

*Tuxedo Park Entrance, Tuxedo Park, N. Y.*



# Tuxedo Park Architectural Design Guidelines

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Historic images courtesy of the

*Tuxedo Historical Society Collection*

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## Introduction

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Across the United States, design review has proven an effective way for communities to preserve and protect the character of historic districts. In 1980, Tuxedo Lake and environs, including the Village of Tuxedo Park, was listed on the National Register of Historic Places in recognition of its valuable contribution to the history of American domestic architecture and site planning. The designation as a historic district, supported by local zoning laws, requires all proposed changes to the built environment to undergo review by the Board of Architectural Review (BAR). The BAR reviews all applications for new construction, exterior alterations, demolition, excavation, site work, and accessory structures requiring a building permit.

Preservation of Tuxedo Park's unique historic character —

- Protects against unplanned, disruptive change
- Maintains property values
- Encourages a cohesive community
- Enriches experience for residents and visitors
- Conserves energy

While no set of regulations and recommendations can fully address the range of architectural diversity within Tuxedo Park, this document offers a framework for project planning. It is not intended to frustrate design creativity but rather to provide a context for thoughtful and constructive changes to the buildings and sites within the Village.

By providing consistency in process and results, guidelines can encourage investment. They can promote stable property values and reduce the opportunity for disputes. And finally, they can suggest ways in which building conservation, properly done, can support energy conservation and help slow climate change.

The following guidelines offer assistance for owners, architects, and builders looking for information on historic styles and practices, sensible preservation and energy conserving techniques, and site planning. They provide recommendations for sound architectural practice; and finally, they reference regulations in the Village Code that must be followed.

The guidelines build upon the foundation set by the Village Code (see [www.tuxedopark-ny.gov](http://www.tuxedopark-ny.gov)). For example, Section 100-54 of the Code governing review of applications by the BAR encourages “*tailoring to the natural terrain*” and discourages “*overdevelopment of the site given the physical and other environmental features of the site...*”. The importance placed throughout these guidelines on the integration of site and structures follows closely upon the emphasis established in the underlying Code provisions.



*Historic lighting,  
Tuxedo Clubhouse*

## About Tuxedo Park

In the early 1880s, tobacco heir Pierre Lorillard IV acquired 7,000 acres in present day Orange County with plans for an exclusive hunting and fishing lodge. He soon expanded his vision to include a residential park, capitalizing on the land's rugged beauty, expansive views, and a growing national interest in planned communities.

With this idea, the Tuxedo Park Association incorporated in 1886, and Lorillard quickly engaged architect Bruce Price, landscape engineer Ernest Bowditch, and immigrant laborers to begin work. Along with the residential "cottages" the early plan called for stores, schools, churches, a library, and a hospital. The Tuxedo Park Association limited residency to wealthy families with only the best social standing and connections. The community thus became an enclave for leaders of the late 19th century world of business and finance.

Tuxedo Park's most active period of architectural development can be divided up into two key phases. The first (1886 to the mid-1890s) includes the first thirteen "cottages" commissioned by Lorillard and designed by Bruce Price. These and other similar buildings were constructed in the Shingle Style and designed as seasonal residences with no heat or insulation.

The second phase occurs around the turn of the 20th century. The newer homes were larger, steel framed, and fitted out with modern conveniences such as central heating, plumbing, and electricity. The popularity of revival styles made its mark on Tuxedo Park during this period—Tudor Revival, Spanish Mission, Georgian, Jacobean, Gothic Revival, Queen Anne, and Dutch Colonial.

The community's profile as a wealthy and desirable community grew; and residents enjoyed a wide array of amenities including golf, tennis and racing, as well as such unique offerings as court tennis and racquet courts in an architect designed clubhouse. Influential architects of the period such as Carrere & Hastings, John Russell Pope, McKim Mead & White, Warren & Wetmore, and many others were well supported creatively and financially by their Tuxedo Park clients. In turn, they produced a striking collection of grand homes, thoughtfully integrating architecture and landscape.

From the beginning, Tuxedo Park's architecture and topography were fully wedded design elements. The natural environment, with its sloping, rocky terrain, and dense growth forced architects to contemplate the overall site at the beginning of the design process, developing a clear relationship between building, land, and environment. 19th century writer and horticulturist, Andrew Jackson Downing, aptly described architecture's role in this context as "subordinate to the landscape."



*Foundation work, Tuxedo Park, c. 1900*



*Architect James Brown Lord's drawing of the "cottage" designed for Ballard Smith (built 1891).*

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By the mid-1930s, as the United States weathered the Great Depression, significant changes came to Tuxedo Park. The original charter of the Tuxedo Park Association expired, original members began to pass away, membership at the Tuxedo Club declined, and there was little building activity. This marked the beginning of an extended period of decline in the community that lasted several decades.

An architectural highlight in the years leading up to World War II was the construction of two homes in 1937 by Swiss-born architect William Lescaze. Educated in Europe and schooled in the earliest tenets of modernism, Lescaze became nationally recognized upon completion of the PSFS Building (Philadelphia, 1932), the first International Style skyscraper built in the United States. Likewise, the architect's designs for Tuxedo Park introduced the spirit of early modernism into the community.

Minimal development occurred in Tuxedo Park from the 1930s through the 1970s. Renewed interest during the 1970s, marked by population growth and development pressures, motivated residents to seek out protections for the community's built environment. As historic homes were lost to demolition and land divided up into smaller lots, many recognized that the historic character of Tuxedo Park was at risk. The concern is evident in the application for national historic district status:

*National Register designation would do much to foster greater public awareness of the importance of preserving the architecture of Tuxedo Park, and to guarantee the continued existence of this important aspect of American architectural, social and cultural history.*

In 1979, the Village of Tuxedo Park was listed on the National Register of Historic Places in recognition of its valuable contribution to the history of American domestic architecture and site planning. Zoning laws and architectural review now provide the legal and regulatory tools to support this designation. Today, Tuxedo Park is a vibrant community committed to protecting its architectural heritage. When changes are proposed, residents recognize that individual needs must be balanced with the community's goal to protect and preserve historic character, thus contributing to the long term success and well-being of Tuxedo Park.

Note: The two primary sources for this historical summary are: *Tuxedo Park: The Historic Houses* (Christian R. Sonne and Chiu yin Hempel) and *Tuxedo Park, National Register of Historic Places-Nomination Form* (United States Department of the Interior). Images and caption information courtesy of the Tuxedo Park Historical Society.



*Tuxedo Tennis & Racquet Club. 1899. Architect Warren & Wetmore.*



*Horse show grounds, c. 1910*

## Board of Architectural Review (BAR)

A five-member volunteer committee serves as the Board of Architectural Review (BAR). The BAR is responsible for the review of all new construction, exterior alteration, demolition, excavation, site work, and accessory structures requiring a building permit.

During its review, the BAR evaluates the proposed alteration(s) or new construction for their compatibility within the Tuxedo Park context. The findings in the Zoning Code succinctly establish the BAR's mandate:

*The Board of Trustees finds that:*

*A. The Village of Tuxedo Park is unique in its many examples of excellence in architectural and landscaping design.*

*B. The designation of the entire Village as an historic site and its listing on the National Register of Historic Places by the United States Department of the Interior is both a recognition of the unique excellence of architecture and landscaping within the Village and a mandate to the Village to preserve the values and standards reflected in such excellence and such designation.*

*C. Property within the Village derives much of its value from its proximity to such examples of excellence in architecture and landscaping, and that when and where structures of poor design quality or inferior building materials have been erected within the Village there has been a corresponding diminution in value to adjacent properties in particular and to properties in general throughout the Village.*

*D. The predominant terrain throughout the Village is steep, rocky and severe and presents unusual difficulties and challenges to designers of new construction and landscapers, and that such terrain does not lend itself to successful development with stock or standard structure designs but rather requires the skill and attention of trained professionals who have investigated and addressed the specific site to be developed.*

Normal repairs and maintenance, if not altering design, structure, materials or exterior appearance, do not require BAR approval. If the exterior is altered in any way, a review is required. If you are not certain your project will require review, contact the Building Inspector at the Village Office at (845) 351-4745 to discuss your proposed work.

Appointed by the Village's Board of Trustees, the BAR meets twice monthly. Chapter 100, Sections 100-49 through 100-57 of the Village of Tuxedo Park Zoning Code specify the BAR procedures and responsibilities.

## Design Review Principles

Since Tuxedo Park is listed on the National Register of Historic Places, the BAR's review philosophy and core principles are grounded in the *Secretary of Interior Standards for Historic Preservation*, the national standards for the treatment of historic properties (see links and a copy of the ten standards in the Appendices). The Tuxedo Park Architectural Guidelines contain additional recommendations specific to the unique qualities of Tuxedo Park.

The *Standards* are supplemented by the *Guidelines for Rehabilitating Historic Buildings* which provide useful advice for owners and professionals working on old and historic properties. The guidelines cover common materials, features and assemblies, as well as energy conservation, maintenance and accessibility. While the *Standards* address historic buildings primarily, they provide advice useful for the rehabilitation of American buildings. The *Guidelines* suggest a model approach to all projects which is followed by increasingly intense levels of intervention that may be required to achieve rehabilitation goals:

### **Identify, Retain and Preserve**

This capsule phrase describes the initial process of determining the qualities, features or components of a site or structure that are most important to determining its historic character. Once that identification has been made, it is then possible to look at the levels of treatment that are required to retain and preserve those character-defining elements.

### **Protect and Maintain**

Protection involves the least degree of intervention and is often a preventive measure. Maintenance can include rust removal, caulking, re-application of protective coatings, painting, cleaning of roof and gutter systems, and installation of safety equipment. These types of repairs should be included in any maintenance plan and regularly executed.

### **Repair**

When additional work is required, repair is recommended. Repair work should begin with the least amount of intervention possible, such as piecing in, splicing, consolidating or otherwise reinforcing or upgrading accordingly. Repairs can also include in-kind replacement or substitute materials used for extensively deteriorated elements.

