

TOWN OF EXETER HISTORIC DISTRICTS

Guidelines Introduction



BENEFITS OF LOCAL DESIGNATION

The designation of local historic districts and landmarks has been found to:

- Increase neighborhood stability and property values
- Preserve the physical history of the area
- Promote an appreciation of the physical environment
- Foster community pride and self-image by creating a unique sense of place and local identity
- Increase the awareness and appreciation of local history
- Increase tourism
- Attract potential customers to businesses
- Create local construction jobs employing skilled tradesmen

These *Guidelines* were developed in conjunction with the Town of Exeter's Historic District Commission (HDC) and the Building Department. Please review this information during the early stages of planning a project. Familiarity with this material can assist in moving a project forward, saving both time and money. The Building Department is available for informal meetings with potential applicants who are considering improvements to their properties.

Guidelines and application information are available at the Town Office and on the Commission's website at exeternh.gov/bcc/historic-district-commission. For more information, to clarify whether a proposed project requires HDC review, or to obtain permit applications, please call the Building Department at (603) 773-6112.

WHY IS HISTORIC PRESERVATION IMPORTANT IN EXETER?

The Town of Exeter recognizes that the character and quality of life enjoyed by its citizens depend in great measure upon the Town's rich architectural heritage and the importance of the natural and designed landscapes in our community. This historical, cultural, archaeological, social and economic heritage is entrusted to each generation, enriched and passed on to future generations. The Historic District Commission (HDC) of Exeter is charged with safeguarding this heritage as represented by the Town's historical and architectural value.

EXETER'S HISTORIC PROPERTIES

The Town of Exeter currently regulates three locally designated Historic Districts:

- Front Street Historic District Established 1971
- Downtown Historic District Established 1978
- High Street Historic District Established 2006

The Town of Exeter regulates properties in current and future locally designated Historic Districts, as well as the proposed full or partial demolitions of buildings or structures over 50 years old.

In addition, The Town of Exeter also has several individually designated National Register properties and currently two National Register Historic Districts:

- Front Street Historic District Listed 1973
- Exeter Waterfront Historic District Listed 1980



There are several notable institutional buildings that are located within the locally designated historic districts including Exeter Town Hall.

HISTORIC DESIGNATION & LISTING

Definitions

- Historic Resource: An individual building, structure, site, object or district that has been determined to have historical significance or associations and whose distinctive character conveys a unique architectural and cultural heritage.
- Historic District: A defined area that contains concentrations of historic resources. A district can include as few as one historic resource or hundreds of resources.

Local Designation

Local designation of a historic property or district provides a tool for local communities to determine what is architecturally and historically important to their community and a mechanism for the regulation of proposed changes to those properties.

The National Register of Historic Places

The National Register of Historic Places is the United States government's official list of districts, sites, buildings, structures and objects identified as worthy of preservation. The National Register is administered by the National Park Service, a division of the Department of the Interior.

Listing in the National Register does not eliminate or restrict property rights of individual owners. Projects involving federal or state permits, licenses or funding are reviewed for their potential effects on significant historic properties, including those listed in the National Register. Having a property listed on the National Register could make its owners eligible for federal and state tax credits for expenses incurred rehabilitating an income-producing property. National Register information is available from the New Hampshire Division of Historical Resources. (Refer to *Preservation Organizations*, page 01-11.)

PRESERVATION ASSISTANCE PROGRAMS

There are federal and state incentive programs available for historic properties. The submission and review requirements are rigorous and it is highly recommended that applicants contact the applicable agency at the early planning stages of a potential project.

The Federal Historic Preservation Tax Incentive Program rewards private investment in rehabilitating historic incomeproducing properties such as offices, rental housing and retail stores. The Program, established by the Tax Reform Act of 1986, is jointly administered by the U.S. Department of the Treasury and the U.S. Department of the Interior's National Park Service. Owner-occupied single-family residences are not eligible for the program. If eligible, up to 20 cents on every dollar spent on qualified rehabilitation work (including most architectural and engineering fees) would be available as a credit against federal income taxes. The 20% tax credit is available to buildings that are listed in the National Register of Historic Places, either individually or as a contributing building in a National Register Historic District, or as a contributing building within a local historic district that has been certified by the Department of the Interior. To be eligible for the 20% tax credit, project work must be certified as meeting The Secretary of the Interior's Standards for Rehabilitation. (Refer to Preservation Resources, page 01-11.)

Preservation Easements are a tool often used to insure the preservation of the character defining features of a property for the public's benefit. The New Hampshire Preservation Alliance and Historic New England maintain easement programs to protect historic resources. The extent of the protection of the property is dependent on the strength of the easement. Some easements protect just the façade of a building. Other easements protect the larger preservation values including but not limited to the exterior and interior architectural features, materials, landscape features, outbuildings, fences and archeological resources of a property.

The Community Revitalization Tax Relief Incentive (RSA 79E) has been adopted by Town of Exter to encourage revitalization of underutilized buildings. Program information is available at www.exeternh.gov.

SUSTAINABLE BENEFITS OF PRESERVATION

Historic buildings are intrinsically "green," as reusing an existing building has substantially lower environmental impact than building a new one. Preservation and rehabilitation minimize the wasteful loss of materials while maintaining a distinctive sense of place. Sustainable benefits of preservation include:

- The historic building or structure already exists, and the energy required to fabricate the lumber, bricks, windows and doors was expended long ago
- New construction often includes demolition of an existing building (construction waste comprises approximately 25% to 30% of landfills), and the fabrication of new construction materials creates additional waste, while preservation of an existing building conserves landfill space
- The most appropriate materials for the majority of preservation projects are often historic materials rather than non-biodegradable manufactured products, such as vinyl and/or plastics

PRESERVATION REGULATORY REVIEW

To maintain the character of properties within the Historic Districts, most proposed exterior changes require review and the issuance of a Certificate of Approval (COA) from the HDC prior to commencing work, or if deemed to be an exempt activity or a minor application by Building Department Staff, the approval process can be addressed administratively. The type of work requiring a COA includes:

- Exterior Alteration Installation, modification and/or removal of materials or features from sites, buildings or structures including sign modification or installation
- New Construction New building, structure or site feature and/or expansion of an existing building, structure or site feature
- Demolition Complete or partial removal of a building, structure or site feature
- Relocation Moving of a building, structure or site feature

Certificate of Approval applications are reviewed by the HDC at their monthly meetings. During their reviews, the HDC references the criteria set forth in the Historic Preservation sections of the Town's Zoning Ordinance. Review by the HDC ensures that any proposed changes will be compatible with the character and design of the individual property and/or Historic District.

The process of applying for a COA requires the project representative to provide sufficient information on the HDC's application form and to include drawings, sketches, photographs, a survey, product brochures or samples for certain building features that will be modified. The applicant is encouraged to consult with Building Department staff to ensure that all the information is included in the application. Once the application has been determined to be complete, it will be placed on the HDC agenda. The applicant or a project representative should attend the HDC meeting for COA reviews to answer any questions the HDC may have regarding the application, or the application could be tabled pending clarification and/or the submission of additional information as requested by the HDC.

DEMOLITION REVIEW COMMITTEE

The Demolition Committee is a subcommittee of the Exeter Heritage Commission charged with the review of the proposed demolition of:

- Any building or structure within the Town limits that is more than 50 years old (with the exception of manufactured homes)
- Any building or structure that is listed or eligible for the National Register of Historic Places
- Any building or structure within a locally established Historic District

If a building or structure is found to be historically significant, the Demolition Review Committee will work with the owner to encourage alternatives to demolition. If alternatives are not agreed upon, the Demolition Review Committee will photographically document the building or structure.

