



# *Ludlow Historic Design Guidelines*



*Revised January, 2021*

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## Architectural Overview

The Historic District of Ludlow, Kentucky contains an excellent collection of early 19<sup>th</sup> century through early 20<sup>th</sup> century urban house styles and commercial buildings. The area is significant not only for its quality and quantity of architecture but also for its display of the evolution of styles during the development of the city. Commercial and residential structures can be found in all types of architectural styles, including Victorian, Italianate, Queen Anne, Stick, Shingle, Craftsman, American Foursquare, Bungalow, and simple vernacular.

## Design Review Guidelines Summary

The overall approach in sound preservation guidelines is to respect the character of the historic neighborhood. This principle does not prevent changes to a historic building or neighborhood, but does require careful planning before making repairs and alterations, undertaking demolition, or designing new structures. The following design review guidelines are written to provide the Ludlow Urban Design Review Board (UDRB) and building owners with recommendations for restoration and remodeling which are in keeping with its architectural character and add to the economic value of the property and the Historic District.

The basics in design guidelines are:

- Original qualities and character of a building or structure shall not be destroyed.
- Removal or alterations to historic materials shall be avoided.
- Repair of historic fabric is preferable over replacement. Repair and replacement shall be based on duplication of features and materials.
- New additions or alterations shall not detract from the overall architectural character of a property.
- The cleaning of historic structures shall be undertaken with the gentlest means possible.
- New design shall be compatible with historic structures.

The recommendations which follow are based on these important basic preservation principles and are specifically designed for the historic buildings of the Historic District of Ludlow. These guidelines are also based on the Secretary of the Interior's Standards for Rehabilitation which are guidelines established by the U.S. Department of the Interior for historic buildings and areas.

These guidelines can be located at the following website:

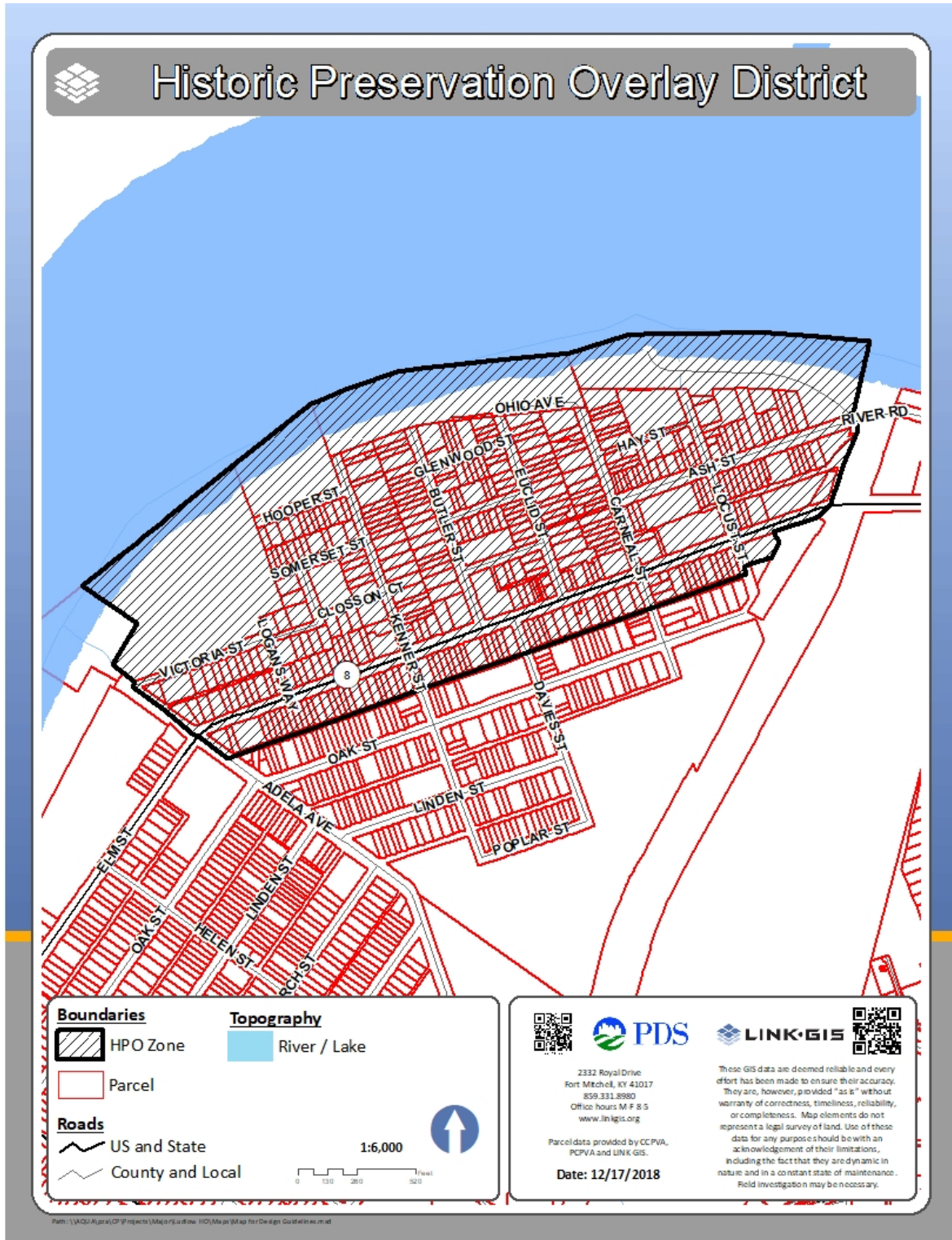
<https://www.nps.gov/tps/standards/rehabilitation/rehab/stand.htm> is located in the Appendix.

## How to Use These Guidelines

The Ludlow Historic Design Guidelines are intended to assist property owners, residents, and contractors when planning exterior projects to properties within the Ludlow Historic Overlay. These guidelines should be consulted at the earliest possible phases of a project to ensure a project's success. This document provides guidance for all types of exterior projects, additions, new construction, and demolitions. The Urban Design Review Board and Historic Preservation Officer will use these guidelines as a basis for any decision rendered for projects requiring a Certificate of Appropriateness. In addition to providing guidance for projects that require approval, these guidelines also provide guidance for other type of projects that do not require approval.

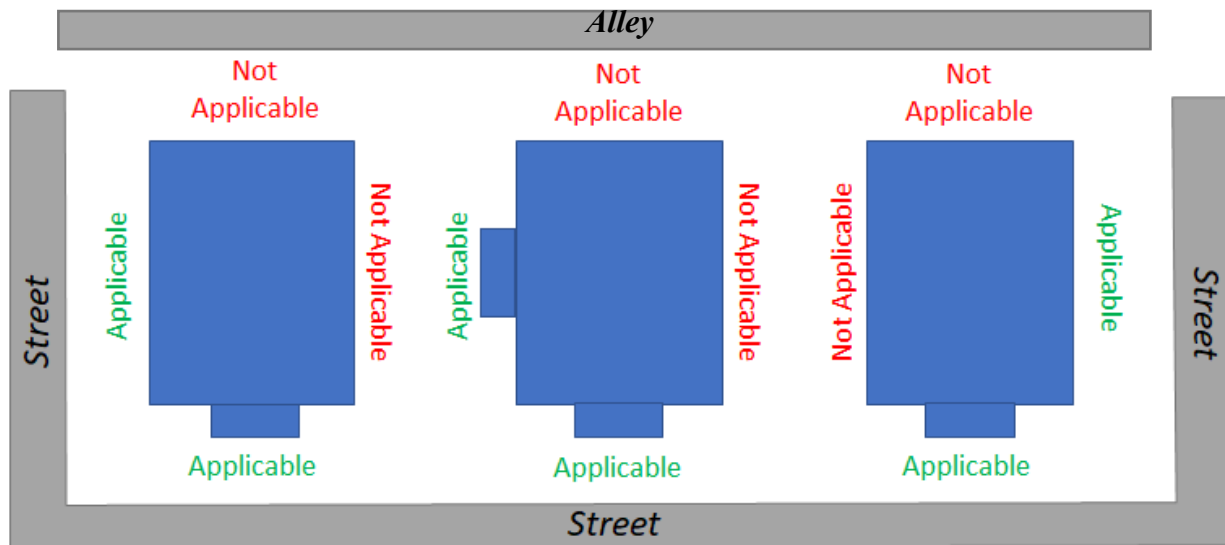
# Planning Your Project

## Historic Preservation Overlay District Map



## Applicability

The Ludlow Historic Design Guidelines are applicable to any project within the Ludlow Historic Preservation Overlay District which involves exterior changes, alterations, additions, demolitions, or new construction. It is the intent of these guidelines to only be applicable to the sides of structures facing a public street and interior sides where there is a protruding entrance or other significant architectural features that are visible from the public street as determined by the Historic Preservation Officer or the Urban Design Review Board. These guidelines will not be applied to the sides of structures which do not face a public street, such as the rear or a side with no protruding entry feature. For the purposes of this section, public alley ways are not considered streets. (As illustrated below)



## Defining Your Project

### **Routine Maintenance and Repair (no approval required)**

*Routine Maintenance* generally involves the least amount of work needed to preserve the historic materials and features of a building. For example, maintenance of a wood-sided building would include scraping, caulking, and painting.

*Repair* to historic material, such as wood siding, generally involves patching and piecing-in with new material that matches the historic material in type, design, dimension, texture, detailing, and exterior appearance (in-kind).

*Replacement* of sound or repairable historic material is never recommended; however, if the historic material cannot be repaired because of the extent of deterioration or damage, the preferred treatment is always replacement with new material that matches the historic material in type, design, dimension, texture, detailing, and exterior appearance (in-kind)

### **Material Change (approval required)**

Any change in any exterior building material. Some examples include:

- Replacing a slate roof with shingle

- Replacing wood siding with vinyl siding
- Replacing original wood windows with vinyl

### **Alteration (approval required)**

Any change in type, design, dimension, texture, detailing, and exterior appearance even if there is no change in material. Some examples include:

- Replacing a portion of or all exterior wood siding with a different “lap” or width

### **New Construction (approval required)**

Installation of any new structure or any addition onto an existing structure. Some examples include:

- Installing a detached or attached garage
- Installing a new building on a vacant lot
- Installing a new fence or wall

### **Demolition (approval required)**

Removal or relocation of any structure or portion of a structure. Some examples include:

- Complete removal of an existing structure either through demolition or removal for placement elsewhere
- Removal of a porch
- Removal of boxed-in gutters and cornice

## **Application Process**

### **What is a Certificate of Appropriateness?**

Within the Ludlow Historic District, any new exterior alterations, material changes, additions, new construction, or demolition of a structure require an approved Certificate of Appropriateness (COA) whether or not a zoning or building permit is required. The COA is issued by the Urban Design Review Board or the Historic Preservation Officer, depending on the type of planned work. If a zoning or building permit is required for exterior improvements, an approved COA must be received before applications can be submitted for those permits. All zoning and building permit applications for exterior improvements submitted to Planning and Development Services (PDS) without a COA will be denied and routed back to the Ludlow UDRB for review.

### **When does a homeowner need a Certificate of Appropriateness?**

A COA from the UDRB shall be required before one may undertake the following actions affecting property in the Historic District whether or not a zoning or building permit is required.

- Alterations to the exterior of the building or accessory structure. Including but not limited to windows, doors, siding, boxed-in gutters, railings, steps or porches
- New construction
- Additions
- Demolitions
- Relocation
- Consult attached UDRB Review Table for full description of work that requires a COA.

### **How long does the Certificate of Appropriateness process take to complete?**

The COA is issued by the UDRB or the Historic Preservation Officer, depending on the type of planned work. Applications which must be reviewed by the UDRB can be approved within four weeks depending on the depth of information presented. Applications which can be approved by the Historic Preservation Officer may be reviewed sooner. The UDRB meets monthly at the Ludlow Municipal Building, 51 Elm Street. Applications which must be reviewed by the UDRB shall be submitted no later than fourteen days prior to the scheduled meeting. Applications can be emailed, mailed, or delivered to the Ludlow Municipal Center.

### **Can a decision of the Urban Design Review Board be appealed?**

Decisions by the UDRB can be appealed to Ludlow City Council during a regularly scheduled Council meeting. Council meetings take place on the second and fourth Thursday of each Month.