### **Replace**

Replacement should only be undertaken when an entire character defining feature has failed. The replacement should use the same or comparable materials and match the existing in shape, dimensions and finishes. Do not replace an exterior feature that could be repaired or preserved with reasonable effort and cost.



*Preservation of original architectural features protects Tuxedo Park's historic character.*

## The Importance of Landscape



*Changes to the landscape can alter the historical character of nearby buildings and the overall community. Landscaping should be thoughtfully considered and well planned.*

The 19th century plan for Tuxedo Park conceived its architecture and landscape to be interwoven design elements. The sophisticated level of original site planning continues to distinguish it from other historic districts. Therefore, careful protection of Tuxedo Park’s architectural heritage cannot be addressed without thoughtful attention to geography, location, and historical precedent.

As urban centers grew rapidly from mid-19th century and onward, Americans turned to the landscape as a source of national identity, inspiration, and escape. Landscape painting, most notably represented by the Hudson River School, became the first major movement in American Art. The romanticization of rural life was best communicated through the books of architectural theorist and horticulturist Andrew Jackson Downing. A prolific writer on domestic architecture and landscape design, books such as *The Architecture of Country Houses* (1850) and *Landscape Gardening and Rural Architecture* (1865) profoundly influenced the naturalistic design of Tuxedo Park.

Proposed changes should be guided by historic images, if they are available, and if not, by records of land planning and planting trends from the period in which the building or landscape was originally designed. The Tuxedo Park Historical Society is a good start for your inquiry.

For new construction, a well-considered landscape plan can integrate new buildings into existing neighborhoods. Openness and shared views can coexist with strategic screening.

## Historic Preservation and Sustainability

The guidelines provide opportunities to support the shared goals of historic preservation and sustainability. The preservation and repair of existing buildings is a sustainable activity. The preservation mantra of “retain, repair, replace” complements the sustainability trio of “reduce, reuse, recycle”.

Many of the older buildings in Tuxedo Park have “green” features such as porches or large overhangs shading the interior, shade trees, operable windows and shutters, and wind driven attic ventilators. Preserving or restoring these features is equally or more sustainable than adding solar collectors or geothermal systems, which require large amounts of energy for their manufacture and installation. The most cost-effective green strategies such as insulation and air sealing do not dictate architectural style or prevent new buildings from fitting their context.

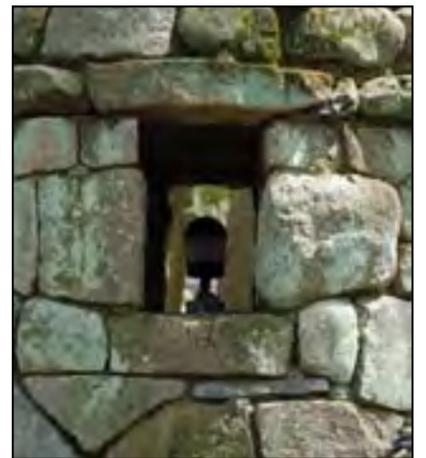
These guidelines, therefore, are designed to help chart a sustainable future for Tuxedo Park. You will find recommendations for sustainable approaches embedded in the guidelines for the rehabilitation of old and historic structures and landscapes in the Village. Before undertaking improvements on your building, it is smart to commission an Energy Audit so you understand what energy conserving measures you can include in the work you are contemplating. Benefits to the planet and to your pocketbook can be substantial. Information is available from your utility supplier and state agencies such as the New York State Energy Research and Development Authority (see Appendices for contact information).

A requisite for sustainable preservation is maintenance. All building materials, new or old, will deteriorate over time and will require repairs during the life of a building. Seasons, weather, insects and vegetation eat away at buildings. Maintenance of materials and mechanical systems significantly slows this deterioration process, extends the life of your building, and saves money and energy over time. Vigilant upkeep protects you from costly repairs resulting from deferred maintenance.

A maintenance plan will not be the same for each building, and each program should be tailored to the overall size, shape, function, and usage patterns of the individual property. Character defining forms, details and materials should be identified and routinely inspected and repaired. When developing a maintenance plan for a historic property, refer to the guidelines outlined in *Secretary of the Interior Standards for Historic Preservation* (see Appendices).



*Retain and restore historic materials.*



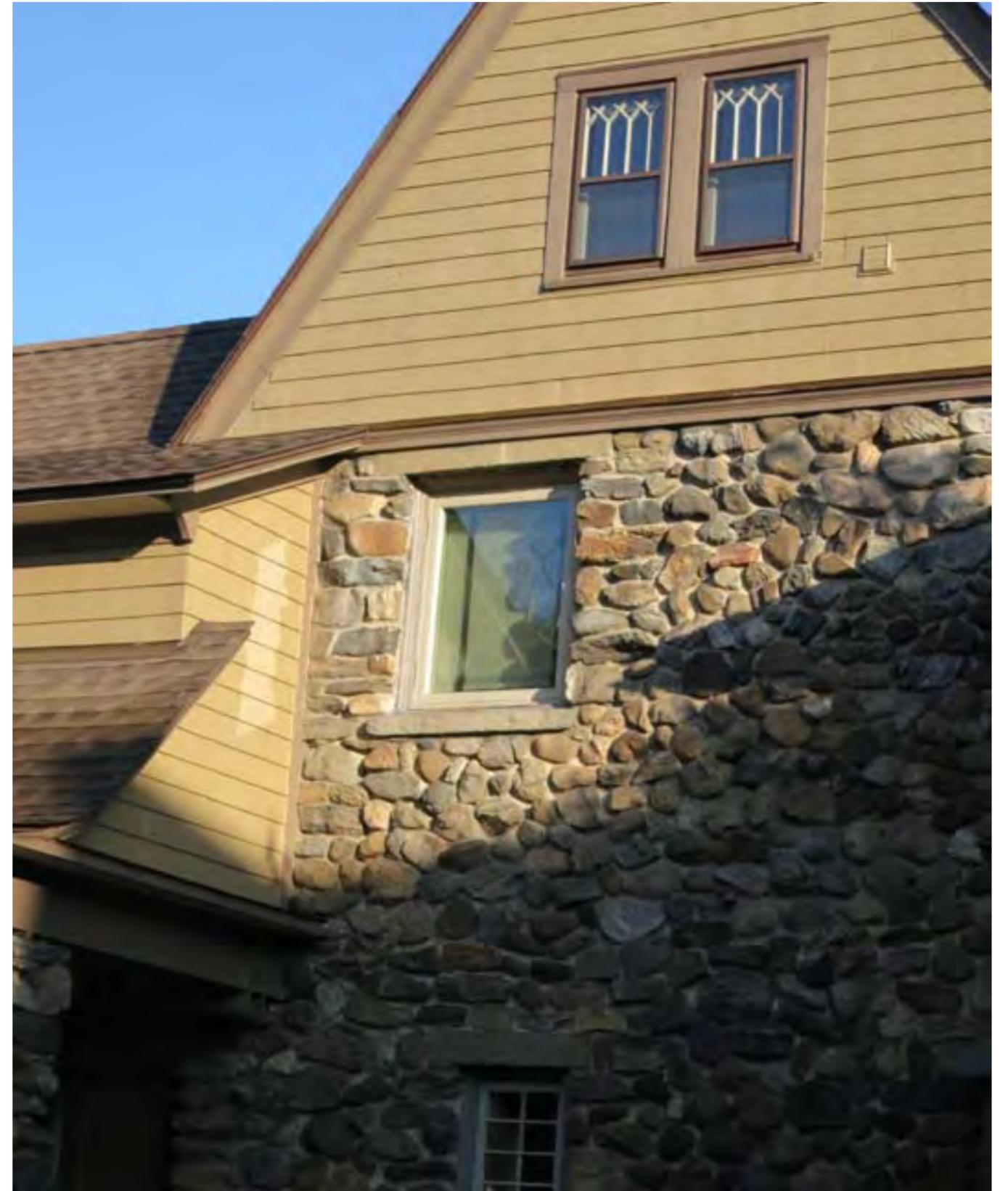
*Adapt original features with energy saving devices. Exterior lighting can easily be fitted with efficient bulbs and a motion sensor, reducing energy consumption.*



*Maintaining shade trees around a home provides natural cooling during warmer months.*

# Changes to Building Exteriors

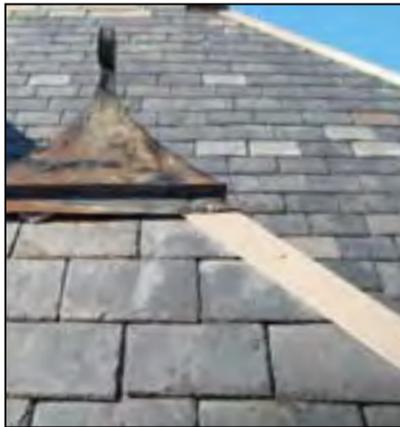
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## Roofs



Replicate original wood shingles in exposure, pattern and thickness.



Repair slate roofing in kind. Substitute materials must meet high standards.



Replace damaged historic terra cotta roofing with new tiles that match original in material, color, decorative patterns and style.

Historic wood shingle, slate and ceramic tile roofs are found throughout the Village of Tuxedo Park. Roof shape and pitch play a major part in defining the mass and style of a building, existing or proposed. Chimneys, dormers, gutters and downspouts are roof elements integral to the character of the building.

### ***Considerations for Installation, Repair and Maintenance***

There are many traditional and new roofing materials available. Weigh alternatives carefully when planning a new building or a renovation. Besides the strong visual appeal and look of authenticity of historically appropriate materials like slate, tile and metal, when maintained, these roofs can last up to 100 years—much longer than the standard 20 to 30 year lifespan of contemporary asphalt roofing. The life of any roof can be extended through consistent maintenance. Before starting any roofing project consider the following:

- Look at mock ups or samples of the proposed roofing materials in a place where they will ultimately be installed before embarking on full construction.
- Replace *in kind* materials damaged or deteriorated beyond repair. If possible, limit replacement to the area needing repair.
- Use appropriate techniques to maintain, protect and repair historic features, materials and details.