HISTORIC DISTRICT COMMISSION

Established in 1970, the HDC has oversight of the Town's preservation activities and regulatory review within the bounds of the Exeter Historic Districts. The HDC is comprised of seven members and four alternates, including a Selectman and a member of the Planning Board. Although the HDC's primary responsibility is to conduct to review applications for COAs, the HDC also provides recommendations to the Town Council regarding historic preservation activities in the Town including the documentation of historically designated properties.

The HDC can take one of four actions following the review of a COA application:

- Approval as Submitted The Certificate for Approval will be issued
- Approval with Conditions A Certificate for Approval will be issued pending review for compliance of required conditions
- Continued The applicant provides additional information or clarification as requested by the HDC
- Denial It is determined that the project does not meet the requirements for the granting of a COA - The applicant can work with Building Department Staff to bring the project into compliance with the ordinance using the *Guidelines* and resubmit to the HDC for re-review or appeal to the Zoning Board of Adjustment

WORKING WITHOUT A COA

The Building Department will inspect all work for compliance with an approved Certificate of Approval (COA). If any changes are proposed after the issuance of a COA, please contact the Building Department at (603) 773-6112 for additional required reviews. Work completed without an approved COA is subject to possible fines, removal and restoration of the site, building or structure to its appearance prior to the violation.

APPROVALS REQUIRED FOR WORK

HDC review and approval is triggered by the application for a building permit. This includes the replacement of signs, awnings, windows, doors and roofs. HDC approval is necessary but may not be sufficient for the granting of a building permit. Each property is subject to review for compliance with applicable zoning, building and safety ordinances and codes. The property owner is responsible obtaining all necessary approvals prior to commencing with work.

HERITAGE COMMISSION

The Exeter Heritage Commission is advisory to other local boards and commissions; conducts inventories; educates the public on matters relating to historic preservation; provides information on historical resources; and serves as a resource for revitalization efforts

DESIGN OF ALTERATIONS

In balancing the desire for a change to a historic property with regard to the historic integrity, the HDC encourages property owners to retain as much historic building fabric as possible. As such, the following guide can be used, listed in preferential order:

- 1. Maintenance
- 2. Repair and In-Kind Replacement
- 3. Alterations and Renovations
- 4. Adaptive Reuse
- 5. Additions and New Constructions

If demolition is considered, property owners should refer to the *Demolition Review Committee* process (page 01-3). Demolition of designated historic buildings is rarely appropriate.



The symmetry of this twin residence is one of its character defining features that should be preserved.

GUIDELINES FOR HDC DECISIONS FOR ALTERATIONS TO EXISTING BUILDINGS

When reviewing a proposed project for alteration to a historic building, the HDC's review is guided by principles contained in *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, and more specifically, *The Standards for Rehabilitation*. *The Standards for Rehabilitation* provide property owners and tenants common-sense guidelines to allow sensitive contemporary uses for their sites while retaining their architectural and cultural heritage. In reviewing projects, the HDC encourages sensitive rehabilitation involving the least amount of intervention or change as identified in the following guidelines:

- Identify, retain and preserve the overall form, materials and details that are important in defining the architectural and historical character of the building and site.
- Protect and maintain historic materials and features.
 This involves protection from other work that may occur in proximity to the historic materials, and also protection through regular maintenance. A regular program of protection and maintenance usually involves the least degree of intervention, and can prevent or postpone extensive and costly work.

- Repair rather than replace deteriorated historic
 materials and features. Repairs maintain the building in
 its current condition while making it weather-resistant
 and structurally sound. Repairs should involve the least
 intervention possible, concentrating specifically on areas
 of deterioration. When repair is not possible, the HDC
 encourages replacement in-kind, reproducing by new
 construction the original feature exactly, including the
 original material, finish, detailing and texture.
- Replace missing or deteriorated historic materials and features in-kind when the extent of deterioration precludes repair. Similar to repair, the preferred approach is to replace the entire feature in-kind to match the original material, finish, detailing and texture. Since this in not always technically or financially feasible, substitute materials are sometimes acceptable when they convey the appearance and finish of the original feature.
- Reconstruct missing historical features if adequate historical, pictorial and physical documentation exists so that the feature may be accurately reproduced. The addition of features from other historic buildings or addition of historical elements for which there is no documentation is not appropriate.
- Alterations and additions are sometimes needed to ensure the continued use of a building. An alteration involves returning a building to a useful condition while saving those parts that represent its historical, architectural or cultural significance. It is important that alterations do not radically alter, obscure or destroy character-defining spaces, materials, features or finishes. An addition is new construction at the exterior of an existing building and should be carefully considered. New additions should be differentiated but also compatible with the historic building in terms of size, mass, form, fenestration, material, detailing and style, and should be constructed at a less visible side or rear elevation, so that the character-defining features are not radically obscured, damaged or destroyed.

TOWN OF EXETER - DESIGN GUIDELINES

The following *Guidelines* were prepared in this project:

- 01 Guidelines Introduction
- 02 Guidelines for Roofing
- 03 Guidelines for Exterior Woodwork
- 04 Guidelines for Masonry & Stucco
- 05 Guidelines for Windows & Doors
- 06 Guidelines for Site Elements
- 07 Guidelines for New Construction & Additions
- 08 Guidelines for Commercial Buildings

Further information is available at the Building Department and on Exeter's web site at www.exeternh.gov. These *Guidelines* serve to cover the topics most typically addressed by the HDC. Any work under the jurisdiction of the HDC that is not specifically covered in these *Guidelines* is subject to HDC review and approval.



The replacement of deteriorated roofing is potentially dangerous work that often requires the access of workers and materials by ladders. Consideration should be given to hiring a professional for any work that is unfamiliar or potentially unsafe.

SAFETY PRECAUTIONS

Repair and maintenance of a building can potentially be dangerous work. It is recommended that all manufacturers' recommendations be followed and appropriate safety precautions with ladders, tools, materials and processes be taken. Property owners should consult a professional for work that is unfamiliar or potentially unsafe.

Work on older buildings can uncover hazardous materials such as asbestos, lead, radon and mold. Property owners should familiarize themselves with these materials and their building's conditions prior to beginning work. Property owners who are unfamiliar with how to properly handle or work around potentially hazardous materials are strongly encouraged to consult with a trained or certified contractor.

Information about common hazardous materials can be found on national and state organizations web sites, including:

Asbestos

US Environmental Protection Agency Hotline (800) 368-5888 www.epa.gov/asbestos

Lead

National Lead Information Clearinghouse (800) 424-LEAD www.epa.gov/lead

Radon

The National Safety Council's Radon Hotline (800) SOS-RADON www.epa.gov/radon

Mold

Indoor Air Quality Information Clearinghouse: (800) 483-4318 www.epa.gov/iag/molds/index

BUILDING CODES

All construction projects in the Town of Exeter must comply with the Zoning Ordinances as well as the International Building and Residential Codes as amended. The intent of the Ordinance and Code is to protect the public health, safety and welfare of citizens against the hazards of inadequate, defective or unsafe conditions. The Code addresses the interior and exterior conditions of buildings and structures, building systems and the surrounding property.

