



# Leesburg

## VI. GUIDELINES FOR THE PRESERVATION AND MODIFICATION OF EXISTING STRUCTURES: MATERIALS

*PLEASE NOTE: Always check the most recent version of the Zoning Ordinance and other governing documents to ensure that your project meets the applicable regulations in the Town of Leesburg (i.e. setback, fence height) and the most recent version of the Design Review Procedures Manual for more information on how to plan a project and obtain a Certificate of Appropriateness.*

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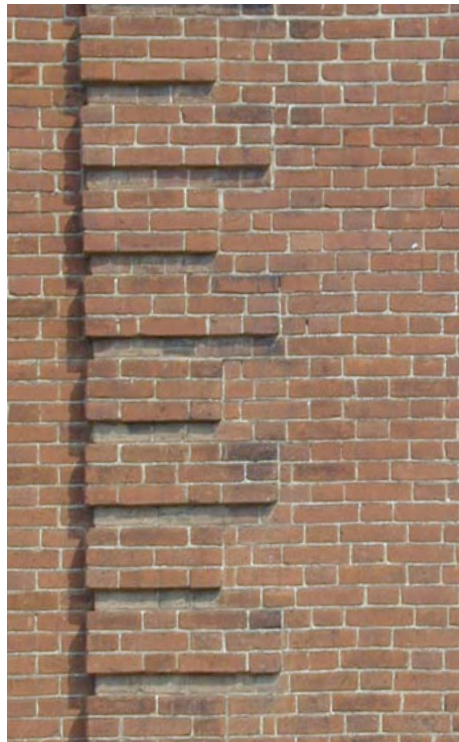
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The materials that make up the elements of a historic building are important character-defining features that make a statement about the building's style and age. The natural patina that these materials exhibit is an irreplaceable attribute which often cannot be replicated with modern materials. Therefore, it is important to retain and repair historic materials whenever possible and to replace them only when necessary with materials which match the characteristics of the originals as closely as possible.

Proposed changes to materials on non-contributing buildings (see the introduction to *Chapter V* for information on contributing and non-contributing buildings) are evaluated according to the context of the building and its location rather than historical significance and architectural style. Proposed changes to materials on non-contributing buildings in the district should be complementary to the existing building in size, design, material, location and color but should not convey a false historical appearance.



Log was an early building material in Leesburg and was often covered with wood siding as the economic status of the owner improved. Stone, as used in the foundation for this structure, was also a readily available raw material for buildings.



Brick has been a common building material throughout Leesburg's history. Differences in the regularity of the brick size, and mortar and bond patterns, can help to identify the period of the building's construction.



German siding, characterized by a beveled upper edge, became common in the latter decades of the nineteenth century. Additions to earlier structures, as well as many Victorian styles, used this wood siding profile.