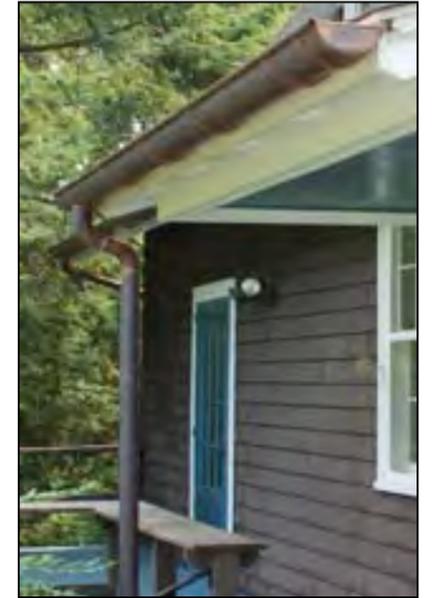
The roofing process presents an opportunity to improve energy performance as well as appearance. It may be possible, for example, to add a thin layer of insulation under the new roof without noticeably affecting appearance. That insulation will help reduce heating and cooling bills and prolong the life of the roofing materials by reducing stress from temperature swings. Lighter color roofing materials also tend to have a longer life and reflect more heat away from the building in summer.

In general, to maintain and protect the life of your roof:

- Keep gutters and downspouts leaf-free and intact. This protects the walls of the building, reduces water migrating into the basement and storm washout of soil around the building.
- Repair gutters, downspouts, flashing; repaint trim, maintain ventilation and fix leaks promptly.
- Avoid delaying repairs on roof and roof features.

## Guidelines: Roofs

1. Install and preserve roofs that reinforce the character of the building. This includes the roof's shape, such as hipped, gambrel, and mansard and decorative features such as cupolas, cresting, chimneys, and weathervanes.
2. Replace, in kind, materials that are deteriorated beyond repair. New materials should have a scale and texture similar to the original. Repair and replicate cedar shingles, slate, terra cotta tile, and other historic roofing, matching the original color, decorative patterns, exposures and style. High quality materials should be used for all roof replacement. Confine rubber membrane roofing to minimally visible locations except where it is an underlayment for a finished roofing surface.
3. Retain and repair original roof detailing, including original eaves depth and detailing, cornices, fascia boards, rake boards and other design elements. This includes all original decorative metal such as iron cresting, finials and weather vanes.
4. Avoid significant dormer alterations or additions. The size, number and shape of dormers have a major impact on the appearance of the overall building. Dormers should not be removed or enlarged. With a repair, the dormer's outer walls should match the exterior walls of the building. Do not wrap roofing material around dormer walls.
5. Select and install new gutters and downspouts, preferably raw copper or terne coated stainless steel, to reinforce the building's architectural integrity. Wood gutters, when an integral part of an ornamental cornice or roof edge design, should be repaired and maintained. Gutter support straps should be minimally visible.
6. Install flashing in scale with the roof material. Care in the selection and craft of flashing is fundamental to roofing projects.
7. Preserve and maintain original chimneys. A waterproof, stable chimney must have sound mortar joints suitable for its constituent masonry units. Re-point historic chimneys with mortar matching the original in strength, color, texture, and profile.
8. Exterior equipment should be inconspicuous: this includes plumbing vents, fan outlets, air conditioning condensers, TV antennas, satellite dishes, electrical service boxes and, more recently, renewable energy features such as solar panels or wind turbines. Careful placement is the first step, followed by screening and camouflaging equipment, minimizing exposure from the most likely vantage points for neighbors or the public.
9. Select low profile ridge vents if roof ventilation is desired on a historic roof. Installation should occur only if it will not destroy historic roofing materials.



Downspouts should be the same material as the gutters. Copper should remain natural, not painted. Copper and stainless steel have the longest useful life, as much as 100 years or more. Galvanized steel can last for 50 years or more with proper care, and its lifetime can be longer if painted. New non-lead bearing coatings are available to substitute for such historic materials as lead-coated copper, or lead/tin flashing and solders.



Ridge caps for asphalt shingles should terminate before the eaves, as above, not carry through as below.



## Exterior Walls & Trim



*Tuxedo Park's historic exteriors showcase a variety of wall and trim materials rather than a single one. Above, a thoughtful and balanced mix of quality materials—stone, brick, stucco and wood.*

Exterior wall surfaces define a building's massing and form. In Tuxedo Park, buildings are commonly clad in wood, stone, brick, and stucco expressing the variety of styles and tastes incorporated into 19th and 20th century architectural designs. Surface materials, details, textures, and finishes provide tangible clues to a building's authenticity and appropriateness.

### ***Considerations for Installation, Repair and Maintenance***

Consider the texture, pattern, scale, and detail of adjacent or existing exterior materials when choosing exterior wall and trim materials for new construction or when repairing or replacing damaged or deteriorated work. In most repairs, selective replacement is all that is necessary. Owners are encouraged to consider the following:

- Look at mock ups or samples of the proposed wall and/or trim materials in a place where they will ultimately be installed before embarking on full construction.
- Match the characteristics of the adjacent or original material such as the distinct bonding pattern of a brick wall, the texture and depth of wood siding, and the three-dimensional quality of wood molding.
- Use appropriate techniques to maintain, protect and repair historic features, materials and details. Engage contractors who are experienced working with quality materials.

Replacing or covering up historic wall materials with artificial sidings (vinyl, aluminum), concrete board, faux stone or brick, stucco-like coatings, or other non-compatible materials is not appropriate as it diminishes the architectural integrity of the building. Installation of these materials often means the removal or concealment of valuable historic architectural trim and details. Although frequently advertised as “maintenance free” or “low maintenance”, many contemporary siding products prove to not be as durable as the original materials, and their recent production makes them less environmentally-friendly.

In general, to maintain and protect the life of your exterior walls and trim:

- Conduct semi-annual inspections to identify condition and maintenance needs.
- Repair small areas of deterioration before they turn into larger issues.
- Maintain and repaint exterior woodwork on a regular basis to provide maximum protection of wood siding and trim.

## Exterior Walls & Trim: Wood

With proper and consistent maintenance, wood features (siding, shingles, and trim) can last for hundreds of years. Old growth wood used historically for these features is much harder and rot resistant than most wood available on the market today. Unfortunately though, neglect can lead to deterioration due to water, fungus, mold, and insects.

Historic siding, cornices, brackets, window architraves, pediments and other exterior wood features are valuable and often irreplaceable; often only replicable with the great expense of creating custom shapes and tools. It is imperative to avoid situations where water can stand on flat surfaces or accumulate on decorative features.

Wood trim serves both a decorative and functional purpose. It serves as a transition to decorative elements such as doors, windows, cornices, and porches while also sealing siding and shingles at joints, corners, and openings—protecting the building from water infiltration. Water infiltration into the building skin represents a serious risk if your house has improved insulation. Inadequate insulation in existing buildings allowed escaping interior heat to dry out exterior materials--prolonging their lifetime. New improved insulation reduces heat transfer and so must be paired with measures to reduce water infiltration into the exterior skin.

Keep painted wood surfaces painted and clean. Paint coatings protect historic wood from moisture and ultraviolet light. If you need to remove paint, use the most gentle means possible such as hand-scraping, hand-sanding or peel-off paint removers to preserve historic wood for the years ahead. New wood should be back-primed and coatings should be applied to all cut ends. Follow EPA guidelines when dealing with materials painted before 1973, which may contain lead.

Repair wood features by patching, consolidation, and other supported preservation methods, and when repair is not possible, replace in kind. Replacement of an entire wood feature in kind should be supported by historic documentation—such as physical evidence (original parts of the wood cornice) or images (historic photos, drawings).

The use of “substitute” materials such as cellular PVC or fiberglass should be confined to vulnerable or difficult to reach decorative details. New well-tested renewable and environmentally friendly materials are appearing on the market and should be specified where appropriate.



*Research original wood shingle type before starting a repair or restoration project. New shingles should be of high quality and replicate historic shingles in exposure and pattern.*



*Replicate original clapboard siding in exposure, detail and dimension. Install replacement clapboards of clear grade, solid material, and of a board length no less than 48 inches.*

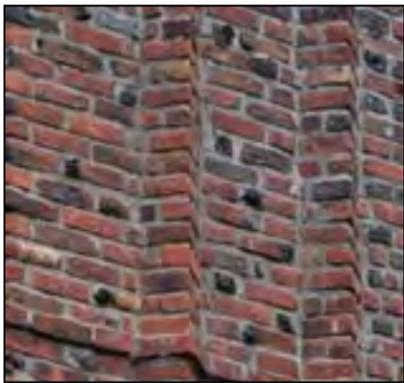


*Authentically restore board and batten siding to follow historical proportions of repeat and sizes.*

## Exterior Walls & Trim: Masonry



*Use brick masonry fill, nogging, wattle and daub, plaster or stucco fill with half timber construction. Non-traditional resin-based stuccos are not allowed for any repairs, restorations, additions or new construction.*



*Match existing brick when a replacement is necessary. Variegated or machine made brick should not be used.*



*The use of local materials to repair and restore stone is preferred.*

Residences throughout the Village of Tuxedo Park are constructed with a variety of masonry types including brick, stone, terra cotta, stucco, and mortar. With good maintenance and proper repairs, these materials can last for centuries. As with all materials though, improper maintenance and poorly executed repairs lead to problems. Masonry can also deteriorate as a result of water infiltration and abrasive cleaning.

When preparing for a new or historic masonry project, identify masonry features that are key to the building's overall character. It is important to notice and document masonry unit type and size, masonry color, bonding patterns, mortar joint type and size, and coatings in adjacent existing buildings or the building itself. Observe and record, for example, the range of brick colors on existing buildings. It often takes a blend of three or more brick colors to match the overall visual effect of existing masonry; they are seldom uniform and homogeneous.

