overlay zoning for Loudoun County is found in various sections of the Zoning Ordinance.

a. Section 6-300: Historic District Review Committee

This section establishes, provides the authority to the Historic District Review Committee (HDRC), and assigns the general powers and duties of the HDRC.

The HDRC is composed of a minimum of five residents of the County appointed by the Board of Supervisors. Each must have a demonstrated knowledge of and interest in the preservation of historical and architectural landmarks. As citizen members of the county government they must consider each application according to the guidelines for that district as adopted into the ordinance.

The HDRC meets monthly to consider requests for Certificates of Appropriateness (CAPPs) and permits for demolition. Among other HDRC responsibilities listed in Section 6-307 is the review of rezoning, special exceptions, variances, and site plan and subdivision plats in any Historic Overlay district.

b. Section 6-1900: Permits in Historic Districts

The HDRC is given the authority to issue Certificates of Appropriateness (CAPPs) in this section of the zoning ordinance.

An application for a CAPP must be submitted and approved before work may commence on a building or structure, including signs, in a historic district. Work is defined as a building or structure being erected, reconstructed, substantially altered, moved or restored.

This section also requires that the HDRC state as part of its decision those aspects of an application that conform or fail to conform to the adopted guidelines and the conditions that need to be met to bring the application into conformance with the guidelines.

In addition to general architectural compatibility, the HDRC must consider (from Section 6-1905):

i. Exterior architectural features, including signs.

ii. General design, scale and arrangement.

iii. Texture and material.

iv. The relationship of i, ii, iii, above, to other structures and features of the district.

v. The purposes for which the district was created.

vi. The relationship of the size, design and siting of any new or reconstructed structure to the landscape of the district.

vii. The extent to which denial of a Certificate of Appropriateness would constitute a deprivation to the owner of a reasonable use of his property.

viii. The extent to which the proposal adheres to the Historic District Guidelines adopted by the Board of Supervisors, which Guidelines are incorporated herein by reference.

COUNTY OF LOUDOUN
DEPARTMENT OF PLANNING

1 Harrison Street S.E. (P.O. Box 7000), Third Floor, MSC #62
Leesburg, Virginia 20177-7000
703-777-0246

APPLICATION FOR A CERTIFICATE OF APPROPRIATENESS
PLEASE PRINT

Owner _____

Address _____

Phone Number_____ E-mail_____

Representative (contact person)_____

Address _____

Phone Number_____ E-mail_____

Project Location/Address _____

Historic District _____

Property Identification (PIN/Tax ID) _____ Tax Map Number_____

Size of Parcel _____ Election District _____

Brief description of the project_____

_____

The information in this application is accurate to the best of my knowledge. I understand that the County may deny, approve, or conditionally approve that for which I am applying.

Representative's Signature _____ Date_____

Owner: I have read this completed application, understand its intent, and freely consent to its filing. Furthermore, I grant permission to the Departments of Planning and Building and Development and other authorized government agents to enter the property and make such investigations as they deem necessary.

Owner's Signature_____ Date_____

Application received By _____

Date _____ Fee_____ Receipt Number_____

Application Number _____

An application for a Certificate of Appropriateness is available from the Department of Planning or online at:

http://www.loudoun.gov/Default.aspx?tabid=327&fmpath=/Documents%20and%20Forms

Outbuildings used for horticultural or agricultural purposes and do not have a detrimental impact on the historic district may be exempted from review.

While rehabilitation efforts were underway at the Waterford School, the building envelope was protected from further damage or deterioration by securing the openings.