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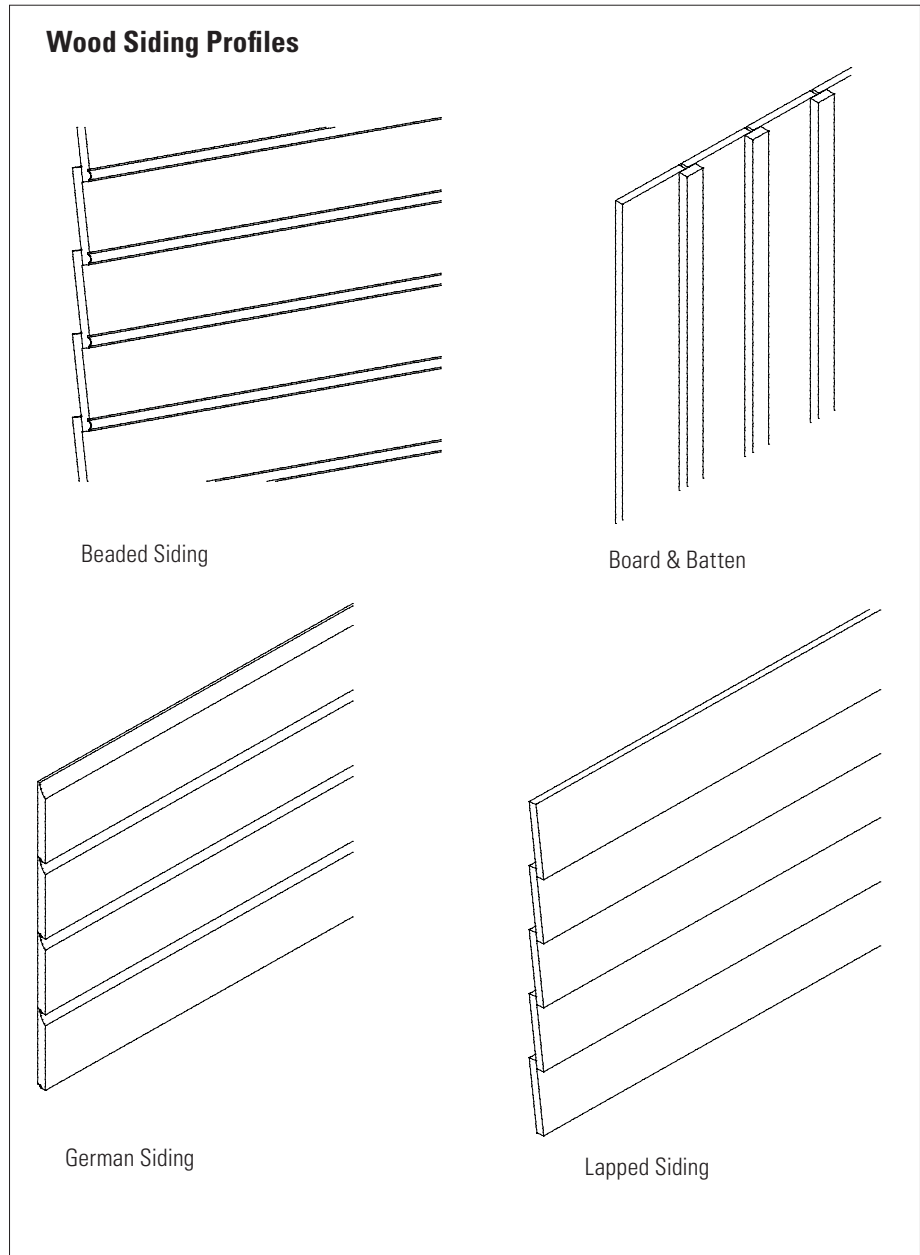
### A. Wood

Because it can be shaped easily by sawing, planing, carving, and gouging, wood is used for a broad range of decorative elements such as cornices, brackets, shutters, columns, storefronts, and trim on windows and doors. First growth wood has more dense growth rings that provides for better resistance to water and insect damage than wood that has been available since World War II.

In addition, wood is used in major elements such as framing, siding, and shingles. Wood siding with a reveal of four to six inches is most common in the OHD, although more narrow examples may be found on late-nineteenth century structures and wider examples on some Colonial-era and early Federal-era buildings.

#### *Guidelines for Wood*

1. **Retain** original and historic wood features that define the overall character Leesburg's OHD and many of its buildings such as siding, shingles, cornices, and brackets.
2. **Retain** original or historic wood windows including frames, sash, and trim when possible.
3. **Repair** rotted or missing sections rather than replace the entire element, matching the existing materials and detailing.
4. **Replace** wood elements only if they are deteriorated beyond repair. Wood that appears to be in bad condition because of peeling paint or separated joints often can, in fact, be repaired. If the wood has deteriorated beyond repair and replacement is necessary:
  - a. Match the original in material, texture, dimensions, and design.
  - b. Base the design of reconstructed elements on pictorial



- c. If the applicant sufficiently demonstrates that it is impracticable to match the original in material, texture, dimensions and design, then the BAR may consider an alternate material if the new material does not

- d. Do not use cement fiberboard or other synthetic or alternative materials if it is architecturally incompatible with the historic structure.



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Ornamental shingles typical of the Queen Anne style.