Repair masonry by reusing existing bricks or stones whenever possible. Match colors, textures, sizes, shapes, bonding pattern and compressive strength of existing material with new replacement masonry units and stucco. Repoint deteriorated mortar with a mortar compatible in strength, color, and joint profile. Softer, high lime mortars were used in historic buildings and give them the ability to expand and contract without cracking or doing damage to softer masonry elements. Mortar mix available at the local hardware store is generally too hard (it is primarily Portland Cement) and generic in color. Experienced masons will mix cement, sand, lime and any additives on site, so a higher lime mix is not difficult to obtain. The texture and color of the mortar's aggregate is often key to the success of a match.

Spend time researching and choosing a contractor with appropriate training and experience working with traditional masonry and stucco. It will make a dramatic difference in the results and longevity of the restoration. If ivy and other vegetation cover masonry walls, carefully probe to see if they are concealing or contributing to any underlying deterioration. Vegetation does not automatically produce such damage, however, and can be on occasion an important character defining element. Ivy can help insulate your building. If you determine that vines are penetrating cracks in masonry, cut the vine low, allow it to brown and die, and then remove it so you do the least damage possible.

Clean masonry using the gentlest means possible. It is best to avoid harsh chemicals that can permanently damage masonry; many effective methods for cleaning masonry involve water only. Sandblasting or using harsh chemicals to clean masonry, for example, can permanently damage historic masonry by removing their original protective finish and exposing them to rapid weathering.

## Guidelines: Exterior Walls & Trim

1. Exterior wall surfaces define a building's massing and form. Owners are encouraged to match the historic characteristics of the original material such as the distinct bonding pattern of a brick wall, the texture and depth of wood siding, and the three dimensional quality of wood molding.
2. Refrain from introducing or removing windows, doors, chimneys, bays, or other features on character-defining exterior walls.
3. Conserve original materials wherever possible. Repairs are often more successful than first impressions may suggest.
4. Replace in kind features and materials that are deteriorated beyond repair. Replacement should be contained to the repair area only.
5. Match the building's materials in all dimensions (thickness, exposure and profile) and texture. If it is not feasible to replace in kind, substitution should be compatible and historically sensitive.
6. Avoid replacement with contemporary non-compatible materials such as vinyl, aluminum, PVC or panelized siding; this applies also to features, or details such corner boards, cornices and other trim work. Fiberglass or environmentally friendly composites are acceptable for column bases and painted features high up on the building such as brackets and cornice details.
7. Replace a missing exterior wall feature with a new feature or detail that is based upon accurate documentation (photographs, written records, etc.) of the original; new designs should match historic elements in scale, material, and detail. Do not create a false historical appearance by installing conjectural designs not based on evidence.
8. Use maintenance and methods appropriate to the specific material.
9. Avoid painting or coating historically unpainted brick walls; coatings can slow down masonry's ability to dry out, trapping moisture that can freeze and damage the assembly.
10. Remove paint with strippers containing low Volatile Organic Compounds (VOCs), environmentally safe materials and using the gentlest possible methods. Use low pressure water or mist cleaning where necessary. Avoid sandblasting or stripping masonry with harsh chemicals; rough treatments can permanently damage the historic masonry or siding and shorten the lifespan.



*Before starting an historic masonry project, identify masonry features that are key to the building's overall historic character. Document masonry unit type and size, masonry color, bonding patterns, mortar joint type and size, and coatings.*

## Windows



Character defining features of historic windows should be preserved and restored as necessary. Window shutters should be operable.



Existing windows should be repaired rather than replaced. If replacement is proposed, BAR will review on a case-by-case basis.

Windows add depth and variety to historic building facades and can be critical in determining a building's character. In Tuxedo Park, one finds many window styles: double hung, casement, tilting, awning and fixed. All of these types are available for use in new construction, while meeting current performance standards. True divided or simulated divided lights can provide an acceptable exterior appearance, but they must have an exterior, shadow-producing profile to be effective.

### Considerations for Installation, Repair and Maintenance

If your property has original windows, retain and repair them. The cost of repair is sometimes as great as replacement, but it is usually less. Repair is less disruptive to the existing building's fabric. Replacement also normally requires compromises in appearance. Before starting any repair or restoration project, consider the following:

- Know your building's period of construction and style before planning changes to your windows. This will help you choose appropriate measures and materials.
- Common conditions such as flaking paint, broken glass, failing putty or jammed hardware are easily repaired and do not require replacement. If a window component is beyond repair, replace in kind only the deteriorated element while keeping the rest of the window.
- Matching key features, such as muntin profiles, rail and stile proportions and glazing patterns is important to preserving the character of your building.

Historic windows can achieve a high level of energy efficiency if care is taken. Make sure the interior and exterior trim is tight and well caulked around the window unit. Re-putty around glass panes, install weather stripping around the sash, install pulley seals, and repair or rehabilitate sash locks so meeting rails meet and can be pulled together tightly to eliminate drafts. Add interior or exterior storm windows for additional winter protection.

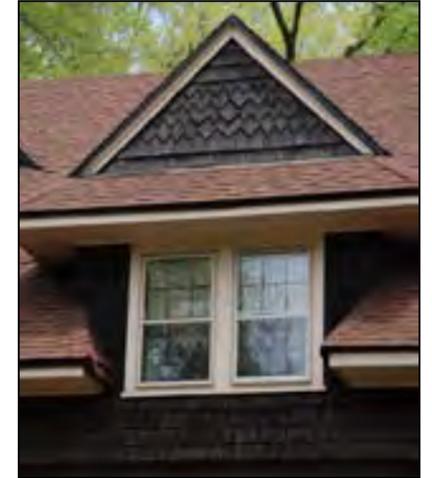
By rehabilitating historic windows, you are preserving historic character and conserving energy that would otherwise be spent in the demolition of old and manufacture of new windows.

In general, to maintain and protect the life of your windows:

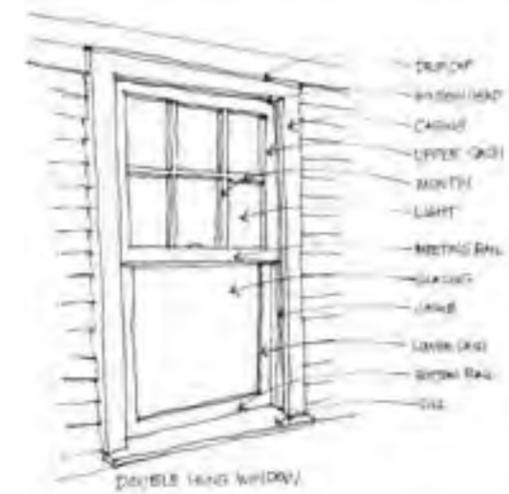
- Implement a regular maintenance plan.
- Pay attention to the energy performance of your window system.
- Add interior or exterior storm windows that are appropriate to the style and material of the window.

## Guidelines: Windows

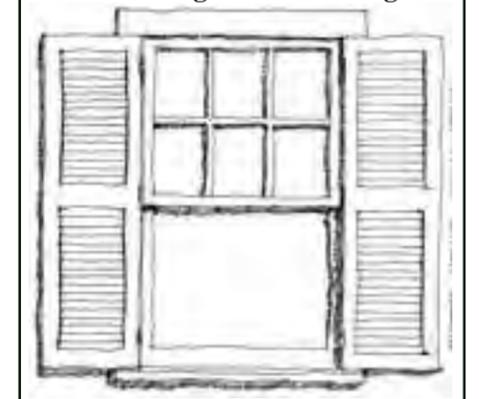
1. Provide exterior shadow producing muntins in a traditional or contextual pattern on new windows
2. Preserve and repair original windows.
3. Replace historic windows only if materials have deteriorated beyond repair. For replacement, original windows should be replaced in kind.
4. Use materials identical or equivalent to those available when the building was originally constructed.
5. Use appropriate repair techniques to maintain, protect and repair historic features, materials and details.
6. Match original materials and key features, such as glazing, rail and stile proportions, and trim sizes, as closely as possible in order to retain the character and architectural integrity.
7. Replicate original muntin widths and profiles when replacing window units. Replacement windows should have true divided-lights.
8. Plan size and location to match the window vocabulary and patterns already evident in the building. Avoid changing the opening size or shape to accommodate standard window size.
9. Preserve and protect stained, art and etched glass. Ornamental glass should not be installed without historic evidence that you are restoring a lost element from your building.
10. Preserve and restore historic window hoods, hardware, ornament or shutter hardware.
11. Install storm windows or screens that do not obscure the original windows. For double-hung windows, for example, align the horizontal bar or rail with the original meeting window rail. Install storm and screen windows in colors that match the original window casing or paint them accordingly. For minimal impact on the building's exterior, consider installing interior screens and interior storm windows.
12. Preserve original window shutters. Replacement shutters should match the window dimensions and shutter style (for example louvered or recessed paneled) of the original. Shutters should be operable. Do not add shutters where none existed in the past. If shutters will be added, historic documentation should show that they existed.
13. Follow EPA lead paint directives.



Replacement windows should match original. Preserve visual integrity by carefully matching glazing, muntin, trim, and other window proportions.



shutter width= 1/2 window width  
shutter height=window height



Shutters should follow the proportions in the diagram above.

## Doors



*All doors visible from public ways should be wood with a painted or clear finish.*

Doors throughout Tuxedo Park vary in size, shape, ornamentation and color. Wood paneled doors predominate, and levels of ornamentation and glazing vary according to architectural style. A close look at existing doors will inform the choice of a new or replacement door.

### ***Considerations for Installation, Repair and Maintenance***

Doors are among the most heavily used building elements, subject to intense wear and tear. A cyclical maintenance routine should include regular inspection, careful repair, and painting. Before starting any repair or restoration project, consider the following:

- Avoid replacing an original door unless the door has deteriorated beyond repair.
- Use the original material if available.
- Match key features, such as glazing, rail and stile proportions, and panel sizes, as closely as possible in order to retain the character and architectural integrity.