For specific information regarding the applicable ordinances and code sections for a project, please contact the Building Department at (603) 773-6112. Applicants are also welcome to meet with an Inspector who can assist with permit applications and regulatory questions.



All proposed exterior alterations, including the modification or installation of signage and awnings, is subject to HDC review and requires a Certificate of Approval (COA).

HDC REVIEW

It is important to remember that all exterior changes to a building or structure within the boundaries of a locally designated Historic District are required to receive a prior approval from the HDC. (Refer to *Preservation Regulatory Review* on page 01-3 or contact the Building Department at (603) 773-6112 for review requirements for proposed work.)

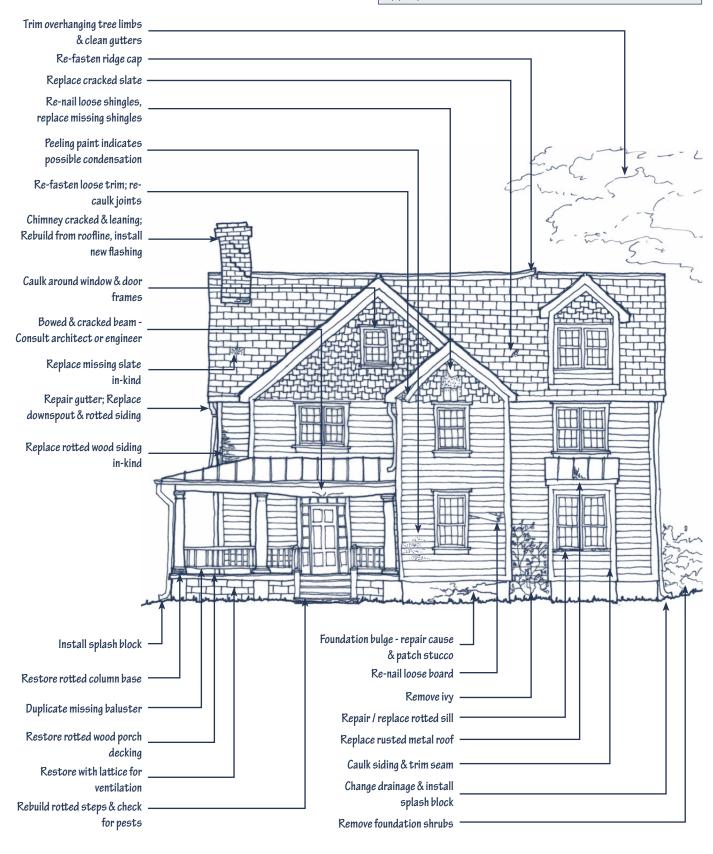
COST VS. VALUE-ADDED

While some of the recommendations in these *Guidelines* do not represent the least expensive options, the HDC strongly believes that selecting a better quality option will be less costly in the long-term.

An immediate benefit is that using traditional materials and construction methods tends to be more historically appropriate and sustainable. (Refer to *Benefits of Historic Preservation*, page 01-2.) Another benefit is that traditional materials generally have a longer life-cycle because they are appropriate for the local climate, requiring less frequent replacement. Additionally, traditional materials tend to reduce associated landfill waste and replacement costs, as well as potentially increasing a property's value associated with authentic, higher quality construction.

TYPICAL BUILDING MAINTENANCE NEEDS

General: Scrape all loose paint; sand to smooth surface; prime bare wood and metal; re-paint with historically appropriate colors



BUILDING ENVELOPE DETERIORATION

The exterior envelope of a building is made up of various components that typically include roofing, walls, windows and doors. Each of these building components can be executed in various materials within the same building envelope, such as a combination of shingle roofing at sloped surfaces and rolled roofing at flat surfaces, with metal flashing at the intersections.

These components of various materials act together as a system to protect the interior from exterior environmental extremes. Some of the environmental influences affecting the exterior building envelope include:

- Moisture including rain, snow, ice, humidity and groundwater
- Wind
- Sunlight
- Temperature variations
- Atmospheric chemicals and acid rain
- · Insects, birds and rodents
- · Vegetation, molds, algae and fungi

All building materials, new or old, will deteriorate over time. Each of the environmental influences listed above, individually and in combination, has the potential to react differently with the materials that comprise a building's exterior envelope and cause deterioration. The potential reactions are further complicated by the way the materials are installed and joined together, and their relative locations. However, by implementing a regular maintenance and repair program, the rate of deterioration can be dramatically slowed, allowing the Town's historic buildings to last for centuries.

MAINTENANCE IS PRESERVATION

Regular maintenance helps to preserve buildings and property, protect real estate values and investments, and keeps Exeter an attractive place to live, work and visit. Lack of regular upkeep can result in accelerated deterioration of building elements and features. In the case of historic buildings, these features often represent character defining elements that are difficult and costly to replace. Long-term lack of maintenance can impact a building's structure, resulting in expensive repairs.

It is prudent to regularly inspect buildings, structures and landscape elements to identify potential problems. If problems are detected early, minor maintenance may not only improve a property's overall appearance and value, but also can prevent or postpone extensive and costly future repairs. Regular maintenance can include a variety of tasks such as cleaning gutters and downspouts, and painting of exterior woodwork. It is important to keep in mind that if completed in a timely fashion, regular maintenance can prolong the life of a historic building or structure, while enhancing its long term value, authenticity and cultural value.

EXTERIOR PAINT AS MAINTENANCE

Paint is one of the most common ways to protect exterior materials from the elements, particularly wood without natural or chemical preservatives, and metals that would otherwise rust. When the painted surface has been compromised, moisture and the elements can infiltrate the underlying material and substrate, accelerating deterioration. Exterior paint provides a layer of protection to a building by limiting moisture infiltration and damage from the sun, pests and other forms of deterioration. Exterior woodwork without natural or chemical preservatives is susceptible to moisture-related wood deterioration of the exterior envelope and underlying framing. Many metals are susceptible to rust. Although paint is an important protective layer that improves the longevity of a historic building element, it must be viewed as a temporary barrier that is subject to deterioration through cyclical temperature and humidity changes. It requires re-application to maintain its shielding properties.

In addition to providing a protective layer, paint colors can highlight a building's architectural features and style, visually tie parts of a building together, and reflect personal taste. A building's style, period of construction, materials and setting can all help identify appropriate paint colors. (A list of historic exterior color selections for buildings styles located in historic districts is available on the Town's web site at www.exeternh.gov.)

In general, exterior surfaces should be repainted every 5 to 8 years, with intermediate touch-ups of high traffic, worn or deteriorated areas. If a building requires frequent repainting, it might be an indication of another problem including moisture, inadequate surface preparation and non-compatible paint.

Encapsulating paints can be problematic as they can trap moisture in woodwork and promote rot. These are often referred to as "liquid siding," "liquid stucco" or "liquid ceramic coatings." Painting of previously unpainted masonry is strongly discouraged. (Refer to Removing Paint from Masonry, Guidelines for Masonry & Stucco, page 04-7.)

PROPERTY MAINTENANCE

Properties should be maintained in a manner that allows them to be safe and contribute to the Town culturally and economically. The Town and the HDC encourages the regular maintenance of any building or structure to prevent a hazardous or unsafe condition from occurring. Potential examples of hazardous or unsafe conditions include cases in which:

- All or part of the building may fall and injure people or property
- Structural elements are deteriorated such that they can no longer safely carry imposed loads
- A defect or condition makes the building susceptible to water damage, including unmaintained paint on exterior wood surfaces and openings in roofs or walls



An example of an adaptive reuse project is the conversion of a firehouse into a restaurant. If considering a change of use for a building, it is important to have a clear understanding of which uses are permitted under the Zoning Ordinance for a particular parcel, and those that would require a variance. In addition, other modifications, such as the installation of an accessible ramp, may be required.