A simple wood cornice and boxed eave.



A wood porch with turned columns, decorative brackets and exposed rafter tails.



An wood Italianate bracketed cornice decorates this commercial building.



Exposed logs show the construction of the building..

### *Inappropriate Treatments for Wood*

- Do not pressure wash wood because of the damage that it can do to the material's integrity. Pressure washing also may force moisture underneath the siding and into the framing system of the building. Rot, mold and other related problems may result.
- Do not stucco or parge wood siding that is currently exposed.



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### B. Masonry

Masonry is used on cornices, pediments, lintels, sills, and decorative features, as well as for wall surfaces and structural systems. Color, texture, mortar joint types, and patterns of masonry help to define the overall character of a building.

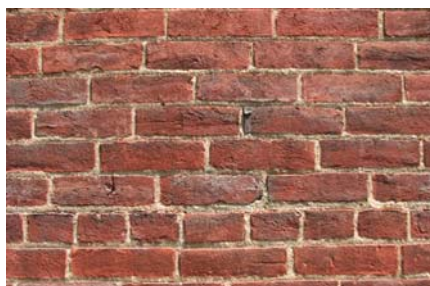
Brick is the most common type of masonry used in Leesburg. It is used for the construction of building walls, some foundations, garden walls, and many chimneys. The consistent medium red color of the brick and the pattern in which it is laid (most commonly Flemish or American bond) are character-defining elements of the historic district.



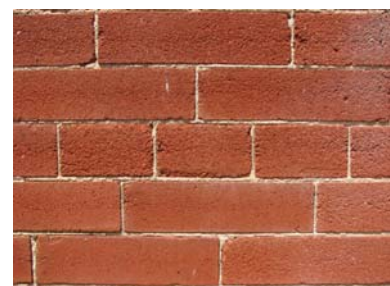
Brick is used throughout the district as a wall material as well as for decorative accents.



Stone, of various size and character, and with varying joint profiles, is used throughout the district for walls, foundations, and chimneys.



Before mechanization, brick was handmade and often irregular in size. Mortar joints were made wide enough to absorb the difference in brick dimension.

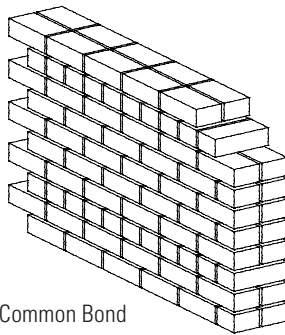


By the late-nineteenth century, machine-molded brick of very regular dimensions became standard and allowed for more narrow mortar joints.

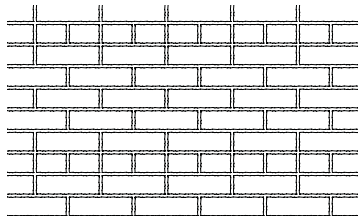
## VI. GUIDELINES FOR THE PRESERVATION AND MODIFICATION OF EXISTING STRUCTURES: MATERIALS