### **Preliminary Meeting with the Urban Design Review Board**

Any Ludlow property owner may seek a preliminary informal meeting with the UDRB for technical and aesthetic assistance prior to formally applying for a COA. All informal meetings shall be held at a regularly scheduled meeting. The UDRB shall provide a written account of such technical and aesthetic assistance to the property owner for use in any subsequent application. A formal application and approval are still required prior to work being performed. Examples of technical and aesthetic assistance include:

- Historically appropriate paint colors
- Historically appropriate materials
- Construction practices
- Contextual design assistance
- Reference documentation

## UDRB Review Table

Type of Project	UDRB Review/Approval	Historic Preservation Officer Review/Approval
Accessory Structures front, side protruding, or corner side	Yes	No
Additions,/alterations front, side protruding, or side on corner lot	Yes	No
Additions, /alterations side or rear	Yes if facing street	No
Changes to any UDRB Approved Project, major	Yes	No
Changes to any UDRB Approved Project, Minor	No	Yes
Demolitions / Relocations	Yes	No
Doors, /Storm Doors, front, side protruding, or corner side	Yes	No
Doors, side or rear	No	No
Driveway/parking areas,/curb cuts, new and any changes	Yes	No
Exterior Wall, front, side protruding, or corner side, material and/or style change	Yes	No
Exterior Wall, side or rear, material and/or style change	No	No
Exterior lighting fixtures	No	Yes
Fences/retaining walls, front, side protruding, or corner side	Yes	No
Gutter, box, repair or replacement	Yes	No
Gutter (other than box) or downspout	No	Yes
Masonry (brick or stone) tuckpointing	No	Yes

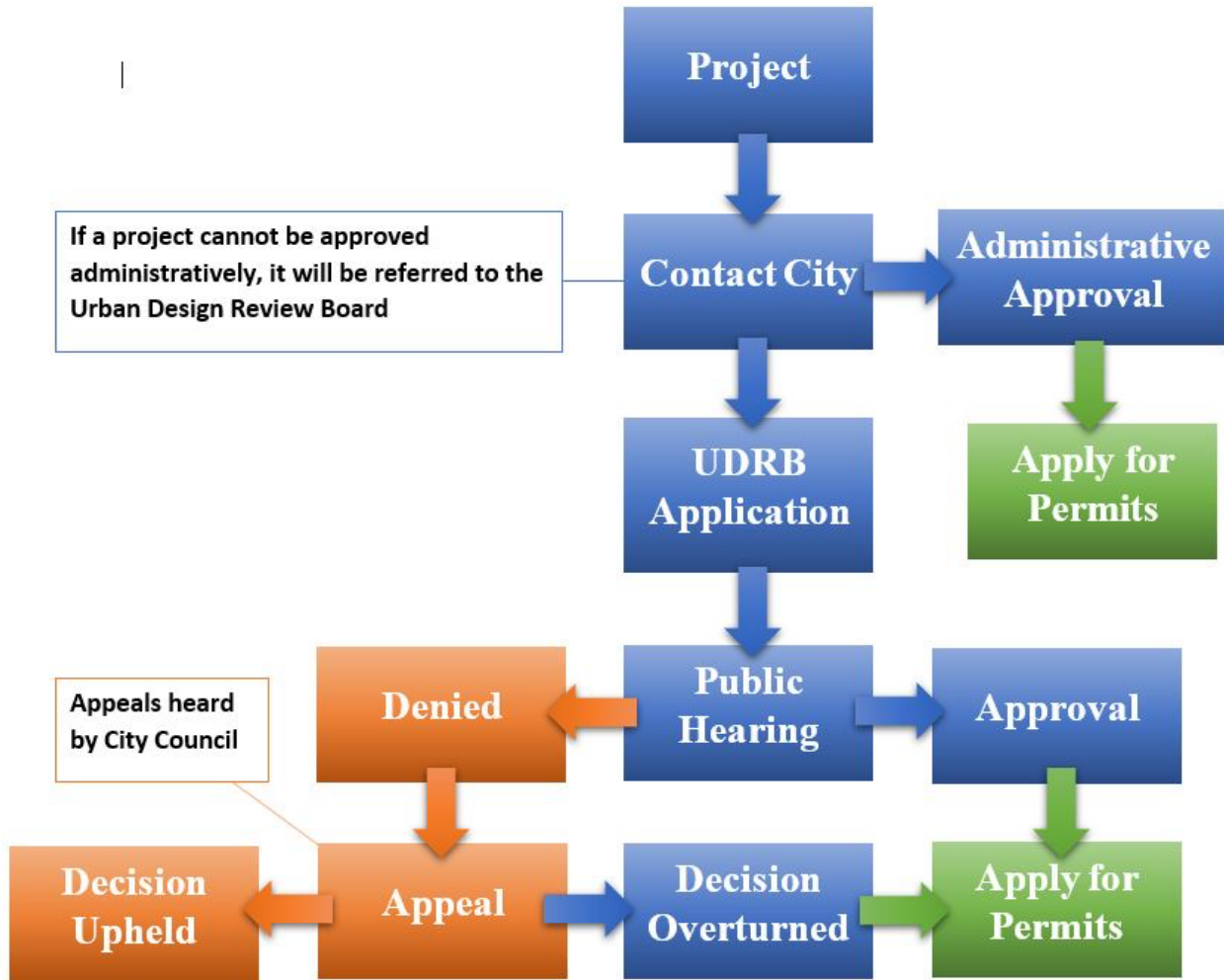


Mechanical systems, solar panels, satellite dishes, utilities and accessories, front, side protruding, or corner side	Yes	No
New Construction/Reconstruction	Yes	No
Ornamental trim or Architectural details, changes/alterations, front, side protruding, and corner side	Yes	No
Ornamental trim or Architectural details, changes/alterations, side and rear	No	No
Painting if brick or stone has not been painted	Yes	No
Porches, railings, and steps front, side protruding, or corner side	Yes	No
Roof, pitched, material and/or style change	Yes	No
Roof, flat, material and/or style change	No	Yes
Roof decks and roof structures front, side protruding, or corner side	Yes	No
Routine maintenance or repairs, matching materials and styles (except windows)	No	Yes
Signage/Awnings, new or alteration to size, shape, or lighting front, side protruding, or corner side	Yes	No
Signage/Awnings, face changes	No	No
Shutters, front, side protruding, or corner side	Yes	No
Shutters, side or rear	No	No

Windows, replacement, change in material/size/color/configuration front, side protruding, or corner side	Yes	No
Windows, replacement, same material/size/color/configuration side and rear	No	Yes
Windows, storm, new or alteration front, side protruding, or corner side	Yes	No
Windows, storm, new or alteration side and rear	No	Yes
Windows, storm, replacement in kind	No	No

## Process Flow Chart

*Encouraged: A preliminary meeting with the Urban Design Review Board to receive technical assistance prior to filing a formal application*



## Federal and State Incentives

Federal and state governments both offer historic tax credits to owners of historic properties who are investing in their properties.

- **Federal:** Any income producing property that has been individually designated by the National Register or is a contributing resource within a district that has been designated by the National Register is eligible for a federal investment tax credit.
- **State:** Income and non-income producing properties meeting the same historic criteria as above, including owner-occupied residences, are eligible for state tax credits through the Kentucky Historic Preservation Tax Credits program.

Where a property is eligible for both federal and state tax credits, the two types may be used in tandem. All projects seeking to qualify for tax credits must at a minimum meet the **Secretary of the Interior's Standards for Historic Preservation**. Please contact the City of Ludlow for additional information regarding applying for tax credits.

# Guidelines for Residential and Commercial Structures.

## Architectural Ornamentation

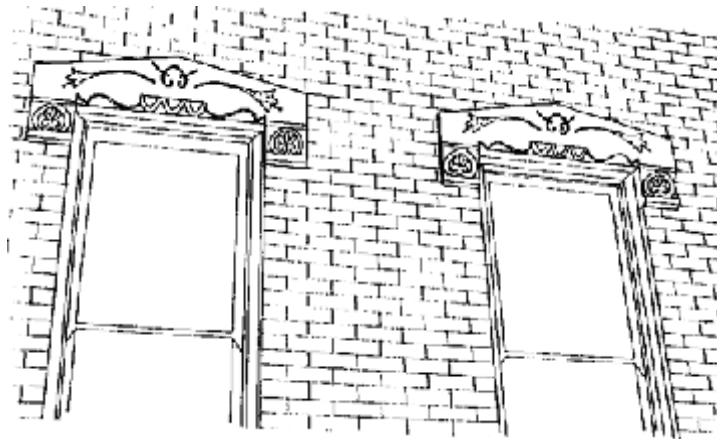
The Ludlow Historic Overlay contains a wide variety of architectural ornamentation spanning over 100 years and illustrates the evolution of architectural styles during this period. The retention of this ornamentation is an essential part of retaining the district's unique character.

Common ornamentation on Italianate buildings are sheet metal, stone or wood cornices at the roofline; sheet metal, stone or wood hood molding around doors and windows; brick or stone quoining at the corners of buildings; and decorative wood panels at eaves and porches. Cornices are often quite varied with large brackets, dentils, modillion blocks and other features.

Queen Anne or Stick and Shingle style buildings often feature extensive ornamentation and varied materials. In addition to milled porch columns and balusters, Queen Anne residences feature wood shingles or slate shingles laid in decorative patterns; wood panels cut in a variety of designs, and milled panels beneath the eaves. Queen Anne residences from the early 20th century often display Doric or Ionic porch columns and eave trim of Classical derivation.

On early 20th century homes, decoration generally became simpler in design, especially on the popular "Foursquare" designs built in the Colonial Revival era. Decorative trim is generally based on classical ornamentation such as modillion blocks, dentils, volutes and pilasters and columns in the Doric, Ionic and Corinthian styles. These are most often of frame construction although some column capitals are of terra cotta, a fired clay material.

Bungalow and American Foursquare designs in the district have more restrained architectural detailing and ornamentation such as large brackets at the eaves, exposed rafters and wood shingles in upper facades. Decoration is often expressed in stained or leaded glass doors and windows.



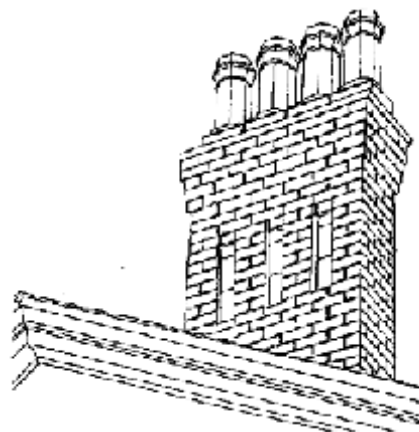
**Example of Italianate decorative window hood moldings.**



**Example of sheet metal cornice design common in the district.**



**Example of a Palladian attic window.**



**Example of a corbelled chimney.**

## Guidelines

- Architectural ornamentation shall be retained, repaired where necessary with matching materials, and maintained. Removal shall only occur in cases of substantial deterioration and every effort shall be made to replicate removed elements with materials and design to match the original.
- All replacement materials shall be similar to the original materials of the ornamentation or be appropriate to the period.
- Architectural ornamentation inconsistent with the style of the building shall not be permitted.
- Original exterior lighting on porches and exterior facades shall be retained. New lighting shall either conform to the style of the building or be frankly contemporary.

## Chimneys

Brick chimneys and clay chimney stacks are common features of buildings in the Ludlow Historic Overlay. Chimneys were and still may be essential parts of a house's heating system as well as a significant architectural feature. A number of residences in the Ludlow Historic Overlay have decorative exterior chimneys featuring corbelled brickwork and terra cotta clay chimney pots. Chimney stacks from the late 19th century were both simple and decorative in design.

Exposure to wind, rain and pollutants often results in deterioration of a chimney's brick and mortar. Improper care of flashing around a chimney can also result in deterioration. Common repairs to chimneys include repointing the existing brick, replacing the existing chimney with a new brick chimney or adding slate or metal chimney caps. Because of their exposed condition, chimneys may be tuckpointed with a mortar using a somewhat higher proportion of Portland cement.

While some of the past chimney repairs on buildings may match the existing brick, other buildings display contrasts in brick color and texture. Other historic chimneys have been removed and replaced with brick inappropriate in color and texture. It is best to return to the size and color of the original brick and mortar, if possible.

Chimney caps are often used to deter sparks from roofs and act as a barrier against rain. Clay chimney caps are most appropriate for homes in the Ludlow Historic Overlay. The use of slate caps or small metal caps may also be allowable. Clay chimney caps are best for their variety of styles, are made of a long-lasting material, and they resist sulfuric acid, burning and corrosion.



**Example of clay chimney caps.**

#### Guidelines

- Chimneys shall be maintained and inspected regularly for deterioration.
- Chimney repair and replacement shall match the existing mortar and brick color and texture.
- Removal of brick chimneys and replacement with metal or other materials shall not occur.

#### **Driveway/Parking Areas/Curb Cuts**

Buildings in the Historic District are frequently built close together on narrow lots. Within such a closely built context, green space is an asset. Also, it is important not to obscure the view of the primary facades of buildings within the Historic District. Additionally, less driveways across sidewalks make for a safer, pedestrian friendly city. Therefore, new parking areas in front yards and coinciding curb cuts are not permitted.

Many public alleys are available to provide rear access to buildings. Access by alleys is preferred over new driveways from the main street. However, driveways on the sides of buildings and coinciding curb cuts are allowed. New parking areas on those driveways shall be located behind the front plane of the building.

A COA is required for resurfacing or altering any existing drives and each will be treated on a case-by-case basis. Preferred materials include concrete, patterned concrete, concrete pavers, or brick. Asphalt paving shall not be used.

#### **Entrances and Doorways**

The Ludlow Historic Overlay displays a wide variety of entrances on the main and side facades. Doors have always been considered one of the main focal points of the building and often have been embellished with decorative panels and molding. Italianate and late Victorian period residences often display four panel doors of wood and more expensive homes have elaborate



wood panels and raised moldings. Large single light glass and frame doors became popular in the early twentieth century, with many displaying stained glass panels or leaded glass sidelights and transoms.