ALTERATIONS & RENOVATIONS

Alterations and renovations are sometimes needed to ensure the continued use of a building, but have the potential to alter the character of historic properties. When considering alterations or renovations, careful attention should be given to the original building and its relationship to the alteration or renovation.

When considering changes to historic properties, applicants should strive to:

- Identify, retain and preserve the character defining features of the historic building
- Minimize alteration to the original design, materials and features
- Use design elements, materials and techniques that are compatible to the historic building and setting
- Maintain the appropriate historic contextual setting



HDC review is required for all alterations of exterior building materials including roofing, siding and windows. In addition the HDC reviews any proposed structure, including garages, fences and walls at properties within the locally designated Historic Districts.

ADAPTIVE REUSE

Similar to alterations and renovations, adaptive reuse projects might be necessary to use a building for a different purpose from which it is currently or was originally designed, if permitted under the Exeter Zoning Ordinance. Similar to alterations or renovations, great care should be given to the original building and its relationship to the alteration or renovation. In addition, careful attention should be taken with required alterations such as the modification or addition of window and door openings to accommodate the new use.

Examples of Adaptive Reuse:

- Conversion of a house to multi-family residential or offices
- Conversion of industrial/commercial buildings into housing
- Conversion of institutional buildings into commercial space
- Conversion of mill buildings into office space or residences

Benefits of Adaptive Reuse:

- Retention of historic character and high quality historic materials and craftsmanship
- Promotes stability of ownership and occupancy of historic resources
- Potential cost savings versus new construction
- Maintains and utilizes the established neighborhood and existing infrastructure

REPAIR VS. REPLACEMENT

When it is no longer feasible to maintain a historic feature due to its condition, repairs or replacement in-kind may be necessary. Repairs maintain the building in its current condition while making it weather-resistant and structurally sound, concentrating specifically on areas of deterioration. When repair is not possible, the HDC encourages replacement in-kind. Similar to a regular maintenance program, these activities can prevent or postpone extensive and costly future repairs.

In order of preference, the HDC encourages the following approach:

- Non-intrusive repairs, focused at deteriorated areas, stabilizing and protecting the building's important materials and features
- When repair is not possible, replacement in-kind to the greatest extent possible, reproducing by new construction the original feature exactly, matching the original material, size, scale, finish, profile, detailing and texture
- **3.** When replacement in-kind is not possible, the use of compatible materials and techniques that convey an appearance similar to the original historic features, and the use of materials similar in design, color, texture, finish and visual quality to the historic elements



This 2-story side elevation addition is subordinate and diminutive in scale when compared to the side gable roofed main block. It is stepped back from the front elevation, and utilizes similar but larger windows, trim and siding. It is compatible but clearly identifiable as an addition to the historic building.

ADDITIONS

Additions to a building within a Historic District can dramatically alter the appearance of the individual property, the District and the surrounding landscapes. Exact reproduction of historic buildings is discouraged, while both traditional or contemporary design compatible to the context of the historic resources and their surroundings is encouraged. Because of the sensitivity of the area, the property owner should take great care when proposing an addition to a designated property.

When considering an addition to a historic building or structure, applicants should:

- Preserve the cohesive ambiance of historic resources with compatible, sympathetic and contemporary construction
- Use compatible siting, proportion, scale, form, materials, fenestration, roof configuration, details and finishes to the existing building
- Construct additions at secondary elevations wherever possible, subordinate to the historic building, and compatible with the design of the property and neighborhood
- Construct additions so that the historic building fabric is not radically changed, obscured, damaged or destroyed
- Reference the Guidelines for New Construction & Additions

NEW CONSTRUCTION

More dramatically than additions, new construction within a Historic District can dramatically alter the appearance of the individual property, the District and the surrounding landscapes. All new construction should be compatible within the property's surrounding context. As a result, those areas that are highly cohesive with strong historical integrity, will likely be more limited that those areas with a variety of building types, scales, materials and designs such as those found in some of Exeter's commercial corridors.

When considering a new construction or development project, exact reproduction of historic buildings is discouraged, while both traditional design or contemporary design compatible to the context of the historic resources and their surroundings is encouraged. Because of the sensitivity of the area, the property owner should take great care when proposing new construction or a new development within a Historic District.

When considering new construction within a locally designated historic district or historic context, applicants should:

- Preserve the cohesive ambiance of historic resources with compatible, sympathetic and contemporary construction
- Use compatible siting, proportion, scale, form, materials, fenestration, roof configuration, details and finishes
- Reference the Guidelines for New Construction & Additions



This house is sited in a manner similar to its neighbors. The multiple gable and hipped roof break down the overall mass and scale to be similar to its neighbors. The fenestration pattern includes punched window openings, avoiding a front-facing garage door.

RESEARCHING HISTORIC PROPERTIES

Property owners seeking information regarding the history of their property can consult with the Exeter Historical Society as well as reference historic property designation information, town atlases, Town Directories and potentially historic photographs. (Refer to *Preservation Organizations*, page 01-11.)

FREQUENTLY ASKED QUESTIONS

Q: Where should I begin the process?

A: It is often helpful to begin by understanding what makes your property historically or architecturally significant (see below.) Contact the Town's Building Department at (603) 773-6112 for a review of your property's significance. Obtain the *Guidelines* section applicable to your proposed project and consider whether the proposed changes are appropriate for the property.

Q: How can I find out about the history of my neighborhood or property?

A: The Exeter Historical Society is the best resources for local history, (refer to page 01-11), including historic photographs, National Register Nominations and survey forms on historic buildings. Links to information on local history are also available on the Town of Exeter's website. Additional information regarding historic properties is available from the New Hampshire Division of Historical Resources, and on its website. There are also numerous reference organizations and resources, a few of which are listed on page 01-11.

Q: How do I make it more likely that my project is approved?

A: It is helpful to have an understanding of what makes your property architecturally or culturally significant when considering a project. This will allow you to make informed decisions about the proposed project with an understanding of some of the issues considered by the HDC. Each section of the *Guidelines* outlines what is and is not likely to be approved by the HDC. If considering a complex application, particularly those that include an addition or new construction, it is often helpful to informally consult with the HDC in a conceptual review prior to submission of a Certificate of Approval (COA) application. The conceptual review process can provide feedback to guide an application towards a design that may be approved by the HDC prior to expending a lot of time and money in the development of detailed plans or Construction Documents.

Q: Is the review process expensive? Do I need to hire an outside professional?

A: The HDC does not charge a fee for a reviews; however, other City departments may assess fees, such as notification fees, based on the nature of the project. Carefully review of the applicable Guidelines and the application requirements for an approval prior to hiring a design professional or contractor can assist in the early planning stages of your project. If not required by Code to receive a building permit, you are welcome to submit applications for work without the assistance of a design professional. However, for complex proposals or those that requires the submission of scaled drawings, consultation with a professional may be required and may expedite the review process. If you are retaining the services of a professional, it is helpful to work with architects, contractors and others familiar with the requirements of working with the HDC. Before submitting your application, confirm that it is complete with the Building Department.

Q: I am planning a complex project. When is the best time to talk to the HDC?