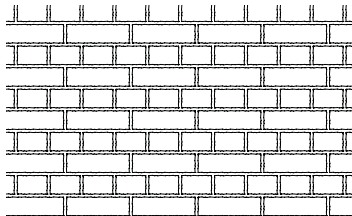
### Typical Brick Bond Patterns



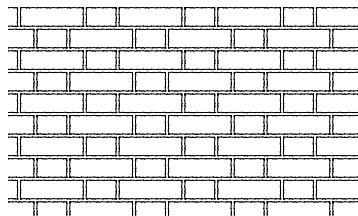
Common Bond



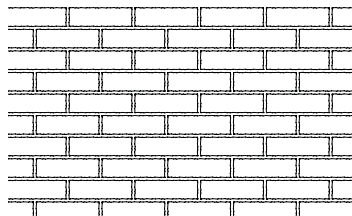
5 Course Common Bond



English Bond



Flemish Bond

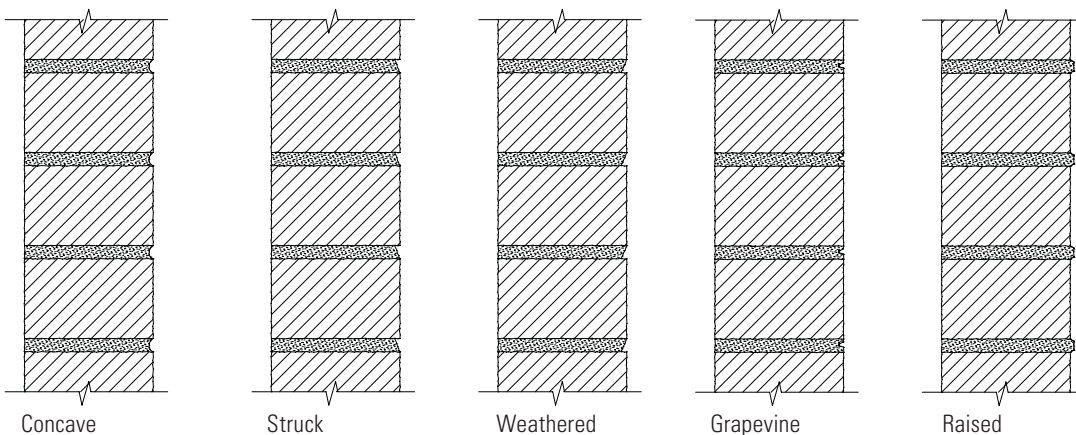


Running Bond

### Guidelines for Masonry

1. **Retain** original or historic masonry features such as walls, cornices, window surrounds, steps, and columns, which are important in defining the overall character of the building.
2. **Retain** unpainted masonry in its original state.
3. When necessary, **repair** or **replace** a masonry feature using masonry units that match the size, texture, color, pattern and physical properties of the historic material, as well as mortar joint size and tooling.
4. **Repair** cracked and unsound mortar with mortar that matches the historic material in color, texture, physical properties such as strength and porosity, detailing, and tooling.

### Typical Masonry Joints



Concave

Struck

Weathered

Grapevine

Raised





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### B. Masonry, continued

5. **Repair** by repointing only areas where mortar has deteriorated. Sound mortar should be left intact. Portland cement, a material that is harder than brick, may crack and spall the masonry. New mortar should have a low percentage of portland cement and match the original mortar composition as closely as possible.
6. Requests for the reapplication of paint or other coatings on masonry buildings that were previously finished with this material will be evaluated on a case-by-case basis. See *Section F* of this chapter for more information on paint and other coatings.
7. **Replace** missing details and components in-kind or with an appropriate composite system that matches the visual qualities and details of the original.

#### *Inappropriate Treatments for Masonry*

- Do not sandblast masonry, use high-pressure waterblasting, or chemical cleaning with an inappropriate cleanser as these methods can do irreparable damage.
  - Do not repoint masonry with a synthetic caulking compound or portland cement as a substitute for mortar.
  - Do not use a slurry, in which a thinned, low-aggregate coat of mortar is brushed over the entire masonry surface and then scrubbed off the bricks after drying as a substitute for traditional repointing.
  - Do not damage the surrounding masonry when removing mortar.
- Do not use waterproof, water-repellent, or non-historic coatings on uncoated masonry. They often aggravate rather than solve moisture problems. Exceptions to this may include:
    - The use of a breathable water-repellent coating on selected areas of porous, soft, incompletely fired brick to prevent further deterioration after all necessary repointing and repair has been completed.
    - The use of an anti-graffiti coating on masonry areas that have seen repeated vandalism and where improved lighting and other security measures have not been successful.



The patchwork on this brick building is evident by the difference in the color of the brick as well as the color, composition, and texture of the mortar.



The parging of elements not historically covered in such a material is not appropriate.

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### C. Stucco

Stucco is a type of exterior plaster. It may be applied directly over masonry or applied over wood or metal lath, on a wood structure. Stucco can be finished in numerous surface textures dictated by the style of the building including smooth, roughcast, sponged, and scored.