C. DESIGN REVIEW IN THE HISTORIC DISTRICTS

1. Historic Overlay Zoning

b. Section 6-1900: Permits in Historic Districts, continued

There are two exceptions to the above requirements:

i. Section 6-1902 (A) states that work to be done to a bona fide farm building used or to be used for agricultural or horticultural purposes may be exempted from review. This exemption is based on a determination made after review by the Zoning Administrator in conjunction with the application for a zoning permit and with the assistance of the HDRC, if necessary. An exemption will be granted where it is found that requested change would not have a clear and substantial detrimental impact on the character of the historic district.

ii. Section 6-1902 (B) exempts ordinary repairs and maintenance of an exterior feature which does not involve a significant change in design, material, or outer appearance thereof from the requirement of submittal and approval of a Certificate of Appropriateness (CAPP) as determined by the Zoning Administrator with the assistance of the HDRC if necessary.

c. Section 6-1800: Designation of Historic Districts

In addition to the review of Certificates of Appropriateness, permits for demolition, site plans and subdivisions, the HDRC may also propose the establishment of additional Historic Overlay districts or revisions to existing districts (Section 6-307).

The adoption of any new or revised district by the Board of Supervisors is contingent on the agreement of a two-thirds majority of property owners in the district.

Definitions of the types of districts, the establishment of boundaries, and procedures for designation are contained in this section of the ordinance, namely Historic Site Districts (HS), Historic and Cultural Conservation Districts (HCC), Historic Roadway Districts (HR), and Historic Access Corridor Districts (HAC).

d. Section 6-1906 Required Maintenance

This section mandates that all buildings and structures within the historic districts be kept in good repair, structurally sound, and reasonably protected against decay and deterioration in accordance with Volume II Building Maintenance Code, Uniform Statewide Building Code. Failure to do so is a zoning violation. If a building or structure is not brought into conformance after notification of the property owner, the County may take steps to acquire the deteriorating property.

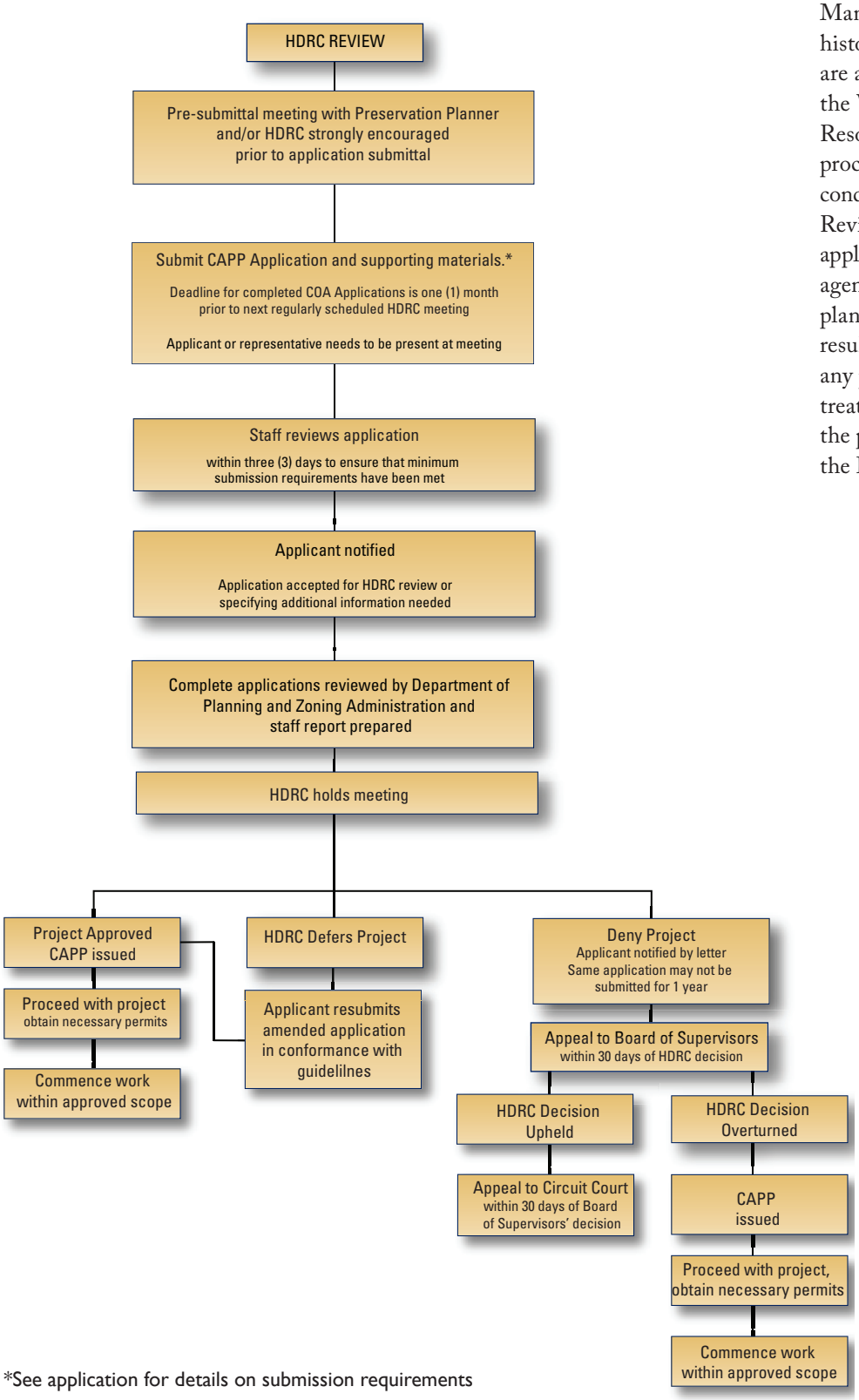
e. Section 4: Division B: Historic Districts