A: If your project is complex or requires review from multiple land use Commissions and Boards, the best time to talk to the HDC is as early in the project as possible, before you invest significant time and money into the design process. This initial informal informational review can help move a project more quickly through the review process. Please contact the Town's Building Department at (603) 773-6112 for an appointment.

Q: Is there a way to expedite the review process?

A: It is important to thoroughly complete the application and submit all required materials to the HDC for review. It is recommended that you contact the Town's Building Department directly to understand what submission materials are required for your project; whether Commission review is required or a conceptual review is recommended; and the specific submission requirements, deadlines and meeting dates. Contact the Town's Building Department to determine what other reviews are required; if multiple reviews are necessary they can often be pursued simultaneously.

Q: Does my project require HDC review?

A: Proposed changes to any building, site or structure within the boundaries of a locally designated Exeter Historic District are required to receive an approval. This includes all work that might be considered ordinary maintenance and repair with the exception of repainting. Refer to applicable *Guidelines* sections for clarifications regarding types of work that is subject to review. Most applications for maintenance and in-kind repair are reviewed at the Staff level within 7 to 10 days of a completed application filing.

Q: How do I apply for HDC review?

A: The specific submission requirements for HDC review will vary based upon whether the submission is for a conceptual review or a Certificate of Approval. In most instances, the submission materials are typically similar to those required for a building permit review. For specific information regarding the submission requirements for your proposed project please refer to the applications available on the Town of Exeter website at www.exeternh.gov or contact the Town's Building Department at (603) 773-6112.

Q: Can I begin construction immediately after I get the HDC approval?

A: The HDC review is not necessarily sufficient for the granting of a building permit. Each project is also subject to review by all departments having jurisdiction over compliance with zoning, building and safety codes. HDC review is just one step in obtaining a building permit. You must complete all necessary reviews and obtain all necessary permits applicable to your project prior to proceeding with any work. However, you cannot receive a building permit without obtaining an approval from the HDC.

PRESERVATION RESOURCES

Reference

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Building & Landscape Preservation

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PRESERVATION ORGANIZATIONS

Local Organizations

Town of Exeter Building Department Historic District Commission (HDC); Heritage Commission Town Hall; 10 Front Street, Exeter, NH 03833; (603) 773-6112; www.exeternh.gov

Exeter Historical Society
47 Front Street; Exeter, NH 03833;
(603) 778-2335; www.exeterhistory.org

State and Regional Organizations

New Hampshire Division of Historical Resources 19 Pillsbury Street; Concord, NH 03302 (603) 271-3483; preservation@dcr.nh.gov

New Hampshire Preservation Alliance 7 Eagle Square; Concord NH 03302 (603) 224-2281; www.nhpreservation.org

Historic New England

Otis House; 141 Cambridge Street; Boston, MA 02114 (617) 227-3956; www.historicnewengland.org



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Historic District Commission

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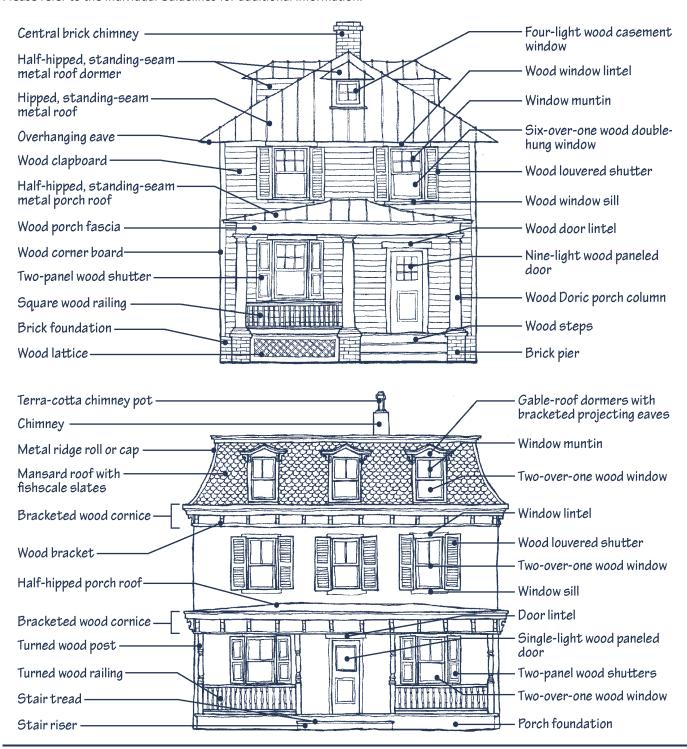
Building Department

Doug Eastman, Building Inspector/Code Enforcement Officer

Barbara McEvoy, Deputy Code Enforcement Officer

GLOSSARY OF ARCHITECTURAL TERMS

The following diagrams represent composite buildings, and provide a basic vocabulary of architectural elements and terms. Please refer to the individual *Guidelines* for additional information.



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TOWN OF EXETER HISTORIC DISTRICTS

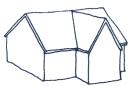
Roofing







Side Gable



Cross Gable



Mansard











Flat with Parapet

ROOFING

A building's roof provides the first line of defense against the elements while its form and design can greatly affect the building's overall appearance. In addition, Exeter's roofs include a number of features that enhance the overall appearance of their respective building. These features may include chimneys, dormers and cupolas, as well as bell towers and steeples. As a result, a building's roof and associated features are also a typical indicator of its architectural style, a reflection of both its climate and its history.

The following functional and aesthetic concerns should be evaluated when considering a new roof or roof alteration:

- Weather-tight roofing preserves a building and provides shelter from storm water, wind and sun
- The form, color, texture and material of the roof and its associated features affect the scale and massing of the building

These *Guidelines* were developed in conjunction with the Town of Exeter's Historic District Commission (HDC) and the Building Department. Please review this information during the early stages of planning a project. Familiarity with this material can assist in moving a project forward, saving both time and money. The Building Department is available for informal meetings with potential applicants who are considering improvements to their properties.

Guidelines and application information are available at the Town Office and on the Commission's website at exeternh.gov/bcc/historic-district-commission. For more information, to clarify whether a proposed project requires HDC review, or to obtain permit applications, please call the Building Department at (603) 773-6112.

- Roofing and roof features help define a building's character, silhouette and architectural style, with variations adding visual interest along a streetscape and the Town's skyline
- Retaining historic roof features and accessories can enhance a roof's overall character and appearance
- Non-historic elements to a roof, such as roof decks and mechanical equipment can have a negative visual impact and should be minimized and shielded from view

ROOF FORMS

The historic form of a roof is critical to the understanding of a building's type and architectural style. Certain roof forms are linked with specific styles, such as Mansard roofs with Second Empire style. Alterations to a roof's shape can have a negative impact on the building's historic authenticity and appearance, and can lead to drainage problems or water infiltration.

Roof forms can have various pitches and be combined in different manners to provide varied roof types. Some of the most common roof forms found in Exeter are illustrated above. Often, the most successful additions to historic buildings utilize similar or compatible roof forms and slopes. (Refer to *Building Form & Massing, Guidelines for Additions & New Construction*, page 07-6).

In addition to its role in defining a building type or architectural style, a roof's pitch or slope, as well as climatic conditions, such as snow loads and high winds, functionally define the appropriate materials for a roof. Low-pitched to flat roofs depend on a continuous or nearly continuous roof surface to minimize moisture infiltration, while moderately to steeply sloped roofs may be roofed with unit materials such as slate and asphalt shingles.