Stucco, in various forms, is a very old building material whose use dates back hundreds of years. During the late eighteenth and early nineteenth centuries in the U.S., stucco was often applied to buildings to provide a more 'finished' appearance and to simulate a higher-grade material than that used to construct the building.

For example, a brick building constructed in the Greek Revival style in the 1830s might have featured stucco-finished walls that were scored to simulate large masonry blocks and then finished with paint to better convey the appearance of stone.

Used in this way, it was a cost-effective means of achieving the appearance of a higher-quality building material. Leesburg features several buildings that reflect this treatment. These early stucco formulas were lime-based and included water, sand, and a binder such as horsehair.

In the late nineteenth century, both the composition and the appearance of stucco changed. In the late 1800s, the use of portland cement revolutionized the construction industry. In addition to its contributions to the concrete industry, it was also used in mortar and stucco. By the early 1900s, the use of portland-based stucco was common in many architectural styles, including the Tudor Revival, Colonial Revival, and Bungalow styles.

In Leesburg, many buildings were built with stucco-finished exteriors during the first quarter of the twentieth century. Also at this time, some buildings erected

in the late-eighteenth through the mid-nineteenth centuries were also stuccoed; not only did it bring older buildings into current fashion, but it was also useful to cover over changes to a building's exterior.

While stucco is considered a protective coating, it is highly susceptible to water damage, particularly if the structure underneath the stucco is damaged. Historic stucco needs regular maintenance in order to keep it in good condition. If stucco is the primary wall cladding, the materials under the stucco were not intended to show, so complete removal of stucco in these instances is considered inappropriate.

A stucco surface may have also been applied to the building at a later date. As a secondary material, it may have acquired its own significance over time and in many cases should also be retained.

#### *Guidelines for Stucco*

1. **Retain** and maintain historic stucco. It is a character-defining material that often has acquired significance over time.
2. **Repair** any water damage to the underlying structure to provide a sound base for necessary stucco repairs.
3. **Repair** stucco, plastering, or parging by removing loose material and patching with a new material that is similar in composition, color, and texture. It is recommended that you perform a professional lab analysis to match new stucco to the existing material.
  - a. Stucco may be tinted or pigmented and was sometimes whitewashed or color-washed. When replacing or repairing stucco, match the color or tint of the existing material.



Stucco is a less common material in the OHD than brick or stone.

- b. Consult a professional to determine the appropriate compatible paint for the existing surface coating.
4. Requests for the removal of stucco from a building will be reviewed on a case-by-case basis to evaluate the impact that its removal will have on the architectural character of the building.

#### *Inappropriate Treatments for Stucco*

- Do not repair stucco with new stucco that is stronger than the historic material or that does not convey the same visual appearance.
- Do not use commercial caulks or other compounds to patch stucco. Because of the difference in consistency and texture, repairs made with caulk are highly visible and may cause more damage.
- Do not remove historic stucco coatings from brick, stone, or log structures.
- Do not use waterproof, water-repellent, or non-historic coatings on uncoated masonry. They often aggravate rather than solve moisture problems.





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### D. Metal

Cast iron, steel, tin, copper, aluminum, bronze, galvanized sheet metal, and zinc are some of the metals found on buildings throughout the OHD. Metal is used primarily for roofs, cornices, light fixtures, and decorative elements such as fences.

#### *Guidelines for Metal*

1. **Retain** original or historic architectural metals that contribute to the character of the building and neighborhood.
2. **Repair** or **replace** in-kind these metals as necessary, using identical or compatible materials. Some metals are incompatible and should not be placed together without a separation material, such as nonporous, neoprene gaskets or butyl rubber caulking.
3. **Replace** only the deteriorated feature when it has been determined to be beyond repair.
  - a. Match the existing or original in material texture, dimensions, and design.
  - b. If possible, base the design of reconstructed elements on pictorial or physical evidence from the actual building rather than from similar buildings.

#### *Inappropriate Treatments for Metal*

- Do not remove the patina of metals, such as bronze or copper, since it provides a protective coating and is a historically significant finish.
- Do not use abrasive or aggregate treatments, such as sandblasting, to clean metals.
- Do not use incompatible materials, such as copper roofing with ferrous (iron) nails or fasteners, since the use of incompatible metals causes deterioration.