The individual district guidelines are incorporated and adopted as part of the County's zoning ordinance in this section.

f. Underlying Requirements

Consult the Zoning Ordinance to ensure that the basic zoning requirements for the underlying zoning in the historic district are met.

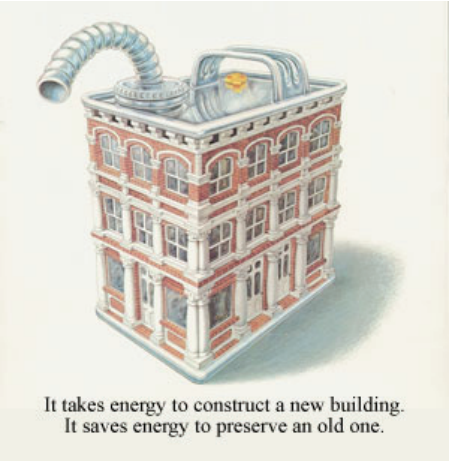
2. HDRC Review Flow Chart



*See application for details on submission requirements

3. VDHR Easement Review

Many properties within the local historic preservation overlay zoning are also protected by easements held by the Virginia Department of Historic Resources (VDHR). The review process is separate from the review conducted by the Historic District Review Committee (HDRC). The applicant should work with both agencies when developing a project plan. If the two review processes result in a different outcome regarding any portion of a project, the approved treatment will be negotiated between the property owner, VDHR and the HDRC.



This rendering was created by the National Trust for Historic Preservation in the 1980s.

D. WHAT DOES IT MEAN TO BE GREEN?

Green design means making informed design choices that will lessen the impact your rehabilitation or new construction project will have on the environment. Reusing an existing building recycles the materials used in its construction, prevents its demolition as well as the resulting addition to the local landfill. Most important, you are saving the embodied energy used in the manufacturing of the construction materials and the labor of its construction.

New building construction can use green design techniques learned from older buildings built before the era of central heating and air-conditioning. These lessons can inform the siting, orientation, materials, and use of natural light among other decisions. The choice of sustainable, recycled, energy-efficient and high-quality materials from local sources can also reduce transportation costs, increase the permanence of the new building and reduce overall environmental impacts.

1. Sustainable Development

The concept of sustainable development looks beyond the single building, to the community, and beyond. The questions that this movement seeks to answer include how to use innovative planning, design, and industrial practices to reduce the impact of the increasing needs of a growing population. Historic preservation provides significant models for sustainable development.

a. Arrangement

A variety of original and current uses are found in the compact arrangement of the buildings of Loudoun County's historically designated hamlets and villages. This historic precedent of mixed-uses provides a model for new sustainable development that is frequently referred to as new urbanism.