Door surrounds are also important elements of entrances and many early buildings have entrances with molded arching of wood, stone, or sheet metal. These are often highly decorative and add greatly to a building's design.

Retention and repair of original doors is of primary importance to the character of an historic residence and helps define a building's particular style. Replacement of historic doors with doors of modern design will always detract from the appearance of the residence. Sidelights, transoms, and door surrounds are important features of entrances and original elements should be retained. Sidelights and transoms should not be covered over or enclosed.

All historic hardware such as locks, hinges, and doorknobs should be retained. If mechanical elements of locks are badly deteriorated, new locks and hardware based on historic designs are readily available from several mail order companies.

Screen doors are common additions to historic entrances. The most appropriate screen doors for buildings in the Ludlow Historic Overlay are of wood construction rather than of aluminum or other metals. Wood screen doors are available from several companies in the area or can be custom made. The wood on screen doors may be either painted to match the adjacent door trim or stained.

Buildings throughout the Ludlow Historic Overlay have exterior storm doors, which have been added in front of the original historic door. If property owners wish to apply storm doors, it is recommended that they be as compatible as possible with the historic entrance door. This can be accomplished by the use of wood frames or anodized or painted aluminum frames to match the original door surround, and the use of storm doors with large expanses of glass to allow visibility of the historic door. "Raw" or silver aluminum storm doors should be avoided or if used, the metal should be primed and painted to match the historic door or surround.

The use of security storm doors which have large expanses of metal grillwork should not be used on the primary entrance or other entrances on the main facade. These types of doors are acceptable for rear doors or side doors which are not readily visible. Security doors which have limited amounts of metal grillwork and large expanses of glass may be considered for primary entrances.

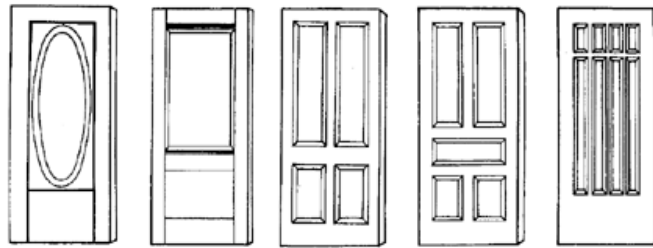


**Example of an original Italianate door surround.**

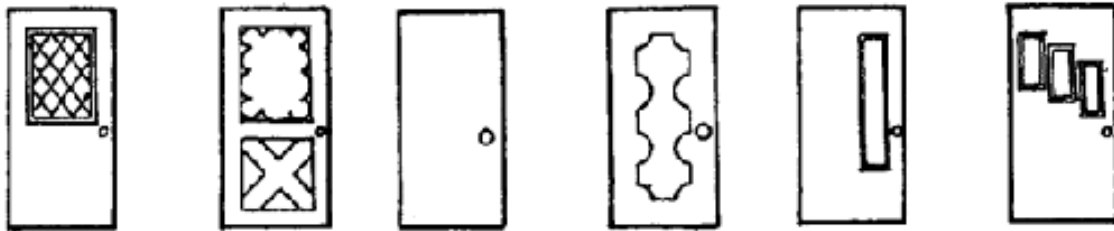
#### Guidelines

- Original doors shall be retained and maintained through continued repair and maintenance. Wood doors which were never painted shall remain unpainted. Deteriorated or missing elements should be replicated in kind with new frame or glass to match the original. Locks and other hardware should be repaired where practicable. Where retention is not possible, new locks based on historic designs are available.
- Enclosing of transoms and sidelights shall not occur. Original elements of transoms and sidelights shall be retained.
- The installation of modern flush doors or variations out of keeping with the character of the house shall not occur.
- New doors with ornate or elaborate metal designs shall not be installed.
- Door openings shall never be reduced, filled in or enlarged on the main or side protruding facades. Alterations at sides and rear entrances are discouraged.
- The removal of wood or brick elements for the addition of a new door on the main or side facades shall not occur. The removal of brick or wood elements at rear facades is discouraged but allowable if not readily visible from the street facade (s).
- If replacement of an historic door on the main facade is necessary, the removal of an original door from the side or rear facades to the main entrance is acceptable providing the doors match in appearance and size.
- Some buildings have lost their original main entrances and now display modern doors. The replacement of these doors with doors in keeping with the building's architectural design is recommended. Many salvage companies or stores specializing in historic architectural features have appropriate replacement doors.
- If screen doors are desired for doors on the main or side facades, they should be of simple wood design with as much open screen area as possible. Screen door framing should be painted the same color as the door to blend together. If horizontal rails and vertical stiles

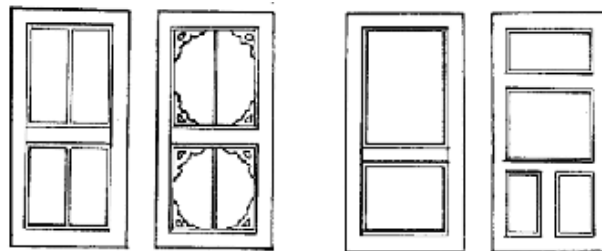
- are built into the door, they should be matched with the rail and stile design on the original door. Screen doors on rear facades may have metal frames, if so desired.
- Storm doors should be of wood or of dark anodized or baked aluminum or painted. Raw or unpainted aluminum frames should be primed and painted to match the surrounding trim.



**Common door designs found in the Ludlow Historic Overlay.**



**Doors to be avoided in the historic overlay.**

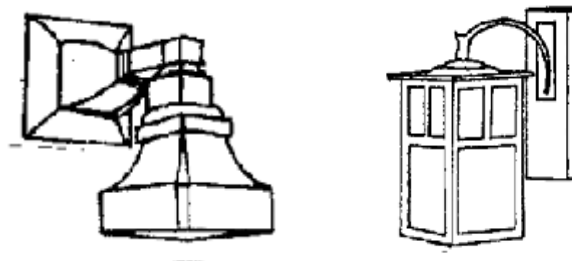


**Appropriate screen door designs.**

## **Exterior Lighting**

Many buildings have lighting fixtures located on the ceiling of the front porch or adjacent to the doorway. Many of these light fixtures are original, especially those on homes built after 1920. All historic exterior lighting should continue to be utilized and rewired when necessary.

The introduction of modern fixtures to replace original lighting should be avoided. Historic fixtures are often decorative and add to the appearance of a structure. The use of imitation “colonial” lighting is not appropriate and should be avoided. In yards, small footlights along walkways are preferable to gas or electric pole fixtures. The overall approach to lighting is to keep it as simple and unobtrusive as possible.



## Exterior Paint

The Ludlow Urban Design Review Board does not regulate the use of paint colors. The following material is presented to guide property owners to make appropriate paint color selections. A Certificate of Appropriateness is not required if the only work being undertaken to a property is painting, unless it is a masonry building that has never been painted in the past.

The majority of buildings in the Ludlow Historic Overlay are of brick construction and have been left unpainted over the years. Paint is often found only at wood eaves, window and door surrounds, and roof dormers. Appropriate paint colors are an important defining feature of a building and aid in defining features of a building as well as highlighting details and trim. In addition to accenting decoration, paint is an excellent preservative and consistent painting and maintenance can add years to the lifespan of a house's architectural ornamentation.

Paint manufacturing and color mixing processes greatly increased in the late 19th century which allowed a wide variety of colors to be available to homeowners. These coincided with the application of wood millwork and pressed metal trim decoration in the Italianate and Queen Anne styles resulting in a shift towards a larger variety of colors applied to homes. Most homes from the 1870s to the early 1900s displayed a wide variety of shades and contrasting colors. Tans, greens, reds and grays were all widely used. Often the siding of the house was painted a light color while darker colors were added to the windows, porch and trim.

After 1900, paint colors were generally more conservative with white and light pastels coming back into demand for the Colonial Revival styles. Bungalow designs often relied on contrasts between brick and stained wood shingles to provide color. Paint colors for Bungalows are generally grays, browns, greens, and other earth tones.

The painting of masonry which has not been previously painted is not permitted. The rich colors and textures of the brick found throughout the Ludlow Historic Overlay is an important defining feature of its character. The use of contrasting materials on facades such as brick, stone, and terra cotta are significant architectural elements and should never be painted a uniform color. The application of paint can decrease a property's character and can also result in increased maintenance costs in future years for repeated paint applications.

Property owners are encouraged to select paint colors in keeping with each home's style and design. Many publications are available which illustrate and detail appropriate paint colors, such

as *Century of Color* by Roger Moss. This and other publications should be referred to if historic paint colors are to be applied, especially to ornamentation.

## **General Color Recommendations**

### **Italianate 1860-1890s**

Body of House: unpainted, medium gray, dark brown, dark red or dark green.  
Ornamentation and Trim (cornices, porches, hood moldings, windows, shutters, eaves vergeboard): dark green, white or dark brown

### **Late Victorian period, 1885-1910**

Body of House: medium gray, dark red, dark blue, dark green or brown.  
Ornamentation and Trim (windows, shutters, shingles and vergeboard): dark gray, dark brown, olive green and dark red.

### **Bungalow and American Foursquare, 1910-1940**

Body of House: often unpainted with stained shingles, brown or dark red.  
Ornamentation and Trim (eaves, brackets, windows): white, light yellow, gray, light green.

#### **Guidelines**

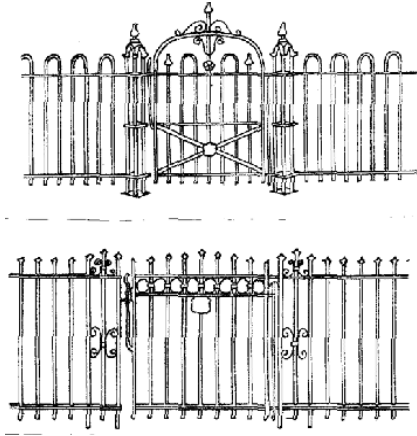
- Intense bright and arresting colors such as fluorescent green, orange, yellow and similar shades are not recommended.
- When removing paint from wood, use hand scraping, chemical solvents or a heat gun. To remove multiple layers of paint in a single application, a chemical treatment such as Peel Away by Diedrich Technologies is appropriate. Be aware that damage to wood can be caused by inappropriate use of heat guns. Do not sandblast wood siding or brick under any circumstances.
- See masonry guidelines for additional information on brick painting.

## **Fencing and Retaining Walls**

Fencing has sometimes been used in the Central Historic District to delineate property lines and to separate front yards from the sidewalk or street. Cast iron fencing is especially abundant in the area due to the availability of iron fences from the Stewart Iron Works and Buecher Company which were local manufacturers. Hundreds of small fences were installed along the sidewalks and between lot lines throughout the neighborhood in the late 19th and early 20th centuries. The majority of these are hoop and dart variations two to three feet in height. Wooden picket fences of two to three feet in height are also found in the Historic District installed along the sidewalks and between lot lines.

Along some blocks of the Historic District are residences which are located on lots one foot to three feet above the level of the sidewalk. Some of these residences have lawns which slope down to the sidewalk, while other lawns terminate in retaining walls at the sidewalk level. A

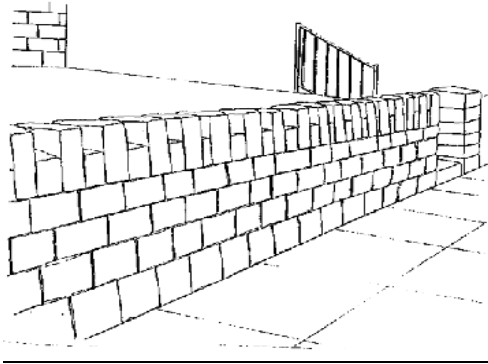
number of original retaining walls of stone or hollow core concrete block construction still exist, as do modern retaining walls of concrete or brick. Wood timbers are not appropriate for use in the historic district for retaining walls, or as lawn borders or edging. Original retaining walls shall be maintained and repaired where necessary. If new retaining walls are desired, the use of brick or stone is appropriate.



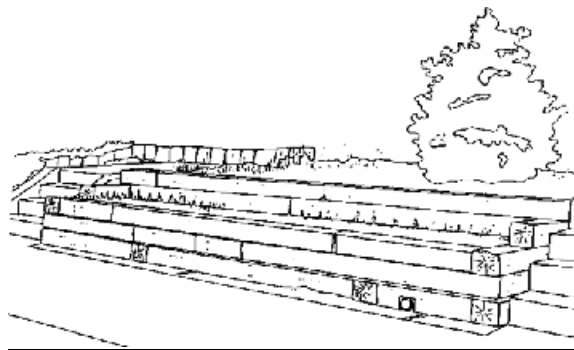
Typical cast iron fence designs found in the district.