This metal cornice, storefront, and box bay display window illustrate the use of metal as a practical and decorative material.



Metals are most commonly found in roofing and gutters.



Metal structural ties are a functional feature that may also be decorative.

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### E. Glass

In addition to the historic clear glass used in windows and storefronts, a number of more modern types of glass were introduced in the late-nineteenth and early-twentieth centuries.

Stained and beveled leaded glass were also commonly used in residential and ecclesiastical buildings throughout this era.

Prismatic glass was introduced in the 1890s and was primarily used for storefront transoms through the 1930s. These molded glass tiles reflected light into the recesses of the building and were typically joined together in a process, similar to that for stained glass, using zinc coming.

The popularity of pigmented glass panels sold under brand names such as Vitrolite and Carrara Glass dates to the early twentieth century. Technological advances allowed existing materials to be used in new ways and contribute character-defining materials synonymous with the Art Deco, Streamline and Moderne architectural styles.

These large panels of colored glass were frequently applied to the facades and storefront areas of older commercial buildings and were often combined with metal surfaces in the mid-twentieth century. In some instances, the changes made in the early decades of the twentieth century now add their own significance to the history of the building and should be preserved.



A recently rehabilitated example of a pigmented glass storefront. These glass panels in different colors were a very popular cladding for storefronts in the mid-twentieth century.



An original prismatic glass transom window located above the storefront windows diffuses the light and helps to illuminate the store interior.





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### E. Glass, continued

#### *Guidelines for Glass*

1. **Retain** original or historic window glazing when possible.
2. **Retain** leaded, stained, prismatic and historic structural pigmented glass.
3. **Replace** original or historic glass with new glass when retaining existing glass is not possible; maintain as many characteristics of the existing glass as possible, such as color, thickness, and method of glazing.
4. **Repair** leaded, stained and prismatic glass with in-kind materials or with glass that replicates the historic appearance.
5. Replacement of a missing or highly damaged structural glass panel on the facade may necessitate the removal a panel from a less conspicuous location. Pigmented structural glass is no longer manufactured, so finding replacement pieces can be difficult.
6. Spandrel glass, an opaque glass available in many colors, may be an appropriate substitute for the historic glass panels if the color, size and reflectivity of the original materials can be approximated.
  - a. Consolidate the original materials to the most prominent location and use substitute materials on less visible elevations.

#### *Inappropriate Treatments for Glass*

- Do not put storm windows over leaded glass windows as heat build-up can cause significant warping of the lead joints in the historic window.
- Do not put tinted ultraviolet (UV) coatings on windows as it changes the historic appearance of the window.

The evolution of the technology of glass can be seen in the progression from small-paned windows like those in the Stone House Tea Room (right) to the large plate glass used in the more modern storefronts (below).