A number of the county's original settlements grew from the need of farmers to have grain milled; therefore, the mill area became a center of local commerce. Those who provided the goods and services to the farmers then established residence near their place of business and small villages emerged. This concept is one of the principles of sustainable development.

b. Embodied Energy

It has been said that the greenest building is the one that is never built. The next best option is the preservation of existing buildings. Historic structures are constructed from wood, masonry, glass, and other natural materials that represent embodied energy. Embodied energy is the energy that has already been expended in the harvesting and production of materials, transportation of those materials to the site, and the labor expended in the construction of an existing building.

c. Permanence

Many of these original materials, and the buildings from which they are built, have a degree of permanence not always found in today's building materials and construction. Historic buildings represent the original builder's wish to leave something permanent behind, whether a lasting contribution to the local society or the security of a home for future generations of the family.

Well-maintained historic materials are often repairable – brick or stone may need mortar repair, wood may need to be patched – but have already stood the time test of up to two centuries. Newer materials rarely have such a lifespan and may be less able to be repaired, necessitating yet more replacement.

d. Design

Historic buildings often boast more energy-efficient designs than many modern-day buildings. The earliest buildings in the districts are definite examples of form follows function. Chimneys were large to provide heat and cooking functions. They were located outside of the main walls of the structure to minimize heat gain in the warmer months.

Double-hung sash windows were designed to allow hot air to escape through an opening at the top while cooler air came in through the lower sash. Mature trees and porches shaded structures from summer heat. The siting of these buildings took into account weather, sun, and wind.

e. Real Costs

Modern day buildings are often built of man-made materials that require far more energy consumption throughout the manufacturing, shipping, and construction processes.

Rehabilitation projects often have higher labor costs and lower material costs than new construction. Therefore, more of the money you spend on your project stays in your community rather than going to product manufacturers.

The following *Suggested Guidelines for Green Projects* is not intended to be comprehensive. As more green preservation projects are undertaken, this list will continue to grow.

Today, the Trust's website and publications provide useful information on preservation and sustainability, green home tips, news, research, and case studies.

http://www.preservationnation.org/

D. WHAT DOES IT MEAN TO BE GREEN? continued

2. Green Guidelines for Sites

a. Limit paved surfaces and shade them from direct sun when possible to reduce heat gain.

b. Choose porous paving materials, such as paving bricks, which allow water to drain and reduce runoff.

c. Where driveways are allowed, consider using a ribbon pattern of two strips of paving materials rather than one wide area.

d. Plant trees. Evergreen varieties placed to the north and west of the house will help buffer winter winds. Deciduous trees to the south will help provide shade in summer without preventing the warming rays from providing passive heating in the winter. Historic landscape photos will often reveal these patterns and can provide a plan for plantings.

e. Use drought-tolerant native plants to reduce landscape water usage.

f. Capture rainwater runoff from gutters and collect in grey water cistern to use for watering site plantings.

g. Limit use of outdoor lighting to areas where and when activity occurs and use the minimum wattage necessary. Lighting should never shine onto a neighboring property or into the night sky.

3. Green Guidelines for Existing Structures

Historic elements, such as plantings, porches, transoms, shutters, cupolas, and awnings, play a role in energy conservation and should be retained and maintained.

By understanding the way in which your house loses heat, you may be able to reduce your energy costs without a large investment of time or money.