#### Guidelines

- Cast iron fences are an integral part of the Central Historic District and shall not be removed for new fence materials. Cast iron fences shall be maintained and repaired where necessary.
- The use of chain link fences on the main facade or readily visible side facades shall not occur.
- A fence located along any portion of a residential property abutting a public right-of-way (except along an alley) may not be greater than thirty-six (36) inches in height or reviewed on a case by case basis.
- Brick fences are rare in the district and the introduction of modern brick fences is not permitted.
- New cast iron, aluminum or wood fences in historical designs are permitted for the district but must conform to the Ludlow Zoning Regulations, Article XIII, “Fences, Walls, and Obstructions to View Regulations.”
- Existing historic fences and walls which may not conform with the city’s zoning regulations shall be permitted to remain and to be preserved and restored.
- Original retaining or landscaping walls shall be maintained and repaired where necessary. New construction of retaining or landscaping walls shall be of stone or brick.
- Readily visible rear or side yard fencing may be of wood plank construction. In the rear yard area, which may extend not more than three feet perpendicular to the rear corner of the main structure of a residence toward the public right-of-way, fencing may be up to seventy-two (72) inches in height, so long as the height of the fencing does not create an impediment to safe traffic flow.



Original stone retaining walls shall be preserved and maintained.



Landscaping materials such as wood timbers shall be avoided on the main facade.

## Foundations

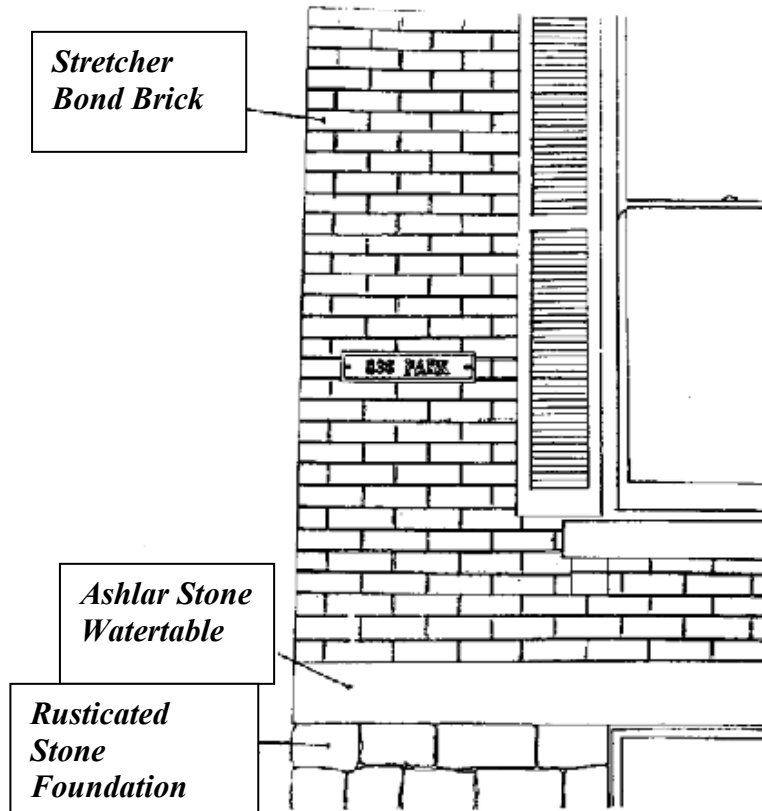
Foundation walls, besides being the structural basis of a building, often are important architectural elements of historic structures. Caring for and preserving a structures' foundation is a must for providing proper maintenance. The following must be followed to maintain these important features.

### Guidelines

- Foundation walls must be preserved and maintained.
- Foundation walls must be kept free from any vegetation whose root system could undermine the integrity of the structure.
- The grade of the property should slope away from the foundation.
- Foundations should be inspected regularly for structural soundness and moisture issues.
- All historic foundation materials, including brick, stucco, concrete block, poured concrete, and stone foundations must not be altered or concealed with any new or different type of material.
- When a foundation (or portion of) must be replaced, then the replacement materials must match the historic materials as closely as possible.
- Unpainted foundation walls must remain unpainted, unless severe deterioration has led to a patchwork of masonry surfaces and mismatched mortar.
- Any painted foundation surface must remain painted.

## Masonry

The overwhelming building material in the Ludlow Historic Overlay is brick which is used for exterior structural walls or veneers on residences. Brick is also used for foundations, decorative inlays and detailing, chimneys, porch piers, and other architectural elements. Stone is also widely used with limestone and sandstone employed for foundations, window lintels and arches, and decorative detailing.



**Example of masonry construction typical of residences in the district.**

All masonry materials and detailing shall be maintained, repaired, or if replacement is necessary, replaced with masonry or mortar to match the original. Deterioration of brick is most frequently caused by moisture infiltration. This is usually due to faulty gutters, downspouts, leaky roofs, or other structural problems. Cracks in brick may also exist due to settled foundations, insufficient support over doors and windows, or mortar failure. With the exception of severe cases of deterioration, most typical masonry siding and ornamentation can be repaired or replaced by professional bricklayers and masons.

Masonry buildings and details are a major part of the historic character of the Ludlow Historic Overlay and the following guidelines provide proper cleaning, repainting, and sealing recommendations.



## Guidelines

- Use the gentlest means possible for cleaning masonry. Water and detergents are the least harmful to brick and stone surfaces.
- Low to moderate pressure water (30 - 60 psi) or steam cleaning of masonry surfaces is permitted. Chemical cleaning may also be acceptable for the removal of stains and paint. Cleaners such as muratic acid, caustic soda or lye shall not be used on historic brick surfaces.
- Abrasive or high-pressure cleaning methods shall not occur. Sandblasting of historic brick is not permitted.
- Masonry repair, replacement or repointing shall match the original brick and mortar in color, texture and character.
- Masonry repointing shall be undertaken using a soft mortar composition, and hard mortars such as Portland Cement shall not be used. See attached mortar recipe.
- Waterproof coatings and water repellent coatings are not permitted except under extreme circumstances.
- Masonry walls shall not be covered with any type of applied siding including, but not limited to, artificial stone surfaces, stucco, concrete and metal siding.
- Masonry which has not been previously painted shall not be painted.
- Masonry details and ornamentation shall not be removed or obscured.

## General Guidelines for Masonry Cleaning

Masonry cleaning shall be undertaken by the gentlest means possible. Most buildings in the Ludlow Historic Overlay have never been painted and display their original brick and stone surfaces. Over time these masonry surfaces have weathered creating a richness of textures and colors which provides distinction and individuality to buildings. In most cases cleaning of brick and/or stone surfaces may not be warranted. However, if cleaning is desired the following methods are available:

**Water and Detergents** -- This cleaning method is the least harmful to brick and stone surfaces and is relatively inexpensive. This cleaning can be performed by a non-professional although care must be taken not to soak the brick too extensively, and not to wet the masonry too late in the season, when early freezing may occur. For most buildings in the Ludlow Historic Overlay this cleaning method would be sufficient. Low pressure water cleaning is acceptable as long as the pressure is low to moderate, such as 30 - 60 pounds per square inch (psi). Water cleaning above this psi can damage the masonry and mortar and is not acceptable. A garden hose spray nozzle operates around 30-60 psi. It is best to begin at that pressure and gradually increase the pressure until it is effective but remaining below 80 psi. Additionally, a pressure gauge mounted on the nozzle is more accurate than one mounted on the compressor.

**Steam Cleaning** -- This is also a good method for cleaning masonry but is more expensive and the machinery must be operated by a professional. This is a recommended and acceptable cleaning method for buildings in the Ludlow Historic Overlay.

**Chemical Cleaning** -- The use of chemicals to remove paint on brick or masonry surfaces has been popular in recent years and can be an effective cleaning method. This process can be costly,

and professionals must be used who are experienced with this cleaning method and will not etch or scar the masonry surface. The repainting of brick or masonry surfaces rather than removal by chemicals should be considered.

Chemical cleaners do have problems to note which may include:

- A change in the color of the masonry caused by the chemicals, not by the removal of dirt
- They may leave a hazy residue in spite of heavy rinsing
- Chemicals can react with components of mortar, stone or brick to create soluble salts which can form efflorescence
- Historic brick buildings are particularly susceptible to damage from hydrochloric (muriatic) acid.

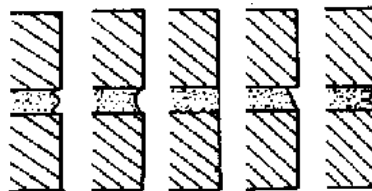
**Abrasive Methods: Sandblasting/Abrasive Blasting/High Pressure Water** -- None of these methods are acceptable alternatives for masonry cleaning. Abrasive cleaning is destructive and causes irreversible harm to the historic building fabric. Abrasive methods remove the hard, outer protective surface of brick making it more susceptible to rapid weathering and deterioration. Additionally, abrasive methods can erode the bond between the mortar and the brick and also can remove portions of the mortar, requiring expensive repainting and masonry repair.



**Effects of sandblasting on brick surfaces.**

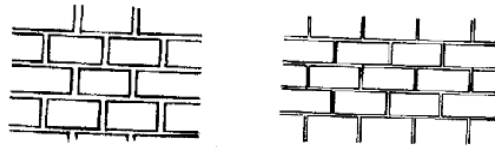
### **General Guidelines for Masonry Repointing**

The mortar used throughout the area to bond the brick is generally a soft composition of lime and sand. This mortar allows for the expansion and contraction of the brick during warm and cold months and joints are recessed behind the face of the brick. Masonry repointing shall always be of soft mortar composition, and hard or premixed mortars shall not be used. The use of hard mortars will not allow old brick to expand and contract and results in brick deterioration. This applies more to 19<sup>th</sup> century brick than 20<sup>th</sup> century brick. See appendix for mortar recipe.

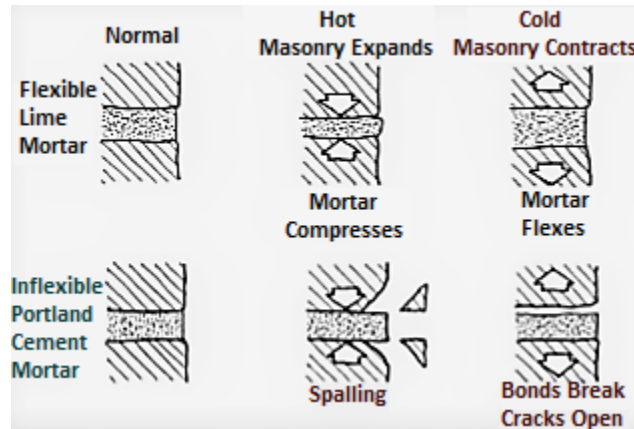


**Examples of appropriate mortar joints.**

Most buildings in the Ludlow Historic Overlay have concave or flush joints and repointing shall follow these profiles. Mortar shall not be applied to cover the face of bricks or obscure detailing.



**Mortar joints should not cover the face of the brick as at left but should be recessed.**



**Characteristics of mortar in expansion and contraction cycles.**

If brick is missing or requires replacement every effort should be made to match the original brick in size, color and texture. This can be accomplished by seeking out salvage companies which have a stock of historic bricks retrieved from razed structures. Brick can often be located which matches the original in most respects. In extreme cases if only a few bricks are required it may be acceptable to remove original bricks from a rear facade for replacement on side or main facades. The rear facade can then be patched with bricks which match as closely as possible. It is generally more difficult to match old brick with modern manufactured bricks but this should also be explored for brick replacement.

### **General Guidelines for Masonry Replacement Sealants**

Sealants on brick and masonry surfaces are not recommended. They have a limited life span and in general have not been found to have a long-term preserving effect. They may also trap moisture within the wall and cause damage to the masonry or interior plaster. Water repellents and waterproof coatings should only be used in extreme cases of damage, such as on sandblasted bricks which have become so porous that paint or some type of coating is essential. If a problem occurs on only a portion of the masonry, it usually is best to treat only the problem area rather than the entire building.

**Waterproof coatings** -- Waterproof coatings seal the surface from liquid water and from water vapor; they usually are opaque, such as bituminous coatings and some paints. If water does enter the wall the coating can intensify the damage because the water will not be able to escape. In cold weather the water in the wall can freeze, causing serious mechanical disruption, such as

spalling. Additionally, the water will follow the path of least resistance, and can result in damage to interior surfaces.

**Water repellent coatings** -- Water repellents keep liquid water from penetrating the surface but allow water vapor to enter and leave the surface through the "pores" of the masonry. They usually are transparent, such as the silicone coatings, although they may change the reflective property of the masonry. As water repellent coatings do not seal the surface to water vapor, it can condense inside the wall at cold spots, producing liquid water, and result in the same adverse effects as described above. Additionally, damage can be done by soluble salts. Salts frequently are present in the masonry and liquid water can dissolve these salts and carry them toward the surface. The water repellent coating prevents the water and dissolved salts from coming completely to the surface and the salts are then deposited slightly below the surface. Over time these salt crystals will grow and develop substantial pressures which will spall the masonry.

**Stucco and Concrete** -- The use of stucco and concrete as sealants is not permitted. In addition to altering the appearance of a structure stucco and concrete can also damage the underlying brick or masonry surface through its bonding process.

### **General Guidelines for Masonry Painting**

The majority of brick and stone surfaces in the Ludlow Historic Overlay have never been painted and the existing colors and textures contribute to the area's overall character. **The painting of masonry which has never been painted is not permitted.** Masonry which has been previously painted may be repainted as necessary.