Whether you are adding storm/screen doors, or replacing worn out units, you will find that the new installation, properly weather-stripped, can increase energy efficiency in your building. Storm/screen doors should be constructed of wood and should be as transparent as possible, providing maximum visibility of the historic door. Avoid installing any storm/screen with vertical stiles, inappropriate ornamentation, or of an incompatible material.

Door hardware is found in a diversity of sizes, shapes, materials, finishes and details. Individual hardware components vary with the size of the door and the style of the building. Larger doors require heftier hinges. High-style buildings commonly have heavily ornamented pieces while an early 20<sup>th</sup> century residence might retain original stock hardware from a contemporaneous mail-order catalog. Historic hardware provides a level of architectural detail that can be lost when an insensitive replacement is installed. Original pieces, including knobs, rosettes, hinges, locks and backplates, should be retained and repaired. Hardware components can often become built up with layers of paint and not operate efficiently. Removing the paint, cleaning, and polishing will restore the finish and make the hardware operate more smoothly.

In general, to maintain and protect the life of your doors:

- Regularly paint or varnish exterior doors.
- To improve utility and appearance, remove paint, clean and polish to restore the hardware's finish and proper operation.
- Install weatherstripping and caulking to decrease energy loss.

## Guidelines: Doors

1. Use existing doors as patterns for new or replacement doors.
2. Preserve and restore original doors that remain. Replace full door only if it has deteriorated beyond repair. Original door should be replaced in kind. Contemporary materials, such as vinyl and aluminum, are inappropriate.
3. Match key features, such as glazing, rail and stile proportions, and panel sizes, as closely as possible in order to retain the character and architectural integrity.
4. Repair and restore original doors, using epoxy consolidants or Dutchmen (exact material patches) as required.
5. Use appropriate repair techniques to maintain, protect and repair historic features, materials and details.
6. Use materials identical or equivalent to those available when the building was originally constructed.
7. Maintain original door opening size, dimensions and proportions. Altering or constructing a new opening in the front facade is discouraged.
8. Match the original door type and overall configuration of glass, panels and detail. Avoid removing or concealing original door molding. Avoid using undocumented excessively plain or ornamented designs.
9. Retain door surrounds, trim and details, such as decorative entablature, moldings, pilasters, sidelights, and transoms. These features dating from original installation are as significant as the door itself.
10. Regularly paint or varnish exterior door. Use colors that are compatible with the door and trim paint schemes. Maintain a painted or varnished finish on all wood doors visible from public ways (unless historic documentation shows its original material was something else).
11. Retain original hardware; recondition if needed.
12. Install weatherstripping and caulking to decrease energy loss.
13. Conceal contemporary equipment and security apparatus.



*Preserve and repair unique and character defining historic hardware.*



*Repair or replacement of doors with significant glass components should comply with both door and window guidelines.*

## Entrances & Porches



*Follow and adapt successful historic patterns. When repairing or replacing elements in the front entryway, match the original in sizes and scale. Retain as much original historic material as possible. Slope exterior surfaces away from the entry door. Only where deep shelter is provided can the entry material be flush with the door threshold, as in the example above.*

Porches, porticos, and front entrances are prominent elements of a building façade and play a major role in defining a building’s character. The particulars of these entrance features are indicators of the era and style of the building. As significant features of the “face” of a building, porches and porch details should be carefully designed and existing doors should be preserved and retained through ongoing maintenance and prompt repair. Character defining elements include overall size and proportion, columns, brackets, railings, balustrades, balusters, steps and lattice.

Historically, porches were outdoor living spaces where residents could gather and observe and greet passersby. Porches and porticos shelter people from the weather as they arrive and leave the building. The overhang of porches facing south and west shaded front windows and cooled the building, and they were often located to receive prevailing breezes. The surface underfoot can be masonry or wood.

Raised porch floors were usually finished with tongue and groove, painted pine boards oriented perpendicular to the building and sloping strongly from the building face to the porch exterior. They were often built on piers, with latticework between the piers to improve the appearance and deter animals from entering and nesting under the porch. These features present special challenges to those planning to renovate.

### **Considerations for Installation, Repair and Maintenance**

- Follow historic patterns and methods when building entries and porches.
- For existing entries, perform regular inspections for signs of moisture damage, insect or fungal infestation, structural damage, and corrosion.
- Monitor water drainage. Floors and adjacent soil should pitch away from the building.
- Recaulk or repoint surface joints to prevent moisture or air infiltration.
- Prepare surfaces to be painted with a thorough cleaning. This is especially true for heavily soiled areas.
- Maintain all wood entrance and porch surfaces with a paint or stain coating. This will best protect your entrance and porch from moisture, ultraviolet light, and air infiltration.
- Do not put stone or other absorptive material over a wood deck. Stone, brick and tile should be installed on a concrete slab, compacted gravel or masonry base.

## Guidelines: Entrances & Porches

1. Design and build using successful historic patterns in the Park.
2. Provide vigilant maintenance for porches, since they are exposed to the elements and extremely vulnerable to deterioration.
3. Follow historic methods and assemblies, such as sloping, bullnosed porch flooring, since they evolved to promote longevity. Substitute materials should be introduced only after extensive research.
4. Keep in mind the way in which the porch fits into the overall house proportions as well as the landscape and streetscape.
5. Preserve components that define the distinctive character of the house.
6. Maintain the masonry, wood, and architectural metals through sensitive surface treatments such as cleaning, rust removal, limited paint removal, and re-application of protective coatings.
7. Replace in kind any part of a porch, entrance, or balcony that is damaged or deteriorated beyond repair. Match the original in design, dimension, material, detail, pattern, texture, and color. Retain as much original material as feasible.
8. Replacement of a missing entrance or porch should be based on physical evidence (ghosts of old framing, relic foundations and post holes) and pictorial documentation (old photos of your house or photos of a similar house in your neighborhood with an extant porch, or examples of similar houses in historic pattern books). Match the original location of the porch. Most importantly, the facade should remain proportionally and stylistically balanced. A new design should be compatible in scale, material, and detail with the historic character of the building and district.
9. Do not make wholesale changes to historic porches or balconies or introduce new elements that are inconsistent with the house or its history.
10. Do not cover up intact historic features.
11. Open porches offer shelter and shade. If you have to sacrifice them for enclosure, design the enclosure to show its origins as an open porch by keeping columns and railings, and designing windows to look like the storm panels that sometimes provided winter protection on older properties..
12. Avoid adding historically conjectural features to an entrance or porch. Any additions should be based on appropriate historic documentation (such as original architectural drawings and historic photographs).



*Retain and preserve original lattice. For replacement, retain original scale and proportions. Install lattice in framed sections with casings a minimum of 3.5”). Orient lattice vertically and horizontally unless there is strong evidence of an original diagonal arrangement.*



*Where possible, changes to historic entryways should be reversible. For example, a handicapped access ramp is installed in a manner that does not alter the original design of the steps and portico floor.*



*Conversion to other uses should avoid significantly altering character defining features such as materials, window and door openings, and fenestration patterns.*

## Accessory Buildings and Garages

Garages, stables, sheds, and other secondary structures are buildings worthy of attention. In addition to their architectural value, these structures contribute to the visual and spatial character of the overall site. Existing structures provide insight into historic activities and lifestyles over time in Tuxedo Park. For these reasons, accessory structures are governed by the same guidelines used for principal structures.

### ***Considerations for Design, Repair and Maintenance***

Accessory buildings are secondary structures. These buildings should not be designed or altered in a manner that competes in size, massing, or height with the site's primary building. In the case of new construction, new accessory buildings should defer to the primary building. New accessory buildings will be reviewed with the same considerations as new primary construction.

Historic accessory buildings should be protected and preserved. This may include preserving the structure in its present condition, rehabilitating it or adapting it to a new use so that the building continues to serve a function. In the case of rehabilitation or adaptive use, the internal function and design of the building can be altered but the exterior should be preserved in its original design as much as possible.

Before starting any repair or restoration project, consider the following:

- Maintain and use original materials.
- If an element is deteriorated beyond repair, match key features as closely as possible to retain the character and architectural integrity.
- If adapting to another use, all exterior changes should be compatible with the character of the building.

In general, to maintain and protect accessory buildings:

- Inspect the roof annually for soundness and proper drainage. Good drainage ensures that water is not collecting on surfaces or infiltrating the building.
- Inspect annually for signs of moisture damage, rust, insects, and structural or settlement damage.
- Maintain a consistent paint or stain finish on the building's exterior. Finishes minimize damage due to moisture and ultraviolet light.
- Clean painted or stained surfaces using the gentlest effective method. When finish becomes deteriorated, clean and reapply finish.