Listed below are a number of projects to reduce heat loss that can easily be completed by most homeowners and result in significant energy savings.

a. The patterns of openings for structures built before the invention of air-conditioning provided for cooling by cross-ventilation. Take advantage of this pattern and use fans and dehumidifiers to reduce the need for air-conditioning.

b. Retain and make operable existing wood shutters to reduce heat entering the structures and to reduce energy bills.

c. Keep double-hung wooden sash windows and transoms operable to provide airflow and reduce the need for air conditioning.

   i. Install sash locks on the meeting rail, where the upper and lower sash meet, to assure a tight fit between the upper and lower sashes.

d. Restore and retain original porches in their historical configurations to provide shade.

e. Where historically appropriate, use lighter exterior paint colors. See *Chapter 6: Guidelines for Paint* for period-appropriate paint colors.

f. Weatherstrip, caulk and paint exterior doors regularly to reduce drafts. Heavy solid wood doors and windows are good insulators if they fit tightly and are weatherized.

   i. Install weatherstripping of spring bronze, felt, or new vinyl beading around the edges of windows and doorways.

   ii. Metal strips/plastic spring strips can be installed on rails, and when space allows, between sash and jamb.

   iii. Caulk joints/seams around the edges of window frames to avoid moisture penetration.

   iv. Replace deteriorated glazing putty and repaint to create a weathertight seal.

g. Insulate any attic, basement, and crawl spaces. Most heat loss occurs through the attic, not through doors and windows. Adding 3.5 inches of insulation to the attic has three times the impact of replacing single pane windows with the most energy-efficient replacement windows.

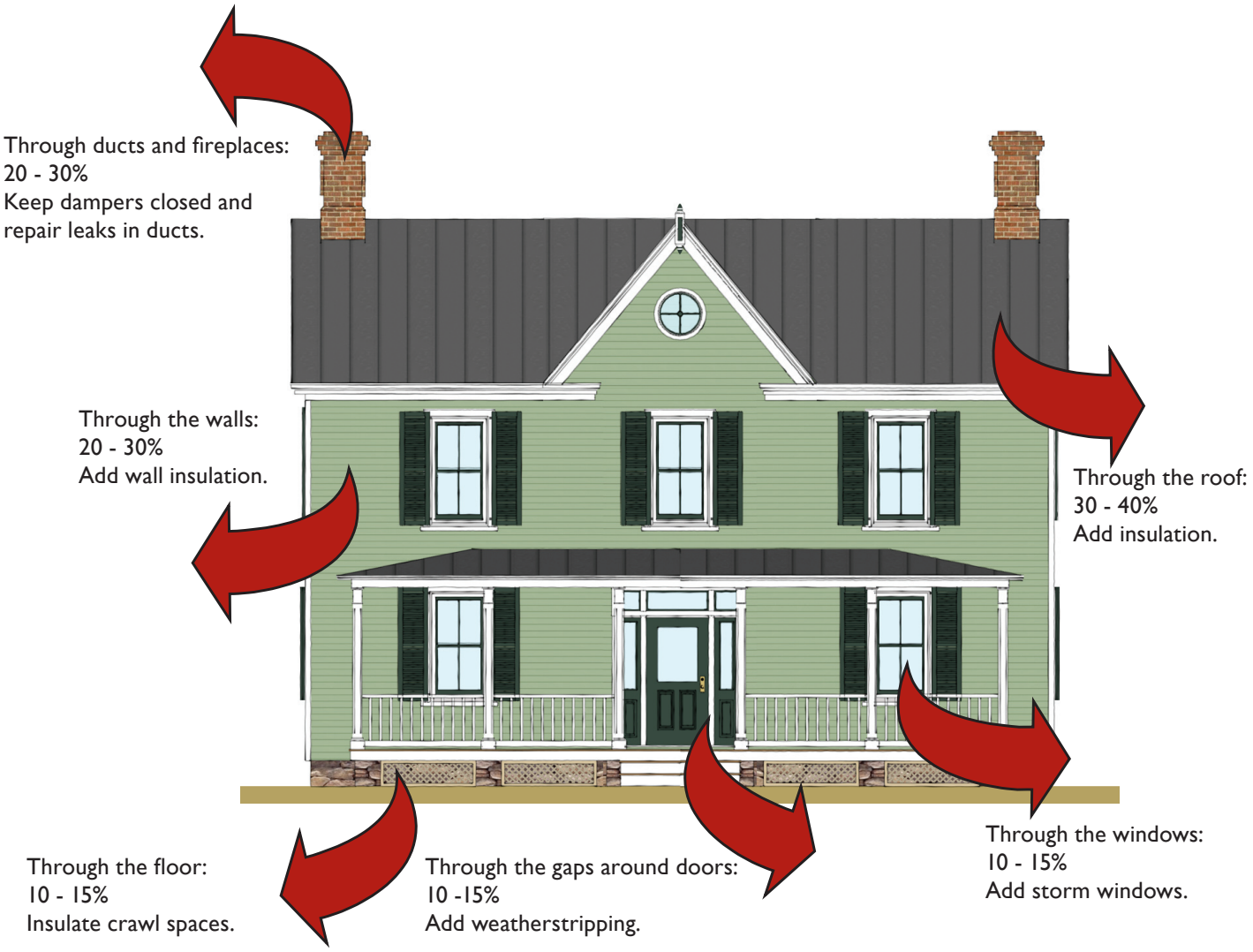
h. Keep fireplace dampers closed when not in use.