### **Out Buildings and Accessory Structures**

Ludlow residences in the late 19<sup>th</sup> century had a variety of outbuildings located on the rear facades or adjacent to alleys. The majority of these were stables, storage sheds, or privies of frame or brick construction. Most of these 19<sup>th</sup> century outbuildings were later demolished or razed to make way for automobile garages in the early 20<sup>th</sup> century. Many of these garages were built of frame although the use of hollow core concrete blocks was also popular.

Brick and frame outbuildings which pre-date 1910 are rare and every effort should be made for their preservation. These outbuildings contribute to our understanding of the Historic District's historical and architectural development and their retention is important. For automobile garages, sheds and other outbuildings erected after 1910, residents are encouraged to maintain and repair these structures rather than replace them with modern buildings.

Brick and hollow core concrete block outbuildings should last many years if properly maintained. Frame outbuildings from this period often display deterioration of exterior siding, roofs and foundation. If less than 50% of exterior siding requires replacement on an outbuilding repairs should be completed. If the percentage of exterior siding requiring repair exceeds 50% demolition may be appropriate.

Replacement of outbuildings should be of frame construction. Simple clapboard siding, gable roofs, and multi-light sash windows are encouraged for new outbuildings. New brick or metal outbuildings are also acceptable as long as they are located out of sight lines at the rear of the structure or along rear alleys.

#### Guidelines

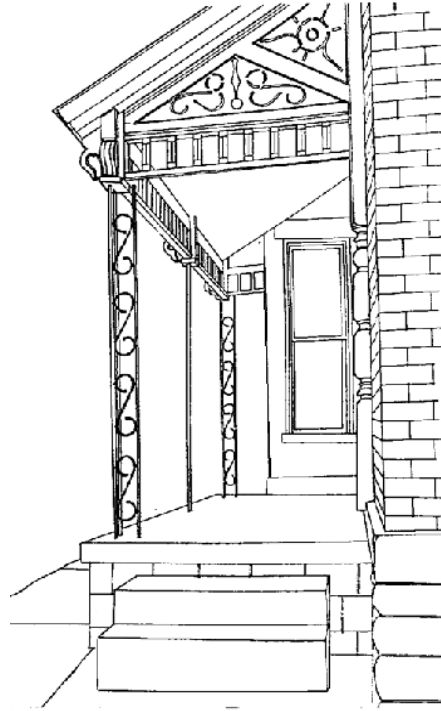
- Pre-1910 outbuildings should be preserved and maintained following the general guidelines applicable to residences in the district.
- Many garages built in the early 20th century contribute to the character of the neighborhood and should be maintained.
- New outbuildings should be simple in design to compliment and blend with the main residence. Modern brick, metal or frame outbuildings should be located to the rear of the main structure or recessed significantly from the street.

### **Porches**

Porches are a feature found on many Ludlow Historic Overlay residential structures. Many of the residences built before 1900 have porches that protrude from the side facades and are recessed approximately five to ten feet from the plane of the main facade. This is especially true of shotgun and double house types and the Northern Kentucky Townhouse, which often have a side entrance seen from the street. The majority of original porches on these residences have Eastlake, Stick, or spindle-style woodwork such as milled porch posts, turned balusters, spindled friezes, and elaborately carved brackets.

After 1900, residences built in the Foursquare and Craftsman Bungalow styles had porches constructed on the main facade. These often extend the full width of the facade and are no more than one-story in height. Most porches consist of wood floor boards resting on a frame substructure which in turn rests on brick or stone piers or a continuous brick or stone foundation.

The retention of the original porch configuration is very important for houses in the district. A porch is one of the main defining features of a house, and it often signifies a building's age and style. Almost all porches are of frame construction and replacement with matching materials is essential. Wood porches should not be replaced with brick, inexpensive ironwork, concrete, or concrete blocks. Thin metal or pressure treated lumber posts are not permitted as replacements for wood posts or columns. Porch alteration compromises the overall appearance of a structure and disturbs its size and scale.



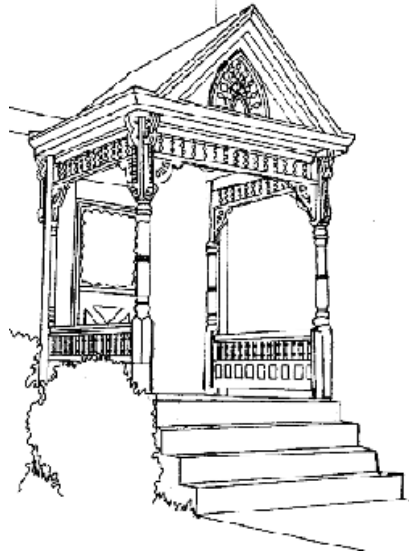
**Wrought iron porch posts are inappropriate changes to porches in the district.**

Porches/decks shall not be added at a location on the main or readily visible side facades where one never existed. Generally, the addition of a porch changes the original character of a building and shall not occur. Where photographic or physical evidence of an original removed porch exists, it is acceptable to reconstruct a porch in a design which is appropriate with the building's architectural style.

**Porch Columns**

In the late 19th century, milled porch posts and columns became popular on Italianate and late Victorian period houses and were readily available due to advances in woodworking machinery. These columns were often highly ornate with attached fretwork or milled panels. Columns were often beveled or "chamfered" at the corners.

In the early 20th century, resurgence of classical styles reintroduced formal Greek and Roman orders in column design. These include the simple Doric design, the Tuscan design, the Ionic order (distinguished by the circular volutes) and the ornate Corinthian design. Most Colonial Revival influenced buildings in the Ludlow Historic Overlay have Tuscan or Ionic columns.



**Example of an original frame porch with ornate columns, spindles, and millwork.**

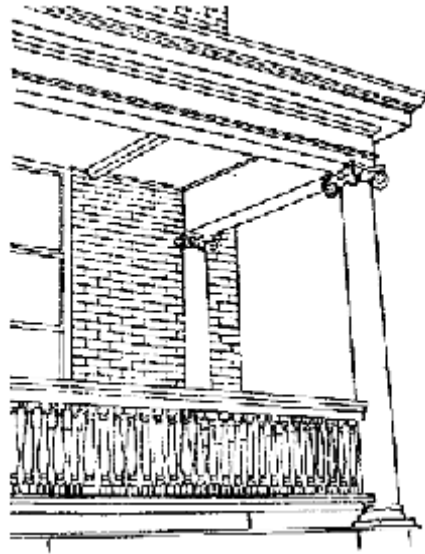
In the early 20th century, after the arrival of the Bungalow, porch columns changed significantly. The most common form is a solid brick pier built in a square or rectangular form. Another popular column is a tapered frame post resting on a raised brick pier. This style porch is found on the majority of post-1910 residences in the Ludlow Historic Overlay. Brick piers were also used to replace earlier porch posts on pre-1910 residences. The retention of these later porch posts is encouraged, however, if porch columns of an earlier period are appropriate and desired these are also acceptable.

### **Porch Floors**

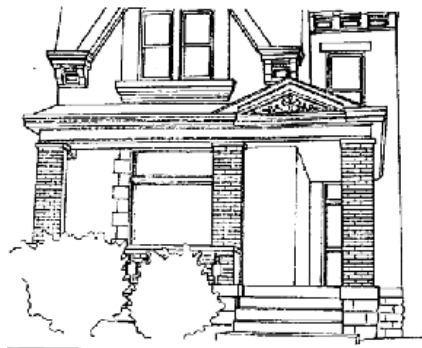
Original porch floors were generally of wood or concrete. The most common type of wood porch floor was made of tongue and groove boards that are interlocked and laid in one direction over structural framework. Wood porch floors require frequent maintenance, and replacement of deteriorated wood floors shall be with like materials. After 1910 concrete floors became common, and these also require periodic maintenance. Cracks in concrete floors should be repaired, and replacement of concrete porch floors shall be with concrete.

### **Porch Railings**

In the late 19<sup>th</sup> century, the availability of sawn lumber enabled property owners to place extensive milled decoration on the exterior and interior of homes. Porch railings were a favorite location for decoration. On Italianate and late Victorian period residences, balusters were frequently milled in a variety of forms and flat interlocking panels were also common. Designs of the early 20<sup>th</sup> century often displayed simple square balusters or classically derived design complementing Doric or Ionic columns. On Bungalow and Foursquare houses, the porch railings were generally very simple with square pickets and rectangular handrails. Appropriate historic materials and styles should be used. Always check with the Building Department regarding required height of porch railings.



**Example of a typical Colonial Revival porch.**



**Example of a late Victorian period residence with added Bungalow style brick piers.**

### **Porch Foundations**

The majority of residences in the Ludlow Historic Overlay have brick or stone foundations. These foundations are generally continuous with few openings except small ones for vents. The major exception is for porches located on the main facades of residences. These spaces were filled with frame or brick such as painted wood lattice or open weave brick patterns.

Painted wood lattice provides ventilation in the house's crawl space and prevents animals and unsightly vegetation access under the house. Most lattice runs at a 45-degree angle with 60 degree and 90-degree angles less common. Lattice should be made from pine, redwood or other soft, knot-free wood. The best is redwood because of its resistance to decay and pressure-treated wood is also durable. Pierced brick walls beneath porches are also practical and solid brick foundations often display metal vents or grilles in the brick to provide air flow in the crawl space.



## **Porch Stairs**

Original porch stairs were generally constructed of concrete, brick or wood. These original stairs shall be maintained and repaired as required. When replacement is necessary, it shall be similar in design and materials to the original stairs.

### **Guidelines**

- Porch elements which are deteriorated shall be retained and repaired where possible.
- Deteriorated frame porch elements which require replacement shall be replaced with wood elements to match.
- Original porches shall not be removed from a main facade or readily visible side facade(s).
- Porches/decks shall not be added at a location on the main or readily visible side facades where one never existed.
- Columns of metal or square pressure treated lumber, shall not be used.
- Porch floors, stairs, and railings of pressure treated lumber shall not be used.
- Synthetic material substitutions may be reviewed on a case by case basis.
- Only wood columns shall be used to replace original wood columns or to restore altered porch supports.
- Porches on main facades or side facades visible from the street shall not be enclosed.
- Enclosure of areas beneath porches is permitted using brick or painted wood lattice panels. Brick patterns in decorative open weaves are appropriate on foundations for new construction and replacement on older homes. Framed painted lattice panels between porch piers is also appropriate.
- Original porch floors of wood or concrete shall be preserved and maintained. Replacement of deteriorated wood or concrete porch floors shall be with matching materials.
- Original exterior stairs shall be maintained and repaired as required. Replacement stairs shall be similar in design and materials to the original stairs.

## **Roofs and Gutters**

The Ludlow Historic Overlay displays a wide variety of roof shapes and roof materials. Roof shapes include gable, pyramidal, hipped, shed and mansard. These roof variations were popular on Italianate, Second Empire, Queen Anne, Colonial Revival and Bungalow styles of the late 19th and early 20th centuries. The roof pitch and details such as intersecting gables, raised platforms, and dormers with vented openings help define a building's character. Alterations to roof forms and detailing on the main facade and side facades should not occur if these alterations will be visible from the major street facade(s).

Residences with slightly pitched gable or hipped roofs or shed roofs may receive skylights or additions under some circumstances. Due to the density of residences on some blocks, the raising of a roof to accommodate additional space, enlargement of attic areas, or the addition of skylights may be allowable in the rear one-half to one-third of a building depending on visibility from the street facade(s). In no instance should these additions exceed one additional story.

Original roof materials during the late 19th century included wood shingles or shakes, standing seam metal and slate. By the early 20th century the use of composition shingles became popular and was the most common roof material after 1910.

Through replacement over past decades the majority of buildings in the Ludlow Historic Overlay no longer retain their original roof materials. All original wooden shingle or shake roofs are gone or covered, as are many of the original metal roofs and some of slate. However, many buildings retain metal standing seam roofs and slate roofs and these elements are important in defining the character of the building.

Metal standing seam roofs were generally composed of copper-bearing steel, coated on each side with a terne alloy of 80% lead and 20% tin. Homeowners purchased roofs in individual sheets which were crimped together to form a watertight seal. Metal nails were then used to attach the metal sheets to the roof rafters. These roofs are durable and often last fifty to seventy years but require frequent painting to prevent rust. Metal standing seam roofs should never be painted with aluminum oxide paints.

The great majority of roofs in the Ludlow Historic Overlay are of composition or asphalt shingles added in the 20th century. These roofs are economical, last twenty to thirty years depending on their grade, and easily are the most available material. All historic roofing materials should be maintained and retained wherever possible. However, it is likely that many of the metal roofs in the Ludlow Historic Overlay are reaching the end of their lifespan and replacement may become necessary. Replacement with a new metal standing seam roof is desirable given their longevity over composition roofs. The costs of such roofs may be prohibitive and replacement with composition roofs is also acceptable.