## Guidelines: Accessory Buildings and Garages

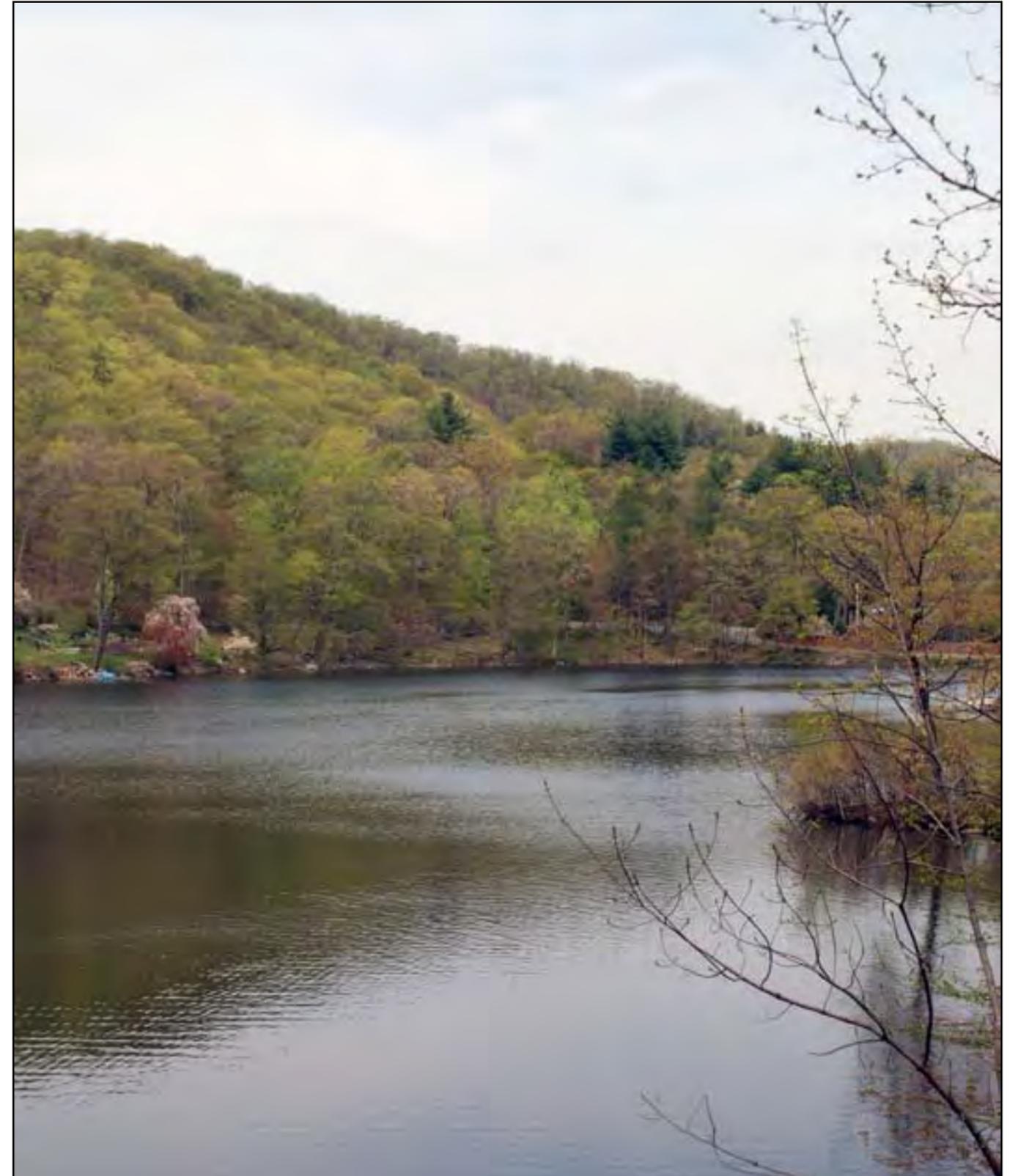
1. New accessory structures should be subservient in size and character to the primary structure – in a matching or contrasting style. Outbuildings should relate closely to site and landscape.
2. Preserve and retain accessory buildings that contribute to the historic character and form of a property. This includes both decorative and functional features.
3. Preserve materials, features, finishes, and construction techniques that contribute to the historic character of accessory buildings.
4. Conversion of historic accessory buildings to other uses should maintain the integrity of building's exterior. Defining features, such as large barn door openings, should be retained.
5. Protect, maintain, and repair architectural features, materials, and details of accessory buildings using appropriate and historically sensitive repair techniques.
6. Replace in kind any portion of an accessory building that is severely deteriorated or damaged beyond repair. Match historic elements in design, material, dimension, pattern, texture, color, and detail. Limit replacement as much as possible.
7. Restore missing details or features using documentation of the original (photographs, architectural drawings, or other historic document). If none exists, a new design must be compatible with historic character of the accessory building. Consult resources about your building's historic period and style for a new design that incorporates the appropriate materials, scale, and details.
8. Avoid compromising the architectural integrity of a historic accessory building by introducing new features. Introduction of conjectural features without historical or physical documentation is inappropriate.
9. Avoid moving a historic accessory building from its original location. The building may be repositioned or moved only to preserve its historic integrity.
10. Retain the greater prominence of the primary building on the site when designing or renovating accessory buildings.
11. New accessory buildings will be reviewed with the same considerations as given to new primary construction (see "New Construction").
12. Garage doors should face the back or side of the property and not be visible from the primary frontage.



*Garage doors should be compatible with the character or the accessory building. Wood hinged doors are preferable. In cases where replacement is necessary, replace to imitate the original structure. Here the window size has changed, and the door is an overhead-swing model, while still matching the historic character.*

# New Construction, Additions & Relocation

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## New Construction



*Careful site planning, including vegetated drainage swales as above, will protect the natural beauty of Tuxedo Park..*



*Looking at and learning from the inventory in Tuxedo park of built work of accomplished architects can help avoid awkward jumbles of material, styles and scale--like the illustration above-- in new construction projects.*

New construction can quickly change neighborhood character. Guidelines for new construction reinforce those aspects of character that the community considers most positive, such as size and scale, placement on the property, ratio of built to unbuilt area on the site, architectural style and materials. The guidelines communicate shared goals that challenge rather than limit the creativity of designers and builders. All new construction within Tuxedo Park should be compatible with the historic character of the overall community, which, given Tuxedo Park's great architectural variety, does not imply that there is a single appropriate style.

### ***Considerations for New Construction***

Given the important architects who have worked in the Park, a good starting point is to select an excellent designer. Consult the American Institute of Architects (AIA) and publications, look at built work, and check references.

Site planning can set new construction projects on the proper course. Locating the new building in sympathy with the landscape and in a manner similar to other historic buildings in Tuxedo Park will go a long way to making new projects compatible. That initial decision will have more impact than smaller details or stylistic consistency. Scale and placement are the most important characteristics to control for new buildings; stylistic details are secondary. Fresh, creative architectural approaches will not be discouraged if they represent a level of effort and excellence that meets the historic or neighborhood standard.

Features specific to the site, such as topography and mature trees, will influence the final choice of location. New construction will require other significant site alterations that should be taken into account--driveways, parking, walkways, landscaping, and lighting. The BAR will review these modifications under the guidelines discussed in the "Landscape and Site Features" section.

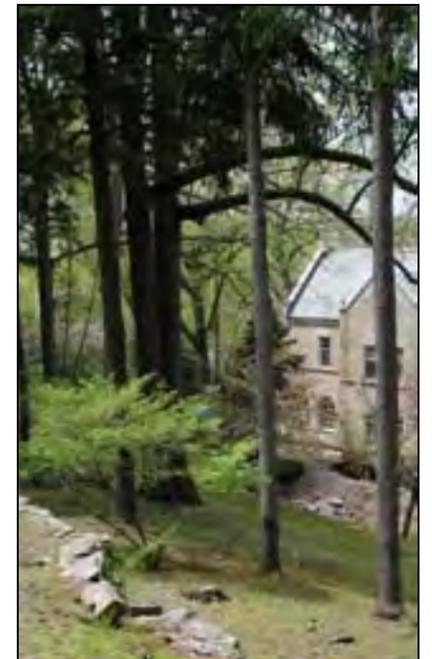
New construction of a style suitable to the historic precedents is encouraged, though a unique design of any style that is sympathetic to the historic context of Tuxedo Park will be fairly considered. A compatible design would take into consideration building height, roof pitch and form, massing and scale. Simple shapes and volumes are preferable to overly ornate structures. Other key criteria include the placement, shape, size, and proportion of the windows and doors. The selection of materials and textures that clad the building and related exterior trim and details offer opportunities to relate new buildings to others in the community. Nothing in these guidelines prohibits the use of modern construction methods and technologies, as long as the appearance and integrity of materials is appropriate to Tuxedo Park.

## Guidelines: New Construction

1. New buildings should adopt and reflect historic settlement patterns using similar setbacks and configurations.
2. The design of new structures should incorporate an initial due diligence process that includes consultation with the building inspector, the chair of the BAR, the Police Department regarding site and roadway issues, the local fire and rescue companies, and the Department of Public Works. This initial review will save time and energy for the applicant and reviewing bodies during the approval process.
3. Site new buildings to maintain the property's natural topography and site features. Preserve local views and vistas.
4. Minimize the impact of a new building by maintaining a similar size and scale as other nearby buildings. New buildings should not overwhelm neighboring buildings with out of scale massing and detailing.
5. Design new buildings using the natural site grade. Excessive fill should not be brought into a new site to create artificial mounds or land forms under or around new structures.
6. Design new buildings that are compatible with neighboring buildings and the overall aesthetic of Tuxedo Park. Height, massing, scale, exterior materials, trimwork, and roof forms should be carefully considered and reflect historic precedents.
7. Design new buildings so that the overall exterior proportions and materials are compatible with existing buildings in Tuxedo Park. As articulated facades are standard in Tuxedo Park, avoid incorporating large blank walls into new designs.
8. Avoid using conjecture to design in an imitative style or building form inconsistent with the current or historic context.
9. Choose exterior cladding materials that are compatible in terms of composition, texture, pattern, color, and detail with the historic buildings of Tuxedo Park. Use materials consistent with existing buildings such as stone, stucco, wood, brick. Imitation materials should not be used.
10. Follow the guidelines from the "Landscape & Site Features" section for planning new driveways, parking, and landscaping.
11. Protect significant existing landscape features from the impact of heavy machinery, traffic, materials storage and excavation during construction.



*New design schemes should preserve local views and vistas*



*Study existing sites in Tuxedo Park to better understand original site planning schemes. New construction should emulate historic examples.*

## Additions to Existing Structures



*Design additions that use building forms similar to those of the historic building. In this example, the roof shapes and lines of the original building are used on the addition. Also, the addition is lower in height and smaller in scale than the original.*

Designing an addition to an existing building, especially one that has historic significance, is a challenging process. As a building ages, occupants and needs change, prompting alterations and additions. When additions are proposed in a historic district, the individual needs of the owners must be balanced with the community's goal to protect and preserve historic character. Significant changes in the form or scale of the existing building could diminish historical authenticity of the historic district.

### *Considerations for Additions*

An acute observer of an addition to an intact historic building should be able to distinguish the new work from the original. The addition should not overpower the original and should sit well in its larger context. A change in setback, a sensitivity of scale, compatible materials and other critical design decisions will help ease the visual transition from older to newer while defining the addition as a product of its own time.