i. When replacement of an element is necessary, determine if a recycled part can be located or if the new item can be made from a sustainable resource.

j. Check inventory at second-hand and salvage companies for period-appropriate hardware, lighting and other items.

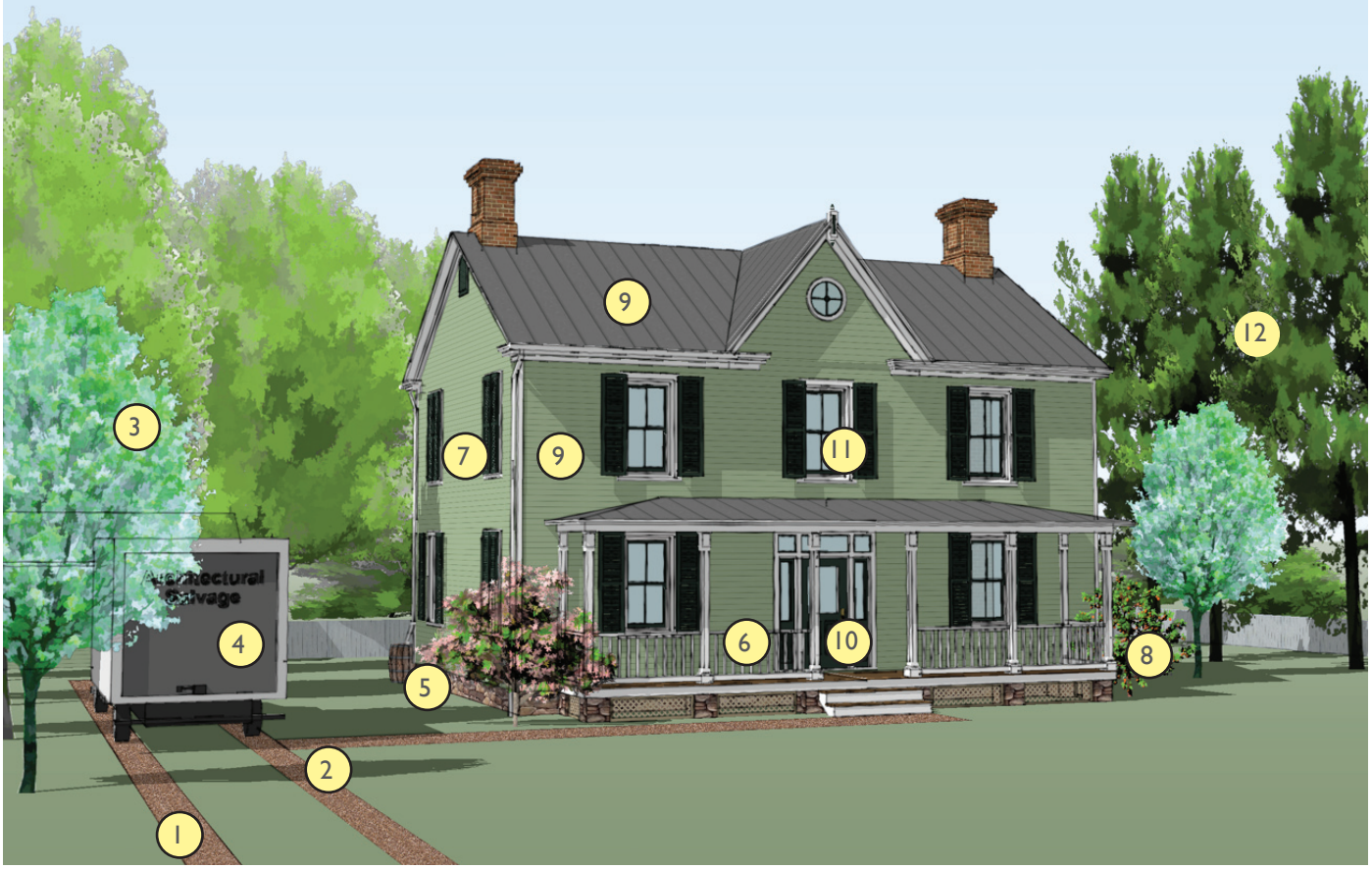
k. Choose paint that is formulated with low volatile organic compounds (VOC).