The replacement of slate roofs is not recommended in most cases. Slate roofs can last indefinitely if properly maintained and repair of individual shingles is often more cost effective than wholesale removal and replacement. The decorative character of many slate roofs also is an argument against replacement. If the slate roof is demonstrated to be deteriorated beyond repair, replacement ~~shall~~ may be allowed subject to review of its ~~condition and disposition of decorative slate tiles~~ proposed substitution material, pattern, and color by the Urban Design Review Board.



**Example of an original mansard slate roof.**

The application of new wood shingles on roofs is appropriate for buildings constructed prior to 1910. The application of new metal standing seam roofs is also appropriate for buildings

constructed before 1910. Bungalow design residences built after 1910 were generally not given these types of roofing materials and their application should not occur except where their original use can be documented.

Many homes in the Ludlow Historic Overlay have roof ornamentation such as cast iron balustrades or finials. These elements are important decorative features and should not be removed. Deteriorated sections should be repaired and retained where possible and removal should only be allowed where these features can be demonstrated to be beyond repair or pose a safety hazard.



**Example of an ornamental iron roof balustrade.**

Roof gutters on buildings in the Ludlow Historic Overlay are generally of boxed or open roof design. Boxed gutters are sunken behind the eaves and are not readily visible, while open or hanging roof gutters are attached to the eaves of the house. Round gutters and downspouts are more appropriate for older homes but are generally harder to find than standard square corrugated gutters and downspouts. All gutters and downspouts should be painted to blend with the surface colors of the building and be as unobtrusive as possible.

#### Guidelines

- Historic roof materials, such as metal standing seam, or slate shall be retained, maintained and repaired when ~~necessary~~ possible.
- The application of composition shingles to replace deteriorated composition or metal standing seam roofs is acceptable on buildings. Dark colors for composition shingles, including dark red, black and dark greens are preferred. Metal standing seam roofs and roofs of pressed metal shingles should be coated with silver galvanizing or painted with appropriate paints formulated for use on metal.
- Wood shingle or metal standing seam roofs shall not be permitted for buildings constructed after 1910 unless documentation for their use exists.
- Roof forms and pitch shall not be altered on any side which faces a street.
- Roof ornamentation such as finials and balustrades shall not be altered or removed.
- Original box gutters and their cornices shall be retained and maintained. When relining box gutters, metal or rubber membrane is recommended. If soffits are damaged, they shall be repaired or replaced with wood to match the original materials.

## **New Roof Decks and Roof Structures**

Roof additions shall be stepped back from the main façade of the building so that no parts of the addition and railings are visible from the street. Roof additions may be allowable in the rear one-half to one-third of a building, depending on visibility from the street facade(s). In no instance should these additions exceed one additional story. Additions shall be sensitive to the character of the building. Additions should blend with the general scale, massing, materials, fenestration patterns, and color schemes of the building.

## **Utilities, Heating and Cooling Units, Solar Energy Collectors, Satellite Dishes, Fire Escapes and Handicapped Ramps**

Heating and cooling units are an integral part of modern residences and their usage shall not be restricted. However, large condensers at the ground level or at roof tops, window air conditioning units, and exterior conduits and ducts should be placed in such a fashion as not to be visible from the main facade(s).

Condensers should never be placed on the main facade. Rear facades are recommended and if placement on a side facade is required the unit should be screened from the street by lattice panels or bushes. Window air conditioning units should be placed on side or rear facades and avoid windows on the main facade. All exterior conduits and ductwork should be placed on side or rear facades and not be readily visible. Roof condensers should be recessed from the main facade and not be readily visible.

A popular energy conservation method is the use of solar energy collectors. Solar energy collectors can aid in reducing bills associated with hot water heaters and air heating units. These solar collectors require large dark metal panels to trap the sun's rays. These are often placed on a building's roof or on a free-standing platform in the yard adjacent to the house. Solar collectors should not be discouraged but it is important that they be placed at the rear roof line, rear yard, or otherwise away from the main facade. These units are obviously non-historic and can detract from a building's appearance. Energy collectors or other modern energy systems should be placed on a side or rear facade not readily visible from the street.

Another accessory structure found in the area are satellite dishes for television reception. The use of satellite dishes is acceptable as long as they are not located on major facades or where they would be readily visible from the street. Rear facades are preferred locations for installation of these devices.

Fire escapes are also accessory structures which have been added to many buildings. Occasionally, these metal fire escapes have been added to the main facades of buildings, which greatly detracts from their appearance. Future installation of fire escapes should occur on rear facades or a section of a side facade that is not readily visible. Fire escapes on readily visible facades shall not be permitted.

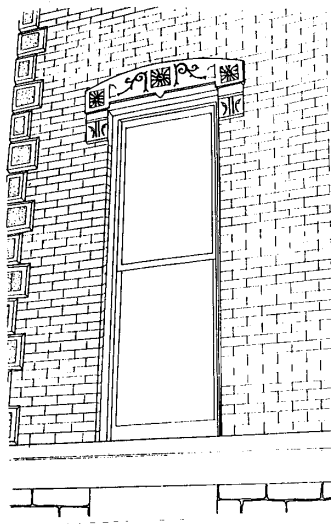
Handicapped ramps are usually graded to a low angle and are constructed to connect with porches or entrances. Ramps can often be incorporated behind historic features, such as railings, to minimize the visual effect. The designs should be kept simple and should not detract from the integrity of the building. The ramp can be faced with a variety of materials, including wood, brick and stone. Often the type and quality of the materials determines how compatible a ramp design will be with a historic property. A secondary or rear entrance is the preferred location for a handicapped ramp.

#### Guidelines

- All heating and cooling mechanical units shall be placed away from the major facade(s). This includes window air conditioning units, ground and roof condensers and exterior conduits and ductwork. Condensers on the sides of the house shall be screened.
- Solar energy collectors and satellite dishes are appropriate if the units are placed on a rear or side facade and are not readily visible from the street.
- Fire escapes shall only be added on rear or side facades, unless otherwise required by fire codes.
- Handicapped ramps are allowable under the Americans with Disabilities Act and the design shall be considered on a case by case basis.

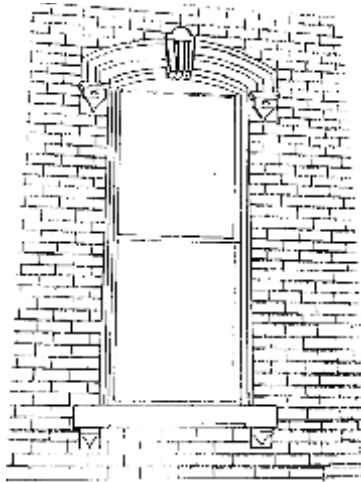
## Windows

Windows are important contributing elements to the character of a building. Retention of the original window sash is a defining feature of a building while the addition of incompatible modern units can severely detract from its appearance. The shape of a window and the number of lights or panes differ from the 1860s to the 1930s in the Ludlow Historic Overlay and these differences in window configuration help to define style and age. With few exceptions, windows in the Ludlow Historic Overlay are of wood frame sash design. Every effort should be made to maintain an retain the existing sash.



**Example of an Italianate window with one-over-one sash and stone hood molding.**

The earliest Italianate style buildings have rectangular or rounded arch four-over-four sash windows. Toward the end of the 19th century, windows became simpler in form with two-over-two and one-over-one sashes predominating. In the late Italianate and Queen Anne period decorative glass, such as etched or stained glass was often used on the main facades and in areas such as stairwells and formal dining rooms. Leaded glass windows were also popular throughout the Colonial Revival period of the early 20th century. Bungalow style windows are often characterized by panes arranged in a vertical design in the top sash unit.



**Example of an Italianate arched window with a sheet metal cornice.**

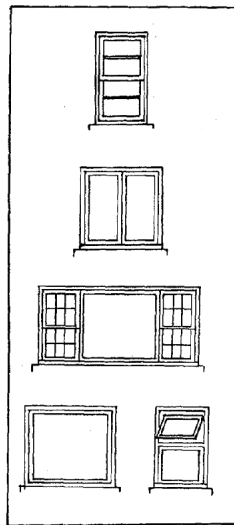
Storm windows can provide substantial savings for older homes and are found throughout the Ludlow Historic Overlay. The introduction of storm windows can generally pay for themselves within five to seven years in reduced energy costs. The most common storm window material is of aluminum or similar metals. Storm windows with an anodized or baked enamel surface are preferred over the untreated or "raw" aluminum metal. Brown, white, and other colors of baked enamel or anodized aluminum are readily available from distributors and blend in much more effectively with the colors on historic structures. If raw aluminum windows are used, they should be primed and painted to match the color of the window surround or sash. Storm windows should be of single pane design to leave visible the original sash configuration or be of double-hung appearance with the muntin bar matching the placement of the original window meeting rail.

**Guidelines**

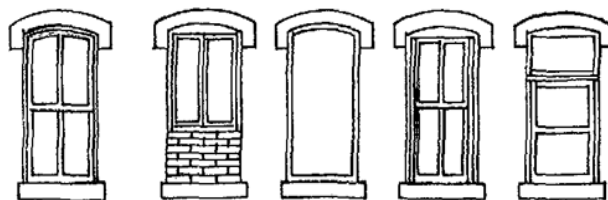
- Historic windows shall be retained and repaired as needed. Repair or replacement of deteriorated window elements should match original elements in dimension, profile, size, shape, arrangement and pattern. Window repair must reuse as much of the original window as possible.
- When window replacement is unavoidable, new units should match original window design. All frame elements must remain but replacement sash units, muntins and trim elements should match original design in dimension, profile, size, shape, arrangement,

pattern and overall appearance. Window surrounds, including the brick mold, lintel and sill, shall not be covered over.

- The addition of modern picture windows or other openings not in scale with the building shall not be installed on the main or side facades. The addition of large windows on the rear facade or side facades which are not readily visible is discouraged but allowable.
- Stained glass, leaded glass or other decorative glass features shall not be removed.
- The addition of historic window details such as bay windows or elaborate stained glass which are not original to a building shall not be installed on a main or readily visible side facade. Such window details may be added on rear facades or side facades which are not readily visible.
- Window glass replacement shall be of clear glass on the main facade and readily visible side facades. No tinted glass shall be installed except on rear facades or side facades which are not readily visible.
- Window replacement shall be of solid construction rather than "snap-on" mullions. Instant mullions are rarely appropriate and shall be avoided.
- Storm windows shall be of baked enamel or anodized aluminum to blend in with the building. Common colors available are dark brown and white. These windows are preferable over the raw or untreated metal frames. Storm windows shall be of single pane design or double hung design to match the window's meeting rail. Window surrounds, including the brick mold, lintel and sill, shall not be covered over.
- When original window design information is missing, replacement windows should be an accurate restoration using historical, pictorial and physical documentation.



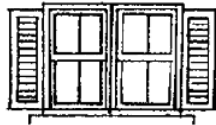
**Windows to be avoided in the Ludlow Historic Overlay.**



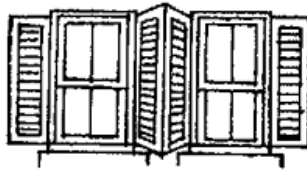
**Original window (far left) and inappropriate window alterations.**

## **Window Shutters and Awnings**

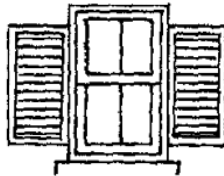
Window shutters serve both functional and ornamental uses. In the summer they can be closed to restrict sunlight from entering a house and in colder months they may be left open to allow maximum sunlight into the house. Shutters are found on many buildings and still provide functional use. Historic shutters are generally of wood construction. Moveable louvers control the amount of light permitted while fixed louvers keep the amount of light constant. Louvers are attached to the exterior of window frames with hinges and anchors.



**Should cover window when shut.**



**Should lay flat.**



**Too short and wide.**



**Too long and thin.**

Window shutters must work or appear to work in order to be acceptable on a historic house. Original shutters are often removed and new ornamental shutters, which are not in proportion with the windows are installed. Window shutters and blinds that do not appear functional are inappropriate and detract from a building's overall appearance. Existing shutters and blinds should be repaired and maintained where possible. New shutters should always appear to work even if they are only ornamental and should be large enough to cover the window if closed.



Canvas awnings were also used to restrict light through windows especially for Colonial Revival and Bungalow era residences. Awnings were also placed on the exterior of porches to provide porch shade in summer months. The use of canvas awnings on residences is appropriate; however, fixed metal or plastic awnings are inappropriate and are not permitted.

#### Guidelines

- Replace deteriorated elements with new wood to match. If shutters are extremely deteriorated they may be removed from a building entirely. Replacement shutters shall match the original in size, shape and configuration. Paneled wood shutters are acceptable, but louvered shutters are more appropriate due to the character of the Ludlow Historic Overlay. Replacement shutters shall be made of wood and must appear operable.
- New shutters shall be proportional to the window opening. They should be neither too wide nor too narrow to cover the window opening. When closed they shall cover the window opening.
- The application of metal awnings on the main facades or readily visible side facades shall not occur. Awnings shall be of a canvas material.

## Wood Siding

The retention of the frame weatherboard and/or wood shingles is preferred for historic houses in Ludlow. Modern materials such as aluminum or vinyl siding, imitation stone, or imitation brick are not desired. The appearance of artificial sidings is rarely convincing and may look out of place on older homes. Wood is a natural insulating material and, if properly maintained, will last indefinitely.