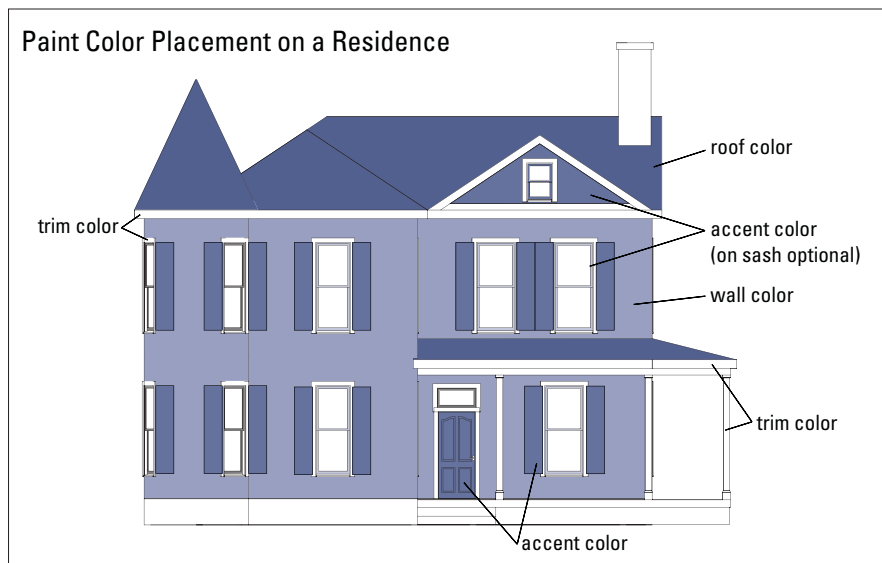
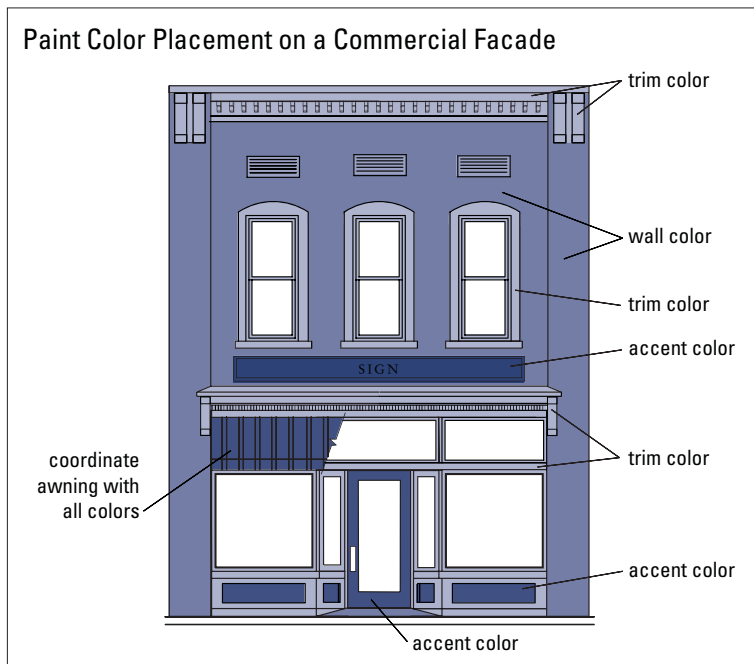
The ancient art of stained glass gained popularity in the mid-nineteenth century due to increased mechanization of the glass-making process. This example is from St. James Episcopal Church on Cornwall Street, NW.



These regularly shaped small panes of colored glass are held in place by lead comes to create a Gothic-arched leaded glass window.



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### F. Paint and Paint Color

A properly painted building accentuates its character-defining details. Painting is one of the least expensive ways to maintain historic fabric and make a building an attractive addition to the historic district. All changes in exterior paint color must be approved but may be approved administratively by the Preservation Planner.

In many instances, buildings are painted inappropriate colors or colors are placed on the building incorrectly. Some paint schemes use too many colors, while others paint all building elements the same color – neither one of these is a preferred treatment.

#### *Guidelines for Paint and Paint Color*

1. Select a color scheme appropriate to the time period in which your building was constructed and that is compatible with adjacent structures.
2. Treat similar elements with the same color to achieve a unified rather than overly busy and disjointed appearance.
3. Paint unpainted aluminum-frame storm windows and doors to match other trim.
4. Consider professional paint analysis to determine the original and later colors.
5. Use only scraping, hand or mechanical sanding, or a heat gun, if it is necessary to remove paint from a surface. Only use a heat gun on solid surfaces that do not have air pockets behind them, since it creates a fire hazard. Follow all environmental regulations.

### Paint Types

*Water-based or Latex Paints:* Latex paints are primarily based on the suspension of particulate droplets of acrylic or vinyl resins dispersed in water. Latex paints permit easy application and clean-up. Their durability and color retention, however, tends to be inferior to oil-based or alkyd paints.

*Oil-based or Alkyd Paints:* Oil-based or alkyd paints generally consist of a drying oil or thinner and various combinations of non-volatile oils and resins. Their durability, flexibility, adhesion and color retention are typically superior to latex paints. Oil-based or alkyd paints are often recommended over latex paints for historic buildings.