Mansard roofs are common features of Second Empire buildings. This slate mansard roof features decorative cresting at the uppermost roof level.

INVESTIGATING HISTORIC ROOFING

Some investigation may be needed to determine the historic sloped roof material for a building. A good place to start is in the attic. New roofs are often installed on top of older roof surfaces. Between rafters, older roofs can sometimes be seen. Another area of review is the roof framing, strapping and sheathing. Because of its weight, slate requires more substantial roof framing, with larger rafters and narrower spacing than wood or asphalt shingle framing. If the original strapping is visible, there are variations in lath spacing that relate to standard sizes for slate, wood shingles and other materials. Finally, wood sheathing was often needed in metal and asphalt roof installations, while strapping or boards was used in slate, wood and terra cotta installations.

If physical evidence is not available, investigating documentary evidence such as historic photographs, speaking to neighbors or looking at similar buildings in the area might provide clues about original roof materials. Local resources such as the Exeter Historical Society can offer valuable sources.

LIFE-CYCLE COST OF ROOFING MATERIALS

With regular maintenance, traditional historic roofing materials perceived as "more expensive" (such as slate) often have substantially longer lifespans than other forms of roofing. As a result, they do not require replacement as often and may have a lower life-cycle cost than less expensive materials such as asphalt. Full life-cycle costs are also key when considering a building's sustainability goals. Typically, a material's longevity, sustainability and aesthetic qualities often add to a property's value.

SUBSTITUTE MATERIALS

Care is recommended when using substitute materials since they might not have the longevity advertised, can potentially damage historic building fabric, and may not meet the Secretary of the Interior's Standards.

ROOFING MATERIALS

Historically, roofing materials were selected based upon practical and aesthetic criteria including pitch, weather conditions and the availability of materials and craftsmen. The popularity of architectural styles, from the use of wood shingles for Early Colonial and Federal style buildings to the use of slate for Victorian styles and masonry buildings, also had a great impact on the selection of roof material. With industrialization at the beginning of the 20th century, new roofing materials were introduced, including asphalt and asbestos-based shingles, as well as varieties of rolled or built-up roofing for flat installations. The variety of metal roofing expanded to include copper, tin and galvanized sheet steel. In addition, although less common in Exeter, terra cotta and concrete tiles were also popular in different periods.

Each material provides a specific color, texture and pattern to a roof surface. Wood shingles and slate provide a modulated surface with variations in color, pattern, texture, veining, graining and thickness while metal roofing can provide a ribbed or smooth surface.

More recently, a larger variety of substitute roofing materials intended to simulate historic materials has been developed, some more successful than others. These include architectural asphalt-composition shingles and fiberglass, metal, tile or recycled rubber shingles intended to evoke the appearance of slate, wood shingle and terra cotta. The most common roofing materials in Exeter include slate, asphalt, metal and flat roofing systems.



Roof forms can provide a dramatic building silhouette against the sky. Both the pyramidal hipped roof of the tower and the front gable roof have bands of patterned slate, typical of the Victorian period.



Slate roofing is often found on Exeter's older buildings. Also note the copper flashing along the roof hip.

SLATE

Slate was a common roofing material on buildings constructed in the colonial and federal period through Colonial Revival buildings of the 20th century. During the Victorian period, slate roofing could include slates of a variety of shapes and colors, installed in decorative patterns on roof slopes.

A slate roof can last 60 to 125 years depending on the roof slope, stone properties, formation, installation quality and regularity of maintenance. Failing slate often slowly delaminates, chips and absorbs moisture, causing the deterioration process to accelerate over time. Problems with slate roofs are typically the result of localized failure, since many of the roof accessories and fasteners do not have the same 100-year life span as the slate itself. To extend the serviceable life of a roof, property owners are encouraged to address localized problems as they become apparent, using a qualified slate roofer.

Typical localized problems and possible repairs for slate:

- Loosening or corrosion of fasteners for slate or accessories Reattach or replace fastener
- Split or cracked slate Install sheet metal under shingle, fill split or hole with roofing cement
- Missing or damaged slates or roof accessories Replace to match original

If over 20% of the roof slates are damaged or missing, replacement of the roofing might be warranted; in this case, property owners are strongly encouraged to make every attempt to match decorative patterns with replacement materials. When replacing sections of a slate roof, it may be possible to salvage and reuse some of the existing slate. Imitation slate products have unknown reliability and lifespan and the HDC recommends retaining slate roofs or, if necessary, replacing them in-kind. It is critical to select a flashing material with a life span similar to or longer than the new roofing.

ASPHALT

Asphalt became a popular roofing material at the beginning of the 20th century providing a relatively inexpensive and easily installed roofing material. Early asphalt roofing was generally made of asphalt-saturated felts in a variety of shapes, styles, textures and colors. Today, asphalt shingles are made with fiberglass, generally as 3-tab, "architectural" or "dimensional" shingles, which include multiple layers of material with simulated shadows suggesting slate or wood shingles.

An asphalt shingle roof can be expected to last from 15 to 25 years with "architectural" or "dimensional" shingles lasting longer due to their multiple layers. Over time, asphalt shingles can curl, lose their mineral coating, be dislodged by wind or become brittle.

Typical localized problems and possible repairs for asphalt:

- Split or puncture *Install sheet metal under shingle, fill split or hole with roofing cement*
- Missing or damaged shingles or roof accessories Replace to match original
- Moss or fungi on surface Trim back adjacent trees to allow sun to dry out roof surface

If over 20% of the asphalt shingles on a roof slope are damaged or missing, replacement of the roofing might be warranted. Property owners are encouraged to replace historic asphalt shingles in-kind.



This 3-tab asphalt shingle roof has exceeded its useful life. Given the unevenness of the surface, It would be prudent to have the underlying framing and sheathing reviewed by an architect or engineer prior to re-roofing.

RIDGE VENTS

A ridge vent, installed along the majority of the ridge line, allows the passage of air through the attic or cathedral ceiling. The air movement can reduce heat build-up and potentially moisture in attics and within roof framing.

Ridge vents are commonly included at asphalt roof installations, and can be covered with matching asphalt shingles to minimize their visibility.

METAL

Metal became a popular material for roofing after sheet metal production was expanded following the mid-19th century, and can be found on commercial and industrial buildings, as well as residences and outbuildings. Traditional sheet roofing metals include lead, copper, zinc, tin plate, terne plate (rust-preventive coated steel) and galvanized iron. Some historic metal roofs require regular painting, with traditional colors including silver, grey or green, to minimize the potential for corrosion. While historic metal roofs were typically formed on-site, newer metal roofs are often made from preformed components or sheet materials that allow for less labor-intensive installation.

On shallow pitch roofs, such as those of porches, cupolas or dormers, small rectangular pieces of flat seam metal roofing were installed with edges crimped together and soldered to form a weather-tight surface. On steeper pitched roofs, long continuous seams were used, typically in a standing seam configuration, providing regular ridges down roof slopes. Corrugated or other paneled metal roofing was also common on commercial and industrial buildings as well as outbuildings, such as sheds and garages.

Deterioration of the metal surface tends to occur from wearing of the protective painted or galvanized surface, chemical action, rusting, pitting or streaking, airborne pollutants, rain or material acids, or galvanic action. Galvanic action occurs when dissimilar metals chemically react against each other and corrode, and can come from adjacent metals, such as fasteners or non-adjacent metals (such as roof cresting), via rainwater.