The following are some reasons why a property owner may wish to retain the original siding:

- **Economy is questionable** -- All materials have a limited life span, and baked enamel or vinyl sidings are no exception. After no more than twenty to twenty-five years many applied sidings begin to crack, mottle, or lose their finish making it necessary to paint the exterior of the artificial siding. The property owner is then left with painting the metal or vinyl siding which may be costlier than painting wood surfaces. Although you may save on one or two paint jobs following application of new siding, the initial expense and inevitable painting required later may not make economic sense.
- **Practicality** -- On historic homes synthetic sidings are almost always placed over the original frame clapboard or weatherboard siding. Frame siding must "breathe" and allow moisture evaporation. Artificial sidings interfere with this natural process, and the wood can retain moisture and rot beneath the applied siding. When deterioration of the wood occurs it often goes undetected for many years.
- **Fire Susceptibility** -- Firemen dislike artificial sidings because they intensify the heat within a house. Metal siding in particular traps and intensifies a fire on the interior of the home. Vinyl siding when burned often produces toxic fumes.
- **Insulation** -- The insulating properties of metal siding are often promoted, but very little heat is lost through walls. Applying artificial siding will have little effect on a property owner's bills.
- **Aesthetics** -- No matter how good your contractor is, artificial siding looks like artificial siding and lacks the character of clapboard or weatherboard. The horizontal spacing and

overlapping "boards" on the imitation siding often does not match siding appropriate for historic homes. Significant ornamental detailing is often removed or covered in the application process.

#### Guidelines

- Apply wood siding instead of vinyl or aluminum, or other types of artificial siding. Replacement of siding and corner boards shall be with new wood to match original wood.
- Buildings already containing artificial siding may continue to utilize such surfaces with proper maintenance.
- The use of Hardi Plank or other cementitious fiber is permitted when the original façade has extensive damage. The reveal of the cementitious fiber board must match the reveal of the original wood siding.
- Unless the original siding is oriented differently, siding must be applied horizontally.
- Wood siding must be kept painted or stained.
- Do not cover existing brick walls with any other form of siding. Please refer to ~~(1., b.)~~ for treatment of exterior brick walls.

## Additional Guidelines for Commercial Structures

The largest concentration of commercial buildings in the Ludlow Historic Overlay is located along Elm Street. A small number of additional commercial buildings is dispersed throughout the district. Most of these buildings contain stores, offices, and other businesses, often including residential on upper floors. These buildings are an important part of the neighborhood's character and were built in the mid-19th to early 20th centuries. Although these buildings share similar detailing and overall character with residential structures, there are a number of design elements that must be addressed independently.

Historic commercial buildings in the Ludlow Historic Overlay are primarily of brick construction and one to three stories in height. The buildings are generally of five and six course common bond construction and originally had storefronts constructed of wood, metal and plate glass. Some of the storefronts have been replaced or covered but several fine original examples remain.

### Storefronts

Existing historic storefronts date from the late 19th to early 20th centuries and are designs typical of commercial architecture of the period. Storefronts generally had five main characteristics:

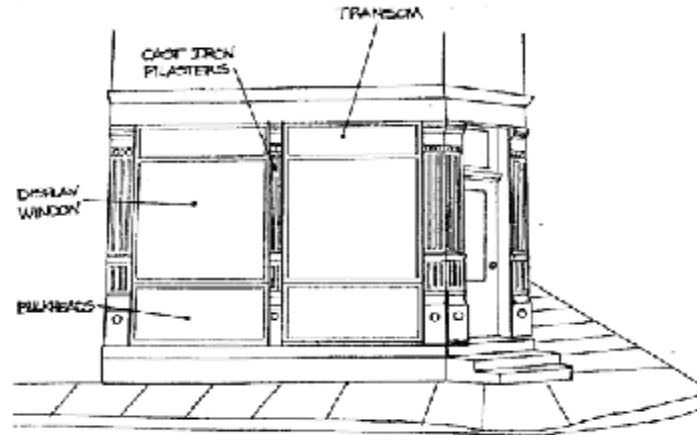
**Lower panels or bulkheads:** The large plate glass windows for the display of goods rested on lower panels, also called bulkheads. These were primarily rectangular in design, of wood, brick, or metal construction and often had raised relief patterns in various designs.

**Display windows:** Merchants in the early 20th century relied on extensive window displays to advertise their goods. High visibility was a priority for these merchants, and the installation of large sheets of plate glass provided maximum exposure of wares.

**Cast iron columns or pilasters:** To support the weight of the brick masonry above the storefront, cast iron columns or brick piers were often added. The cast iron was shaped into decorative forms that supported the load of the brick upper facade allowing large display areas. Brick piers were also used to support the weight of the upper facade brick.

**Large central or corner entrances:** Many commercial buildings originally had large central or corner entrances of single or double doors. While some buildings retain these doors, many have been replaced with modern doors in recent years.

**Transoms:** Over the display windows and entrances were usually transom bars and transoms. Transoms allowed light into the building and were used for additional areas of signage and display. In the early 20th century, transoms were generally of clear glass, but sometimes stained glass or textured glass was used.



**Common storefront elements found on corner commercial buildings in the district.**

**Guidelines**

- Original storefronts or storefronts that are more than fifty years old shall not be altered but repaired and retained.
- Future storefront remodeling or renovation shall follow historic guidelines such as retaining historic features, reconstruction based on historic photos or illustrations, or renovation based on typical storefront designs of the period.
- All decorative metals or glass on historic storefronts shall be retained and maintained.
- Transoms over doors or display areas shall not be enclosed or painted out.
- New designs and materials such as sloping mansard roofs, metal siding, wood shingles, imitation brick and imitation stone are not appropriate and shall not be added to storefronts.
- Awnings shall be at an approximately 45-degree angle to the building and of a canvas material. The use of retractable awnings is appropriate and permitted.

**Upper Facades**

Upper facades of the commercial buildings display features and detailing similar to residential buildings in the Ludlow Historic Overlay. Guidelines which are applicable to residential structures regarding windows, exterior brick or frame siding, cornices, roof details, and other elements are also applicable for the upper facades of commercial buildings.

**Guidelines**

- All original brick decoration on upper facades shall be preserved and maintained.
- Sheet metal elements such as cornices and hood moldings shall be regularly maintained and repaired where necessary.
- Windows on upper floors shall be kept in their original appearance and configuration. The enclosing or bricking in of windows shall not be permitted. See Window Guidelines under residential for additional window information.
- The upper facades of commercial buildings shall never be covered with added metal or frame panels.

## Signs

Signs throughout Ludlow are regulated through the existing zoning Ordinance for the city, Article XIV. These regulations detail the appropriate types, sizes, and locations for signs and must be followed in order to receive a sign permit. The following guidelines are designed specifically to promote appropriate signs for commercial buildings in the Ludlow Historic Overlay.

### Types of Allowable Signs:

- **Wall signs:** any sign affixed in such a way that its exposed face and sign area is parallel to the plane of the building to which it is attached.
- **Window Signs:** signs painted on or attached to or suspended behind any window or door that serves as an identification of a business.
- **Neon Signs:** neon will be allowed as interior signage only, except where a historic neon sign already exists.

### Placement of Signs:

- Signs shall not obscure architectural details.
- Space on the building facade specifically designed to contain signage shall be the most appropriate location for signs.



**Wall signs appropriate for the historic overlay.**



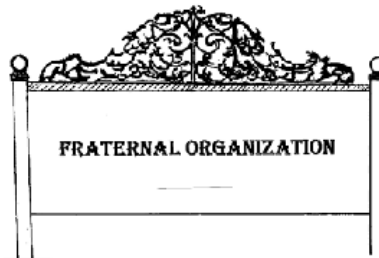
**Window signs appropriate in the district.**

**Neon Signs:**

New neon signs shall be allowed only within the interior of the building. Mounting behind the window glass is appropriate. Existing historic neon signs on the interior or exterior of the building may be retained and maintained as needed.

**Free Standing Signs:**

This Guideline pertains to businesses, churches, fraternal organizations, etc., which are located in the Ludlow Historic Overlay, are not located in commercial buildings, and which require signs to be placed in yards. City zoning setback requirements will apply. In an effort to maintain the residential environment, permanent yard signs shall be set in wrought iron frames (or material designed to resemble wrought iron) and frames shall be of a dark color (black or dark green). Sign frames shall not exceed five feet in length and four feet in height above ground level, but permitted size will vary and be in proportion and scale to the building and site as determined by the Urban Design Review Board. Sign panels shall be of a subdued color such as cream, dark green, or black, with compatible lettering in white, cream, gold, brown, dark green or black. Lighting shall be by external ground lights. All such sign permits must be approved by the Urban Design Review Board at a regularly scheduled board meeting.



**Yard signs appropriate in the district.**

## Guidelines

- Styles of signs will not be restricted.
- Signs which are designed to be historically appropriate shall not predate the facade to which they are applied. (For example, an early 1900s building shall not have a reproduction of a Colonial or 1700s sign.)
- Numbers or colors shall not be restricted; however, color selection should complement but not necessarily match the building in question as well as other buildings within the block.
- Lettering styles and combinations shall not be restricted.
- Only shielded, incandescent external lights, or concealed incandescent lighting will be allowed.

## Wall Signs Guidelines

- A wall sign shall be confined to the flat, unadorned surfaces of the facade.
- Wall signs should be placed where they best complement the building, for example, on blank expanses of wall or building areas clearly designed as potential sign locations, covered transoms, or broad plain fascias in the cornices. Such areas vary depending on the building's architectural style and/or date of construction.
- Wall signs mounted above or incorporated into the storefront cornice shall be acceptable.
- Wall signs mounted on building piers shall be acceptable.
- Wall signs may extend not more than six inches from the building surface.
- Wall signs in the Ludlow Historic Overlay which measure one square foot or less shall require no review by the Urban Design Review Board.

## Window Signs Guidelines:

- Window signs shall be located within eighteen inches from the top or bottom frame of the display window.
- Another acceptable location shall be where the center-line of the sign is five feet, six inches above the sidewalk.

## Sign Materials Guidelines:

- Inappropriate materials and finishes generally include interior grade wood, unfaced plywood, plastic substrates, and unfinished wood.
- Sign brackets shall be constructed of painted wood or pre-finished, pre-painted metal. Guy wires, if needed, shall be as inconspicuous as possible.
- Signs shall be mounted in such a way so as to be reversible and to minimize damage to historic materials. (For example, bolts should extend through mortar joints and not through masonry units.)

## New Construction/Additions

New, or infill, construction describes any new buildings or additions in an historic area. In order to be compatible with historic buildings new construction must follow certain guidelines, but flexibility in design review is also important. Infill construction in historic areas has occurred throughout the country. Where preservation boards have guided this construction, new structures have complemented an historic area and supported its overall character. Where review has not been exercised, infill design has often had a detrimental effect on a historic area. Infill construction should clearly be contemporary and not be exact historic reproductions which could confuse an observer. The most successful new construction combines contemporary design with sensitivity to adjacent structures in the following areas:

- **Height**
- **Proportion**
- **Rhythm of Spacing and Setback**
- **Consistent Materials and Texture**
- **Relationship of Roof Shapes**
- **Additions**

The Ludlow Historic Overlay is fortunate in having few vacant lots in the commercial or residential areas. Overall there remains an important visual appearance of compactness and unity. Construction on the district's vacant lots is appropriate and infill design guidelines are to guide new construction to be in keeping with adjacent structures. Insensitive new construction could result in lowered property values and compromises the aesthetic qualities of the of the Ludlow Historic Overlay.

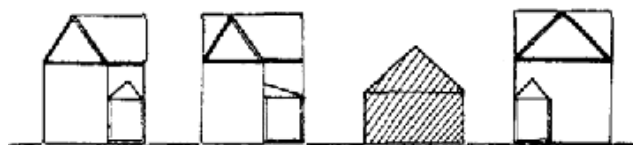
### Guidelines

- **Height**

The majority of the structures in the Ludlow Historic Overlay are one to three stories in height. The height of new construction in the district should be compatible with adjacent structures and not exceed their height by more than ten percent (10%). It is important that the height of buildings remain compatible in the Ludlow Historic Overlay.

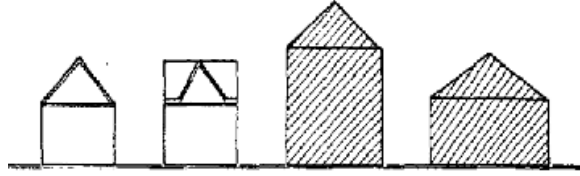
- **Proportion**

New construction shall match adjacent structures in proportions of width to height. Buildings in the Ludlow Historic Overlay are generally narrow and tall and vertical proportions dominate. Compatibility with adjacent structures in proportion shall be followed. The limited width of most lots in the Ludlow Historic Overlay (twenty to thirty feet) will preclude buildings whose proportions differ greatly from existing buildings.