The first consideration when planning an addition is to determine the location. The most appropriate area for an addition is at the rear of the existing building. Siting the addition at the rear, as well as inseting it from the rear elevation corners, provides the most inconspicuous option. The building footprint and massing will also determine visual impact—the addition should be lower in height and appropriately sized in comparison with the original building.

It is essential that the addition's height, massing, and roof form and pitch are all compatible with and deferential to the existing building. Furthermore, special attention must be paid to the compatibility of the addition in terms of the placement, configuration, and overall proportion of window and door openings as well as selection of exterior surface materials and architectural details.

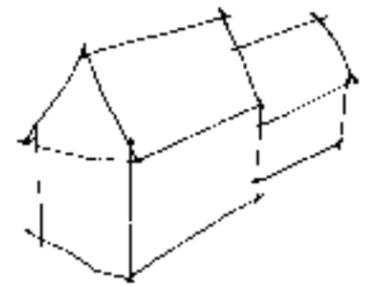
If an older addition already exists, every attempt should be made to preserve an addition that has achieved historic significance in its own right. Such an addition is often similar in character to the original building in terms of materials, finishes and design. A more recent addition that is not historically significant may be considered for removal with code required approvals.



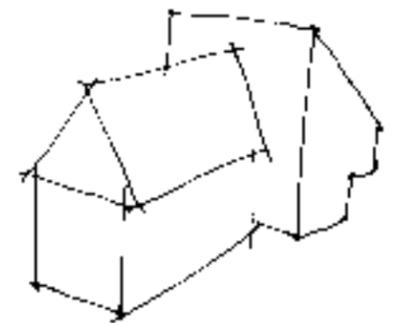
*Protect trees and other site features from construction activity.*

## Guidelines: Additions to Existing Structures

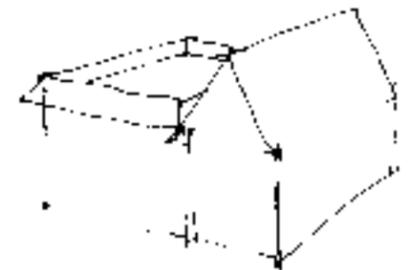
1. Site and design additions that are compatible with the overall historic character of the primary building and landscape. Removal or alteration of original architectural details, cornices and eaves lines should be avoided.
2. Site additions to the rear of the primary building or set additions back from the front to allow the primary building's proportions and character to remain prominent. A minimum setback of ten feet to the rear of primary structures is recommended. Avoid placing an addition in front of the primary structure.
3. Design additions that are compatible in size and scale with the primary building. An addition that is lower than or similar to the height of the primary building is most appropriate.
4. Design additions that are recognized as products of their own time. Original and new should be compatible but distinguishable from one another.
5. Design additions that use building forms similar to those of the primary building. They should not overwhelm the original in scale. Harmonize new work with existing patterns of solid and void. Avoid introducing exotic building and roof forms that would detract from the visual continuity of the overall historic district.
6. Use building connectors when it is necessary to design an addition that is taller than a historic building. The addition should be set back substantially from significant facades and a connector should be used to link it to the historic building. A one-story connector is recommended. The connector should be a minimum of ten feet long between the addition and the primary building and should be proportional to the primary building.
7. Select exterior surface materials and architectural details that are compatible in terms of composition, texture, pattern, color, and detail with surrounding historic buildings. Use materials consistent with the historic districts character defining palette (such as stone, stucco, wood, brick). Imitation materials should not be used. New materials should be similar or subordinate to the original materials. Avoid highly reflective materials.
8. Avoid creating new additions that introduce an appearance inconsistent with the historic character of the primary building. It is not appropriate to create pseudo-historic additions or an inaccurate variation of the primary building's historic style.
9. Protect significant site features from the impact of heavy machinery, traffic, material storage and excavation during construction.



*The best approach for an addition to a historic building. Addition is sited at the rear of the original structure and is deferential in size and scale.*



*Additions should avoid overwhelming the historic section either in size or form. For best results, use building forms similar to those of the original building.*



*The addition should not compete with the original structure, either in size or location. If an addition must be placed to the side of the historic portion, it should be set back a minimum of 10 ft.*

## Relocation

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For historic houses, site and context are integral to historic character. In Tuxedo Park, where the landscape and site are key to architectural intent, this is especially true. Moving a building compromises the historic and physical integrity. The impact may be significant because its relative positioning reflects patterns of development, including spacing of side yards and front setbacks, and may alter its relationship to other historic homes nearby. Relocation is also expensive and time consuming.

Moving a historic house, therefore, is discouraged. However, in some instances it may be the only viable option. Relocation is considered in limited circumstances to preserve the structure's integrity and the Board of Architectural Review (BAR) will only consider relocation to another location on its current site or another site within Tuxedo Park. Relocation to a site outside of Tuxedo Park will not be approved by the ARB because of the negative impact on its historical character and the overall district.

### *Considerations for Relocation*

When proposing a building relocation, prepare to discuss the following with the BAR and provide supporting documentation for your request.

- Reasons for the relocation request.
- Historic significance of the building and the character of its site.
- Location of new site.
- Building orientation in relation to sun direction.
- Building documentation (photographs and existing conditions drawings).
- Plans to secure the structure and provide a new foundation, utilities, and to restore the building.

## Guidelines: Relocation

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1. Relocation should be avoided if possible. If it is necessary locate an historic building in an alternate location on the existing site. It should be similar in terms of setback, spatial relationships, and orientation.
2. Select a new site within Tuxedo Park if it is not possible to relocate on its existing site. The new site should be aesthetically compatible with the original site and similar in terms of setbacks, spatial relationships, and orientation.
3. Before moving create a detailed record of the historic building as it exists on its original site. All documentation will be completed prior to the move and presented to the BAR. Documentation will include:
  - Architectural drawings
  - Photographs (building, site, historic materials, and other relevant images)
  - Detailed descriptions of materials
4. Buildings can be destroyed or damaged in the moving process:
  - Take all precautions to brace the building.
  - Protect the building from weather with robust materials.
  - Secure the building from potential damage due to vandalism.
5. New foundations or rebuilt historic foundations are subject to BAR review and approval. New foundations should be similar to the historic foundation in terms of elevation, materials, design, and dimensions. Raising the building slightly above its historic elevation may be acceptable if there is a threat of flooding or to compensate for foundation shift or settlement.
6. Avoid damage to the original site, relocation route, and new site. Good planning should anticipate potential challenges and offer effective solutions.
7. Work with knowledgeable architects, engineers, and contractors who have previous experience moving historic buildings.



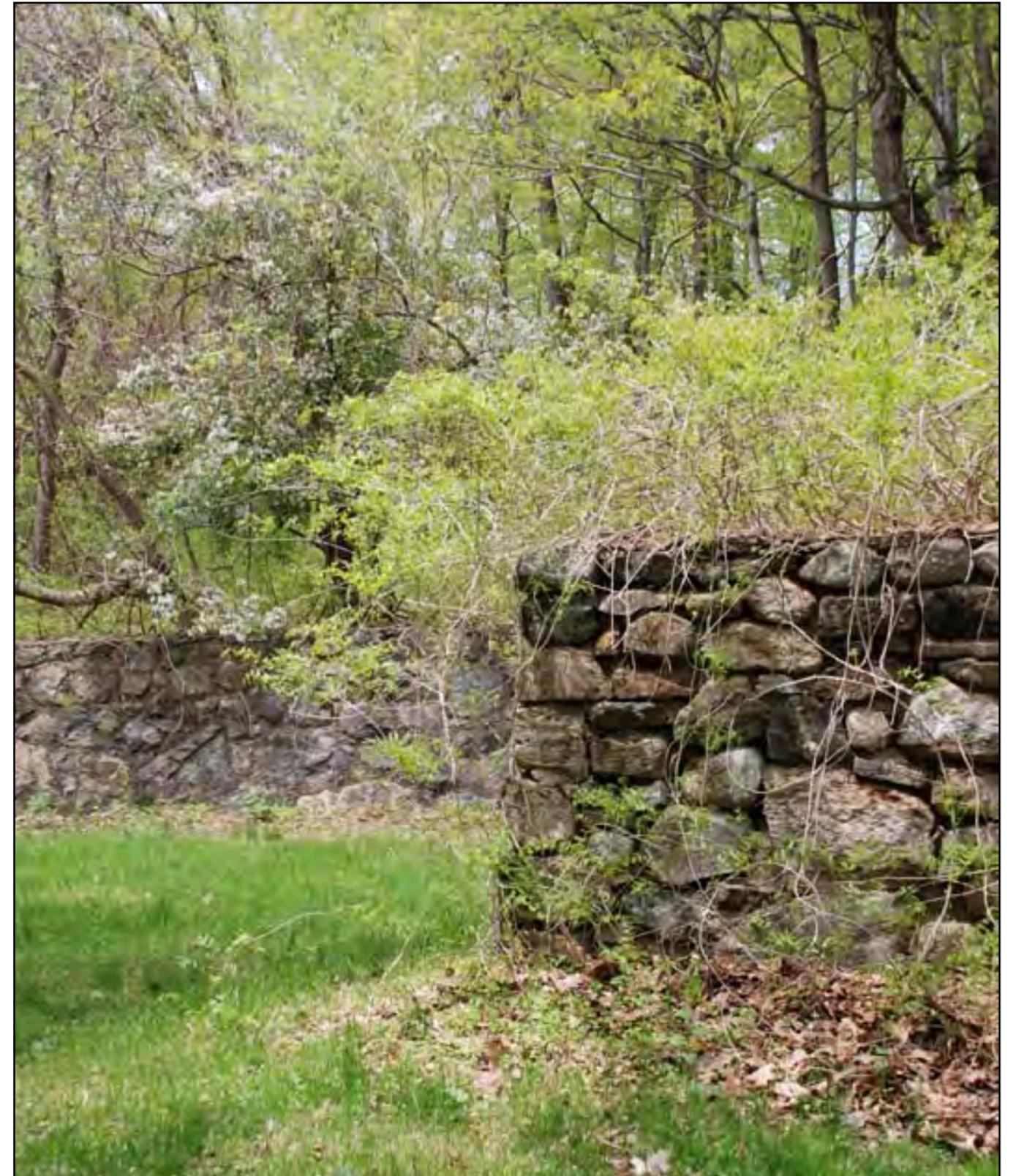
*Relocation is a challenging process. For best results work with professionals who have expertise in moving historic buildings.*



*Rebuilding a historic foundation requires BAR review and approval.*

# Landscape & Site Features

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## Site Planning and Maintenance



*Graded slopes should emulate existing natural terrain.*

*This section, Site Planning and Maintenance, provides general guidelines for site design, landscape planning, and maintenance. The pages that follow discuss individual components of planning and design in greater detail. Changes to existing site conditions are guided by Village Code and the information presented here. BAR site requirements are found in Village Code Section 100, Chapter 54 (§100-54).*

Tuxedo Park's dramatic landscape provides the setting and context for its historic architecture. The relationship between the landscape and architecture has been a hallmark of the community since the first "cottages" were built in the 1880s. The BAR advocates rigorous standards to protect today's landscape and encourage thoughtful and compatible changes for the future.