If the roof is generally rusting, splitting, pitted, severely buckled or warped, or many of the seams or edges are open or disfigured, replacement of the roofing might be warranted. If considering replacement, applicants are encouraged to make every attempt to match the material and seam patterns with the replacement material.

Typical localized problems and possible repairs for metal:

- Worn paint, galvanizing or coating Repaint
- Slipping sheet, panel, open seam or open solder joint -Refasten and/or re-solder
- Isolated rusting or holes Replace to match original



Copper is a traditional metal roofing material that does not require painting. The standing seams, as shown in this example, create a regular pattern along the roof surface.



Rubber roofing systems can crack, eventually forming leaks. Significant cracking of this roof suggests replacement might be prudent.

FLAT ROOFING SYSTEMS

Although very few roofs are truly "flat", low-sloped roofs, generally defined as a pitch less 3:12 (3-inch rise for 12-inch run), require a watertight roofing system. There are a variety of flat or low-slope roof systems including: metal roofing, built-up roofing, single-ply roofing, and modified bitumen roofing. By contrast steeper pitched roof systems generally employ shingles that shed storm water.

Typical localized problems for flat roofs include:

- Splits, punctures, or cracking of surface
- Standing water or poor drainage

Although flat roofs that are not visible from a public way are not subject to HDC review, it is recommended when selecting roofing materials that the materials and design address the building's drainage and specific details of the existing conditions including attachment, substrate and weight limitations. The installation of light-colored roofing to minimize solar heat gain is also recommended.

Most low-sloped roofs include a parapet and/or cornice, particularly along street elevations, providing a visual termination to the building wall. These components and parapets were often decorative and reflect the building's style.

Parapet: The portion of a wall that projects above an adjacent roof surface.



Cornice: The projecting horizontal moldings toward the top of the building wall at the roof edge.



Gable roof dormers can typically be found at early Federal and Greek Revival, and Colonial Revival buildings. This example is pedimented and includes a 6/d window.



DORMERS

Dormers, also known as dormer windows, were traditionally used to let light and ventilation into the attic and to create habitable space. At the exterior, they protrude from sloped roof surfaces and visually break up large roof surfaces. Dormers can have various roof shapes, but in the Exeter they typically have a gable, hip or less often, a shed roof form. Historically, the overall height and proportions of dormers is determined by the building style, with upper floors tending to have smaller windows than lower floors.

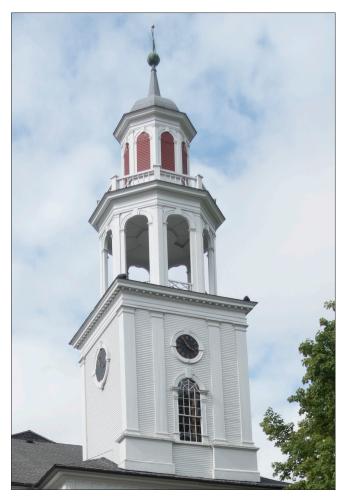
When considering a new dormer, particularly on historic buildings, property owners are encouraged to review historic dormers at comparable buildings of the same style and period. It is important to keep in mind a poorly scaled or detailed dormer can drastically change the appearance of an otherwise well-proportioned house and have an adverse impact on the roof form and historic character.

Most early wood framed homes include a massive, central brick chimney, which was used to heat the house.



CHIMNEYS

Chimneys were designed to complement the style of a building and period of construction. In Exeter, most are constructed of brick or masonry, some of which have been covered by stucco. The rhythm and placement of chimneys typically reflect the internal organization of a building and represent an important building feature. Most building types and styles have square or rectangular chimney shafts, sometimes with molded tops. Victorian period chimneys can include decorative detailing including corbelling, varied patterns, undulating and molded surfaces, and decorative terra cotta chimney pots. Though routine maintenance and repair of a historic chimney does not require a Certificate of Approval (COA) from the HDC, removal of historic chimneys is only approved by the HDC if they are structurally deficient. The use of veneer brick chimneys is only appropriate in unique circumstances and is strongly discouraged.



The bell and clock tower at the Congregational Church serves both functional and decorative purposes.

ROOF FEATURES & ACCESSORIES

Roof features are functional and sometimes decorative elements that define the profile of a roof against the skyline and should be appropriate to the building's style. Historic rooftop features include cresting, finials, roof hatches, flashing, gutters, downspouts, weather vanes and bell towers. More recent additions include skylights, solar panels as well as mechanical and television equipment. In its review of new roof features and accessories, the HDC considers the appropriateness to the building, existing features and accessories, level of visibility, as well as the visual impact to the roof character and appearance. Property owners considering installation of new roof features or accessories should make every effort to minimize their visibility and the appearance of clutter in order to improve the likelihood of approval.

ROOFTOP ADDITIONS

In cases where a property owner is considering adding habitable space at the roof level, such as a bedroom, office, bathroom or kitchen facilities, it is considered a rooftop addition. Refer to the *Guidelines for Additions & New Construction* for additional information regarding additions.

Flashing

Flashing is typically made of thin sheet metal formed to prevent water from entering a building at joints, intersections and changes of pitch. It is installed around chimneys, parapets, dormer windows, roof valleys, vents and intersections of porches, additions and projecting bays. Flashing often fails before roof surfaces, particularly at more durable roofing such as wood shingles or slate. Failures result in interior leaks and deterioration of framing. If the flashing deteriorates, it is possible for a qualified roofer to replace it without replacing the entire roof.

When replacing flashing or installing a new roof, it is important to select a flashing material that has an anticipated life span similar to or longer than the roofing. Copper, terne, steel, lead, and aluminum are all used for flashing. The longevity of each material is based upon its thickness, its propensity for deterioration from environmental conditions, and whether it is galvanized, treated or coated. Generally, copper or lead-coated copper has the longest life span, followed by stainless steel, with aluminum being highly susceptible to punctures, tears and galvanic reaction with other metals and some roofing materials. It is important to verify that flashing materials are sympathetic and compatible with existing roofing materials, including fasteners, to prevent premature deterioration.

The skylights are low profile and parallel to the roof slope, minimizing their visibility. Also note the stepped copper flashing at the brick chimneys with the bishops cap chimnev caps.



Skylights & Roof Hatches

Skylights were historically used in commercial and warehouse buildings. Advancements in technology allowed them to be installed at residences. Similar in form to a skylight, a roof hatch can provide access to a roof for snow removal and maintenance, as well as provide a means of ventilating attic spaces. The installation of new skylights and roof hatches should minimize alteration of the roof structure with the long dimension oriented down the roof slope. Skylights and roof hatches should be hidden or minimally visible from public view, and should not disturb historic roof materials such as slate, nor require the significant modification of existing roof framing.

Snow Guards

Snow guards are typically cast metal or bent wire devices arranged in a staggered pattern near an eave to prevent large masses of snow from sliding off a roof slope. Another form of a snow guard is spaced brackets supporting metal rods above the roof surface. Both types of snow retention can protect eaves, cornices and gutters, and take advantage of the insulating effect of snow.



This slate roof has two types of snow guards along the roof eave, spaced brackets supporting metal rods above, the left and individual guards to the right.

Gutters

Gutters typically are located near or along the bottom edge of a roof slope to collect rainwater. Although many of Exeter's early buildings were not designed with gutters, installing them can significantly reduce water damage to building walls and foundations. Built-in gutters are often not visible from the ground, and are typically within or behind architectural features such as cornices or parapets. Pole gutters are located near the bottom edge of a roof slope and project perpendicularly to the roof surface. Both built-in gutters and pole gutters are formed of flashing materials typically wrapped around or within wood enclosures.