**Proportion and height out of scale with adjacent buildings.**

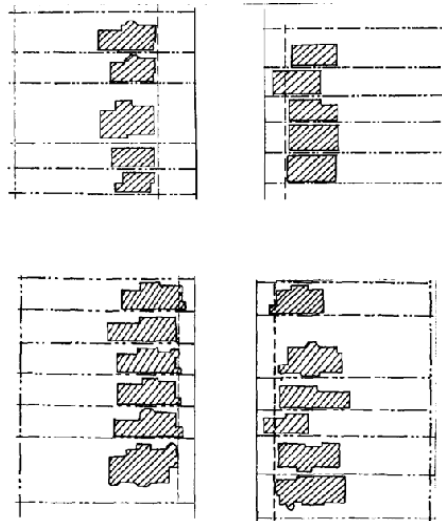




**Oversized proportion and height of new construction.**

- **Rhythm of Spacing and Setback**

It is important that new construction in the Ludlow Historic Overlay be consistent with adjacent structures in rhythm of spacing and setback. This rhythm includes openings on the main facade, porches, fences, landscaping and other elements which provide the character of the streetscape. New construction must maintain the rhythm of window and door openings on the main facade. Throughout the neighborhood there are generally at least two to four window and door openings on the main facade of each building. New construction must maintain this rhythm. Blank walls or single window and door openings on main facades are not acceptable. The height and width of window and door openings should be compatible. This shall prevent undersized or oversized windows out of character with the neighborhood.



**Setbacks for new construction should be consistent with adjacent structures.**

The location of porches varies from block to block throughout the neighborhood. Many of the Italianate and late Victorian period residences in the Ludlow Historic Overlay were built flush with the sidewalk or with limited setbacks and have no porches on the main facade, but there also are numerous examples of ornately decorated porches with carved brackets, friezes, and railings. Later Bungalow and American Foursquare designs in the neighborhood have full width, one-story porches on the main facade. New construction must maintain the rhythm of porch orientation on each block and follow the size, height and placement of adjacent buildings. Two-story porches are generally out of scale and shall not be placed on the main facade. Likewise, a porch shall not be introduced on the main facade where the block character lacks this porch orientation.

Fences shall not be introduced on main facades unless they are consistent with adjacent structures on a block. New fences shall correspond to the height, material, spacing and transparency of existing fences on a block. Landscaping introduced for new buildings shall also be designed to blend in with the consistent landscaping elements of a block. Chain-link style fences are not appropriate in the front or corner side yards of the Ludlow Historic Overlay.

Setbacks throughout the district shall be consistent with adjacent structures. The majority of buildings in the Ludlow Historic Overlay have between five- and fifteen-foot setbacks. Some buildings have little or no setback. New construction must meet the minimum existing zoning regulations, as well as side yard and rear yard requirements. Maximum setbacks for new construction are not defined herein but setbacks should not vary more than ten percent (10%) with adjacent structures except on blocks where the majority of existing buildings are built adjacent to the sidewalk.

- **Consistent Materials and Texture**

The majority of existing buildings in the Ludlow Historic Overlay are of brick construction. New construction should be compatible with adjacent buildings on the block. In most cases this shall require brick construction for new buildings. The texture and color of the brick should be carefully considered to ensure compatibility with existing buildings. Frame buildings should maintain materials and design found throughout the neighborhood such as horizontal weatherboard siding and horizontal shiplap siding. Vertical siding, wood shingles, concrete, imitation stone, and wide profile artificial sidings, including aluminum and vinyl, should be avoided. The use of varied colors, glazing, or patterned surfaces to give the appearance of a historic reconstruction should not occur.

- **Relationship of Roof Shapes**

Roofs for new construction should be consistent with adjacent structures. The majority of blocks in the Ludlow Historic Overlay have variations of hipped, shed, gable, or mansard roofs and provide for some flexibility in roof design for new construction. Due to the density of lots it may be possible for new construction to have roofs which change roof lines in the rear one-half or one-third of the building. This would accommodate additional floors in a stepped fashion if not readily visible from the major street facade (s).

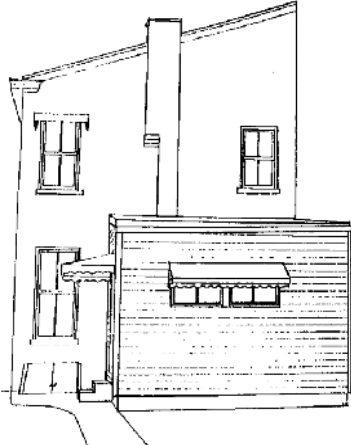


**Roof shapes inconsistent with adjacent structures.**

- **Additions**

Additions to historic buildings in the Ludlow Historic Overlay are restricted by the narrowness of lots and zoning regulations. These requirements effectively eliminate the possibility of additions on main or side facades for most buildings in the Ludlow Historic Overlay. Rear facade additions are allowed.

Additions shall not occur on a main facade or readily visible side facade. Side facades which are not readily visible may receive additions which are compatible with the original structure. Additions shall follow existing roof lines, trim lines, material and massing of the building.



**Example of an appropriate rear addition.**

## **Demolition or Relocation**

Demolition of buildings within the Ludlow Historic Overlay must be approved by the Urban Design Review Board except in cases where there is a threat to the public safety. The purpose of historic zoning is to protect historic properties and the demolition of a building which contributes historically or architecturally to the character of the district is inappropriate and shall be avoided. Demolition shall only occur where it has been demonstrated that public safety is threatened; if economic hardship has been determined and the demolition is approved by the Urban Design Review Board; or for buildings or additions which are of a later time period, have lost their original architectural integrity, or do not contribute to the neighborhood's streetscape as determined by the Urban Design Review Board.

Relocation or moving a historic building should also be avoided. Moving a historic structure always negates its integrity of site and setting and could also result in the loss of the ability to use the historic tax credit. Moving a building which retains its architectural and historical integrity, and which contributes to the district is inappropriate.

Moving a building that does not contribute to the historical and architectural integrity of the district or which has lost architectural integrity due to deterioration and neglect is appropriate if its removal or the proposed replacement will result in a more positive visual effect on the district. A building may be moved into the neighborhood if it maintains a sense of architectural unity in terms of style, height, scale, massing, materials, texture and setback with existing buildings along the street.

A building may be moved from one site to another in the neighborhood if the integrity of location and setting of the building in its original location is seriously threatened; if the new location will be similar in setting and siting; if the building will be compatible with the buildings adjacent to the new location in style, height, scale, materials and setback; and if the relocation will not result in a negative visual impact on the site and surrounding buildings from which it will be removed.

# Glossary of Common Architectural Terms

**Accessory Building, Structure or Use** -- A building, structure or use that is subordinate to and serves the principle building or use. The structure must be subordinate in area, extent, or purpose to the principle building and use served. The accessory must contribute to the comfort, convenience, or necessity of occupants of the principle building or use. The accessory must be located on the same lot. Accessory buildings are typically detached structures. Examples include detached garages, sheds, barns, gazebos, patios, decks (both detached and attached), swimming pools, hot tubs, fences, retaining walls, driveways, parking lots, sidewalks, detached stairways, and lifts.

**Baluster** -- A turned or rectangular upright member supporting a stair rail.

**Balustrade** -- An entire railing system with top rail and balusters.

**Bargeboard** -- A board which hangs from the projecting end of a gable roof covering the end rafters, and often sawn into a decorative pattern.

**Bay Window** -- A window in a wall that projects at an angle to another wall.

**Board and Batten** -- Siding fashioned of boards set vertically and covered where their edges join by narrow strips called battens.

**Bracket** -- An ornamental or structural member or both set under a projecting element, such as the eaves of a house.

**Bungalow** -- Common house form of the early 20th century distinguished by horizontal appearance, wide eaves, large porches and multi-light doors and windows.

**Capital** -- The head of a column or pilaster.

**Colonial Revival** -- House style of the early 20th century based on interpretations of architectural forms of the American colonies prior to the Revolution.

**Column** -- A vertical support, usually supporting a member above.

**Corbel** -- In masonry, a projection, or one of a series of projections, each stepped progressively farther forward with height and articulating a cornice or supporting an overhanging member.

**Corinthian Order** -- Most ornate classical order. Characterized by a capital with ornamental acanthus leaves and curled fern shoots.

**Cornice** -- The uppermost projecting part of an entablature, or a feature resembling it. Any projecting ornamental molding along the top of a wall, building, etc.

**Cresting** -- Decoration applied along roof ridges generally consisting of ornamental metal.

**Dentils** -- A row of small tooth-like blocks in a classical cornice.

**Doric Order** -- A classical order with simple, unadorned capitals.

**Dormer Window** -- A window that projects from a roof.

**Double Hung Window** -- A window with two sashes, one sliding vertically over the other.

**Eaves** -- The edge of a roof that projects beyond the face of a wall.

**Efflorescence** -- A white powdery deposit on masonry or plaster caused by mineral salts migrating to the surface, usually as a result of evaporation of leaking water or rising damp.

**Elevation** -- Any one of the external faces of a building.

**Ell** -- The rear wing of a house, generally one room wide and running perpendicular to the principal building.

**Engaged Column** -- A round column attached to the wall.

**Entablature** -- The band of moldings near the top of a facade, divided into cornice, frieze, and architrave.

**Facade** -- The face or front of a building.

**Fanlight** -- A window, usually semi-circular over a door, with radiating muntins suggesting a fan.

**Fenestration** -- The arrangement of windows on a building.

**Finial** -- A pointed ornament at a gable peak

**Fluting** -- Shallow, concave grooves running vertically on the shaft of a column, pilaster, or other surface.

**Fretwork** -- Ornamental woodwork, cut into a pattern, often elaborate.

**Frieze Board** -- A flat board at the top of a wall directly beneath the cornice.

**Gable** -- The triangular section of a wall to carry a pitched roof.

**Gable Roof** -- A roof with a central ridge and one slope at each side.,

**Greek Revival Style** -- Mid-19th century revival of forms and ornament of architecture of ancient Greece.

**Hipped Roof** -- A roof with uniform slopes on all four sides.

**Hood Mold** -- A projecting molding above an arch, doorway or window.

**Ionic Order** -- A classical order characterized by a capital with spiral scrolls, called volutes.

**Italianate Style** -- Ca. 1860s to 1890s style found often in Ludlow with shallow roofs, cornices, brackets, window hood moldings, and other decorative detailing.

**Lattice** -- An openwork grill of interlacing wood strips used as screening.

**Lintel** -- A horizontal beam or stone bridging an opening.

**Mansard Roof** -- A double-slope roof with two slopes on at least one or more sides, with the lower slope almost vertical and the upper almost horizontal.

**Metal Standing Seam Roof** -- A roof composed of overlapping sections of metal such as copper-bearing steel or iron coated with a terne alloy of lead and tin. These roofs were attached or crimped together in various raised seams for which the roofs are named.

**Modillion** -- A horizontal bracket, often in the form of a plain block, ornamenting, or sometimes supporting, the underside of a cornice.

**Mullion** -- A vertical strip dividing the panes of a window.

**Muntin** -- A secondary framing member to hold panes within a window or glazed door.

**Neo-Classical Style** -- Early 20th century style which combines features of ancient, Renaissance, and Colonial architecture; characterized by imposing buildings with large columned porches.

**Palladian Window** -- A window with three openings, the central one arched and wider than the flanking ones.

**Pediment** -- A triangular space in an gable closed on all three sides.

**Pilaster** -- A square pillar attached, but projecting from a wall, resembling a classical column.

**Porte-cochere** -- A porch large enough to enclose wheeled vehicles.

**Portico** -- A roofed space, open or partly enclosed, forming the entrance and centerpiece of the facade of a building, often with columns and a pediment.

**Pyramidal Roof** -- A roof with four identical sides rising to a central peak.

**Queen Anne Style** -- Popular late 19th century revival style of early 18th century English architecture, characterized by irregularity of plan and massing and variety of texture.

**Quoins** -- Outset stone blocks or bricks ornamenting the outside walls of a building, usually at the corners.

**Sash** -- The movable framework containing the glass in a window.

**Sill** -- The bottom crosspiece on a window frame or door.

**Siding** -- The exterior wall covering or sheathing of a structure.

**Spalling** -- Flaking of the outer face of masonry, often caused by expanding moisture in freezing conditions.

**Terra Cotta** -- Cast and fired clay units, used as ornamentation.

**Transom** -- Horizontal window-like element above the door.

**Vergeboard** -- The vertical face board following and set under the roof edge of a gable, sometimes decorated by carving.

**Weatherboard** -- Wood siding consisting of overlapping boards usually thicker at one edge than the other.

## Secretary of the Interior Standards for Historic Preservation

The following Standards for Rehabilitation are the criteria used to determine if a rehabilitation project qualifies as a certified rehabilitation. The intent of the Standards is to assist the long-term preservation of a property's significance through the preservation of historic materials and features. The Standards pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and the interior of historic buildings. The Standards also encompass related landscape features and the building's site and environment, as well as attached, adjacent, or related new construction. To be certified, a rehabilitation project must be determined by the Secretary to be consistent with the historic character of the structure(s) and, where applicable, the district in which it is located. The following Standards are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility. Guidelines for applying these standards can be found at [www.nps.gov](http://www.nps.gov).

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.