*Note:* Do not apply a latex paint over oil-based or alkyd paints without a primer intended for such use. Due to their different physical properties, latex and oil-based or alkyd paints are not compatible with one another and will result in the failure of the latex paint.



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### F. Paint and Paint Color, continued

#### *Inappropriate Treatments for Paint and Paint Color*

- Do not paint masonry that is unpainted or that has had most of its paint wear away.
- Do not use rotary drill attachments to remove paint.
- Do not use abrasive or aggregate treatments such as sandblasting or high-pressure water treatments to clean or remove paint.
- Do not use heat guns to remove paint if there is an air pocket behind the painted feature. These methods of paint removal have a high potential to ignite the paint, painted surface, or debris in the air pocket behind it.
- Do not use blow torches or open flame to remove paint or other coatings because it creates a fire hazard and may create toxic lead fumes.
- Do not use overly bright and obtrusive colors.
- Do not use waterproof, water-repellent, or non-historic coatings on uncoated masonry. They often aggravate rather than solve moisture problems. Exceptions to this may include:
  - a. The use of a breathable water-repellent coating on selected areas of porous, soft, incompletely fired brick to prevent further deterioration after all necessary repointing and repair has been completed.
  - b. The use of an anti-graffiti coating on masonry areas that have seen repeated vandalism and where improved lighting and other security measures have not been successful.
- Do not use spray-on siding or coatings such as liquid vinyls or liquid ceramics.
  - a. Installation: Many of these coatings require that the substrate be pressure-washed prior to installation. Pressure washing forces water into the structural system of a wood frame building, and, even if it appears upon visual inspection to be dry related problems such as rot and mold may result.
  - b. Permeability: These coatings do not allow historic structures to properly disperse moisture and may cause an accelerated rate of structural decay hidden by the coating.
  - c. Diminishment of Details: The thickness of these coatings may obscure character-defining details of historic woodwork and masonry.
  - d. Reversibility: This product has not been shown to be easily removable, therefore, causing a negative impact to the historic fabric.

#### **Inappropriate Colors**

- Overly intense or primary colors not compatible with the subdued colors of the natural materials typical of traditional construction are not appropriate.
- Gold, silver, and gold- or silver-flecked paint is not appropriate.
- The use of color schemes that reflect other regions are historically incorrect therefore are not appropriate.
- The use of an overabundance of colors and the use of colors on details so that the details overwhelm the building are not appropriate.

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### Appropriate Colors

See *Chapter III* for more information on Leesburg's architectural styles

#### *Eighteenth and Early-Nineteenth Century*

- Main Structure: various shades of white, off-white, beige, gray and deep red are appropriate body colors. Federal high-style examples might have used secondary colors on the main house. Greek Revival frame buildings were often painted white with green or Spanish-brown trim
- Secondary buildings: may have been whitewashed, left unpainted, or possibly painted white or painted Spanish-brown (reddish-brown)

#### *Mid- to Late-Nineteenth Century*

- Main Structure: the Queen Anne and Italianate styles favored natural earth tones such as greens, rusts, reds, and browns.
- Window Sash: was often painted a dark color such as deep red, chocolate brown, dark green, olive, dark grey, or black to give it an appearance of receding into the facade.
- Shutters: were painted a dark color, lighter than the sash

#### *Early-Twentieth Century*

- Main Structure: the Colonial Revival and American Foursquare style dictated softer pastels such as white, light grey, and yellow. The Craftsmen/Bungalow style favored earth tones.

#### *Roofs*

- Tin Roofs: Spanish-brown, dark green, dark grey, and black
- Wood Shingle Roofs: left natural or painted Spanish-brown

#### *Iron Work*

- Can be painted black, blue/black, or dark green.



A Greek Revival house (above), painted a typical white with dark shutters.



Mid- to late-nineteenth century buildings were often painted in natural earth tones with colored window sash and accent colors on woodwork (left).



Foursquare and Colonial Revival houses (below) used softer colors with white window sash.