Hanging gutters are located just under the roof slope edge and are usually metal with half-round or profiled cross sections. Similar to flashing, gutter materials have different life spans. Generally, copper has the longest potential life span, followed by steel, with aluminum being highly susceptible to punctures, tears, dents and galvanic reaction to other metals. When installing or reinstalling gutters, property owners should reproduce any special or historic molding, strap or bracket used to support or attach a gutter to a building and repair or replace wood eave detailing and trim.



The water from this half-round gutters is collected in a scupper box and directed to a round downspout. All are painted white to match the wood trim.



This rectangular copper downspout discharges stormwater away from the building foundation.

Downspouts

Downspouts, also known as rainwater conductors, conduct a gutter's water down the face of the building to the ground or a drainage system via a cast iron boot and are generally surface mounted to a building's exterior. Similar to gutters, downspouts can be fabricated of copper, galvanized metal or aluminum, in a round or rectangular profile. An advantage of a lead-coated copper or galvanized metal downspouts is that they can be painted to match the building colors.

When adding downspouts to a structure for the first time, they should be arranged in an orderly fashion and mounted to the building rather than a porch post or column.

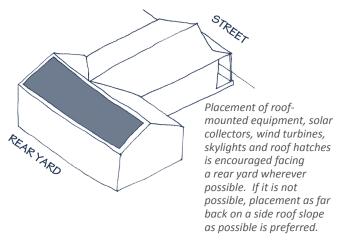
Rain barrels can collect storm water for future use in the garden, reducing run-off into the river. Property owners are encouraged to select neutral colors and shield rain barrels from public view with plantings to the extent possible.



Green Roofs & Rain Barrels

Much of the rain that falls on a roof surface is typically diverted to a gutter, then a downspout, and from there, discharged at the perimeter of a building or into a storm sewer. Reducing the amount of water that reaches the gutter or collecting the water as it is discharged from the downspout, prevents the soil around a building from becoming saturated, potentially impacting the foundation. In addition, the sewer system is less likely to become overwhelmed in a significant storm.

One of the means of controlling the quantity of water diverted to a gutter system is installing a green roof so that the planted material is not visible from the public way. An option for flat and sloped roofs is installing rain barrels at the bottoms of downspouts. Rain barrels collect storm water discharged from downspouts. They typically include a spigot near the bottom for a hose hook-up, allowing the collected storm water to be used for watering gardens and lawns.



ROOF MOUNTED EQUIPMENT

Roof mounted equipment including mechanical equipment, vents, television dishes and antennae and mobile telecommunication equipment are all examples of modern roof-mounted mechanical equipment and penetrations that can affect the historic integrity of a building. Although it is understood that some roof penetrations are required for items such as plumbing vents, property owners are encouraged to limit the amount of rooftop equipment and penetrations, and minimize the overall appearance of clutter. For more information on additions that change the appearance of an existing roof, refer to the *Guidelines for Additions & New Construction*.

RENEWABLE ENERGY

Solar collectors provide a renewable energy source. The Town of Exeter encourages solar collectors for space heating, hot water and electricity. However, property owners are encouraged to locate solar collectors where they are hidden or minimally visible from public view. To minimize their visibility, the frame and panels should be the same color as the roof structure, and located parallel to and as close to the roof structure as possible. The proximity and seasonal shading characteristics of adjacent and neighboring trees and structures should also be considered to ensure sufficient year-round solar exposure to justify the expense of installation. (Refer to Roof-Mounted Equipment diagram above for placement.)

Similarly, wind turbines are a renewable energy source. However, because turbines need to be located to benefit from consistent breezes, they are often taller than adjacent buildings and highly visible. Similar to solar collectors, the visibility of wind turbines should be minimized from public view.

An "invisible" form of renewable energy is geothermal heating and cooling. Geothermal systems use the thermal energy generated and stored in the earth to heat/cool a building through a series of pipes bored into the ground. Typically, the only component of the system that is visible at the exterior of a building is a valve access cap, generally located flush with the ground.

ROOF REPAIR OR REPLACEMENT

The HDC recommends:

- Maintaining a building's roof slope appropriate to the architectural style at primary and ancillary structures
- Designing an addition or new buildings with a roof slope similar to existing buildings and neighboring construction
- Selectively replacing damaged or missing elements inkind, so as to match the material, size, shape, texture and other visual characteristics of the original
- If the level of damage or deterioration is beyond repair, completely replacing damaged or missing materials in-kind to match the material, size, shape, texture, pattern and other visual characteristics of the original
- If replacement in original material is not possible, replacing damaged or missing materials with new modern material of similar size, shape, texture, pattern and other visual characteristics of the original
- Installing roofing rather than typical wall materials on the steep slopes of mansard roofs
- Maintaining, cleaning and/or repairing of roofing, roof accessories and rooftop features
- Securely installing fasteners and flashings with a similar expected life span to the roofing material
- Regular repainting of metal components susceptible to rust and wood elements susceptible to rot and deterioration
- Regular cleaning of gutters and downspouts
- Retaining original drainage system and appearance
- Installing half-round gutters rather than a profiled K-gutter, which often competes with building features
- Installing plain round or rectangular downspouts in lieu of corrugated downspouts
- Installing solar collectors, mechanical and other roofmounted equipment in a manner that is preferably not visible or minimally visible from the public right-of-way
- Minimizing the visibility of a skylight or roof hatch by using components that are relatively flat, sympathetic to and compatible with the existing roofing materials
- Inspection of attics after a storm or freeze to catch small leaks early minimizing potential interior damage

The HDC discourages:

- Modification of the roof plane for the installation of insulation or any other purpose
- Installing multiple or oversized dormers that essentially alter the roof form

- Removing roof features such as chimneys, dormers, cupolas, weathervanes, finials, etc.
- Removing or altering historic drainage systems
- Adding or altering rooftop features or equipment at areas visible from a public way that change roof configuration including skylights, television antennas or dishes, solar collectors, mechanical equipment, roof decks, chimney stacks and dormer windows
- Adding false historical rooftop features such as weathervanes, cupolas or wood shingles on an originally slate roof, without supporting physical or documentary evidence
- Installing new roof mounted equipment in a manner that is visible from the public right-of-way or visually prominent or highly reflective equipment
- Replacing a historic masonry, chimney with a framed chimney covered with brick or stone veneer

ADDITIONAL AREAS OF CONSIDERATION

- Roofing work is potentially dangerous and should be left to professionals
- All roofers are not experienced in all materials; obtain references and verify that roofers have appropriately completed compatible work
- Verify the extent of both the material and installation warranties and company histories
- Verify whether removal of existing roofing is required before installation of new roofing; too much weight can damage structural elements
- Verify the condition of substrate for rot or decay and make necessary repairs, including the sheathing or lath, and structural elements
- Use substrate appropriate for roof material and provide adequate ventilation under roof surface
- Ensure all portions of the roof are sloped to drain
- Use appropriate underlayment including building paper, rosin paper and/or ice shield
- Use a single type of metal compatible with roofing at fasteners, flashing, gutters and downspouts to avoid galvanic action
- Select a flashing material with a longer or comparable life span to the roofing material
- Reference industry standards such as SMACNA, Copper and Common Sense and Slate for roofing information

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