l. Ask your local utility company about performing an energy audit.



This graphic shows the percentage range of heat loss in different areas of your houses, with general suggestions to reduce that loss.

D. WHAT DOES IT MEAN TO BE GREEN? continued



This graphic illustrates a number of green building and site suggestions for new construction.

1. Pervious paving
2. Shaded paved areas
3. Deciduous trees to block summer sun
4. Find sources for recycled house elements
5. Rain barrel to collect gray water
6. Porch to protect house from sun and wind
7. Operable shutters to block sun and wind
8. Drought-tolerant native plants
9. Light colored roof and walls
10. Openings aligned for cross-ventilation
11. Operable windows and transoms
12. Evergreen trees to shield winter winds

4. Green Guidelines for New Construction in Historic Districts

a. Site

i. Refer to traditional development patterns of farms, hamlets and villages when planning new construction.

ii. Follow compact development patterns to reduce impact on natural resources.

iii. Work with the existing contours of the landscape.

iv. Preserve existing mature indigenous trees.

v. Site new buildings to preserve views and orient to appropriate sun and wind directionals where possible.

vi. Limit use of outdoor lighting to areas where and when activity occurs and use the minimum wattage necessary. Lighting should never shine onto a neighboring property or into the night sky.

b. Building

i. Consider the use of historic building techniques and features in new construction, including deep overhangs and porches, transoms, shutters, and double-hung sash windows.

ii. Use local materials to harmonize with existing construction and landscape.

iii. Think about the long-term consequences of design choices. Are they the most sustainable choices? Will the building and its elements last for one hundred years? Do they allow for flexibility and repair in the future?

iv. Consider the use of reflective roof materials to minimize heat gain.

v. In non-visible locations, consider the use of solar shingles to reduce energy consumption.

vi. Use materials that have a high recycled content or other green materials.

vii. Consider the use of structural insulated panels (SIPs) as an alternative to conventional framing for floors, walls and roofs. These panels provide insulation sandwiched between the interior and exterior sheathing materials.

viii. Choose paint that is formulated with low volatile organic compounds (VOC).

ix. Programmable thermostats, high-efficiency appliances, tankless water heaters, geothermal heating, additional insulation, and solar and passive solar energy solutions can all contribute to an energy efficient new building.

The U.S. Green Building Council is a non-profit organization that has created a Green Building Rating System called Leadership in Energy and Environmental Design. Buildings are rated on their site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

The websites below offer information for existing homes and new construction.

http://www.usgbc.org/

http://www.greenhomeguide.org/