Shaping land well makes for livable landscapes. The challenging topography of Tuxedo Park calls for careful design and engineering, sound construction and clever water management. Past and present residents have devised dramatic overlooks, impressive terracing and ingenious step sequences—all contributing to the Park's appeal.

### **Considerations for Site Planning**

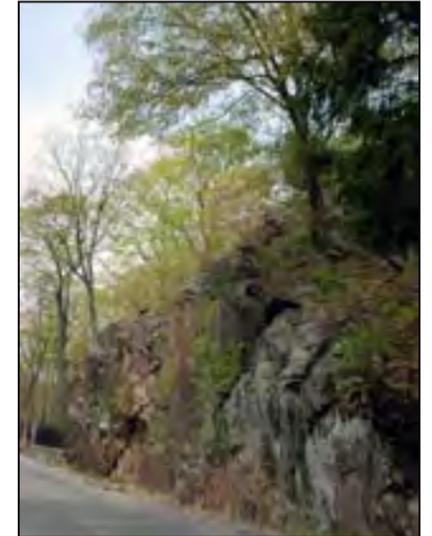
Ongoing preservation and maintenance of site features and plantings is important in preserving historic character. Small losses over time add up quickly and can result in diminished authenticity. The replacement of significant plantings, due to disease or storm damage, with the same or similar species is important for the long term preservation of the district setting. Pay close attention to the potential impact new plantings have on a site, taking care to maintain its historic ethos of openness or enclosure.

When constructing new roads, driveways, and other significant elements avoid unnecessary cutting and filling. Use measures such as laterally balancing cut and fills, alignment with natural contours, and restricting development to gentle climbing gradients. Stormwater measures should follow NY State low impact guidelines. Any visible portions should emphasize natural materials and features compatible with the landscape and structures, rather than intrusive engineering elements. Erosion protection should be provided during construction and permanently designed into all site improvements.

The presence of recreational facilities (pools, tennis court), mechanical equipment, refuse containers, and other "things in the yard" can diminish character in a historic district. Strategic siting and screening of landscape features and plantings can be used to minimize visual impact as viewed from the road.

## Guidelines: Site Planning and Maintenance

1. Preserve and maintain historic site features and plantings integral to your property and Tuxedo Park—landscape topography, mature trees, foundation plantings, hedges, retaining walls, and walkways. The existing, natural contours of the landscape will be preserved to the fullest extent possible.
2. Preserve and repair constructed site features—retaining walls, walkways, fencing, driveways, swales and other elements—using repair techniques appropriate to the specific material.
3. Replace in kind any portion of a constructed site feature that contributes to the historic character of your property and the community. Consider substitute materials only if it is not feasible to replace the feature in kind. Replacement should be based on documentation of the original or upon a new design compatible in material, scale, and detail with the historic character of the building, site, and district.
4. Introduce new site features that do not significantly alter, diminish or compromise the overall character of the building, site, or district.
5. Protect the overall site—site features and plantings—through maintenance of trees and plants. Preservation of mature trees is encouraged. The planting of native trees, plants, and flowers is recommended, particularly deer resistant varieties.
6. Preserve the natural shape and canopy of trees. In the summer, shade trees can provide cooler temperatures and a sustainable means to cut cooling costs.
7. If significant site plantings are damaged or diseased--mature trees, hedges, and foundation plantings--replace them with new plantings of the same species or a contemporary equivalent if they are not available, and that will have a similar size and appearance to the originals when they mature. A species substitution may be permitted for plants habitually destroyed by deer. (see Appendix for more on deer damage). Avoid removing plantings that contribute to the overall character of the historic district unless they are dead, diseased, or damaged.
8. Site terraces, decks, and patios for entertaining away from the front of the house and situated to be as private as possible. The design and materials for these features should be appropriate to the architecture and landscape.
9. Conceal recreational facilities, such as tennis courts and pools, away from public view and with thought given to their impact on abutting neighbors. Screen with a fence and plantings. Facilities should be designed and sited to complement the overall landscape and historic district.



*Significantly visible rock outcroppings should be preserved and incorporated into the site plan.*



*Carefully designed fencing and plantings should be used to screen mechanical equipment, as above, or isolate mechanical noise, as below.*





*This wood picket fence complements its site through form and scale.*



*Preserve historic iron gates which often have unique details that contribute to the overall character of the historic district.*



*New stone walls should replicate historic walls in stone placement and size. Local stone should be used.*

## Fences, Gates and Walls

Fencing, gates and walls should serve necessary practical purposes while contributing to the appeal of the neighborhood. In general, properties in Tuxedo Park are open in feel with screening provided by trees, plants, and natural topography.

Stone walls, iron and wood picket fencing are found throughout the historic district, providing subtle lines of transition between residences. High fences at the perimeter of a property and especially at the front property line can isolate properties from the community and interrupt natural views.

- Preserve and maintain fences, gates and walls that contribute to the overall historic character of Tuxedo Park.
- Maintain, protect, and repair the features, material surfaces, and details of a fence, gate or wall using repair techniques that are appropriate to the specific material.
- Replace in kind elements that are damaged or deteriorated beyond repair. Match distinctive fence or wall features in material, design, dimension, pattern, texture, color, and detail. Limit replacement to the damaged area only.
- Site new fences, gates and walls in locations that are consistent with the traditional relationship of fences or walls to Tuxedo Park properties that are of similar architectural style and district sites of similar size.
- Protect significant site features from damage during or as a result of construction of a fence, gate or wall.
- Introduce simple utilitarian fences (chain link, plastic, lattice), if necessary, *only* in rear or rear side yard locations where they do not compromise the historic character of the site or district. Avoid introducing vinyl, chain link or metal chain link fences where visible from neighboring properties and the street.
- Deer fencing and gates should be minimally visible and blend into the topography and landscape background.

## Driveways and Walks

Driveways, walkways, and swales are subject to review for aesthetic integrity by the BAR. Materials must be natural and complimentary to the main house and overall property. Proper detailing that prevents premature maintenance is recommended. Paths should be safe and comfortable to navigate.

- Preserve and maintain original driveways, walks, and swales that contribute to the overall character of property's architecture and Tuxedo Park. Retain traditional materials.
- Replace in kind any section of an original driveway, walk, or swale that is damaged or deteriorated beyond repair. New section(s) should be based upon historic documentation (photographs or drawings) or upon a new design sensitive in material, scale and detail with the overall character of Tuxedo Park.
- Site new driveways, walkways, and swales in locations consistent with historic properties in Tuxedo Park as well as the primary building's architectural style. Design should be compatible in terms of configuration, material, and scale.
- Site driveways and walkways to minimize the effect of site traffic on abutting roads. Carefully consider the location of vehicular and pedestrian entrances.
- Site driveway and parking areas away from the front façade.
- Select natural materials for surfaces and detailing—gravel, river stone, flagstone, and other appropriate stone materials. Avoid simulated stone and paving in ornamental patterns inconsistent with the style and era of your house.
- Design new driveways, walkways, and swales so the general topography of the site and any significant site features are not damaged or radically altered.
- Minimize cutting and filling for new driveways, walkways, and swales. Use laterally balanced cut and fills. Align with natural contours of landscape topography.
- To minimize visibility from neighbors and adjacent roadways, screen driveways and parking areas with plantings and hedges.
- Protect significant site features—such as mature trees, plantings, stone gateposts—from damage during or as the result of construction.
- Minimize asphalt surfaces; and when necessary to use asphalt, use gravel or stone rolled into a “tar and chip” surface to provide a more rustic appearance.



*Use natural materials for driveway surfaces and detailing. Provide rustic but effective and environmentally sustainable stormwater runoff measures.*

## Retaining Walls and Grade Changes



*Integrate retaining walls and steps into the landscape using natural materials and forms.*



*Consult professionals when contemplating changes in grade. Land changes can impact drainage patterns and nearby properties.*

The installation of retaining walls, steps, and grade changes should be compatible with the natural setting and environment. The natural topography of Tuxedo Park calls for careful design and engineering, sound construction and water management.

Make sure you have the appropriate level of professional help when shaping your land. Consult an engineer or landscape architect to assess the safety and aesthetics of a proposed change. If appropriate, commission professional drawings to ensure that storm water issues are addressed and the work meets standards for health and safety.

If your property has trees, and if you are considering a grade change, consult an arborist about what measures you need to take to protect vegetation. You may learn that your proposed construction will affect a tree's root system so seriously that the tree may die or be too dangerous to keep on your property.

Consult with the Village of Tuxedo Park to learn what kind of professional services you will need to design and file your work.

- Recognize the impact your changes may have on properties above and below you. Changes may affect views, available sunshine and drainage patterns.
- Preserve and maintain existing retaining walls, steps, and grading that contribute to the overall historic character of Tuxedo Park.
- Maintain, protect, and repair the features, material surfaces, and details of a retaining wall, steps, or grading using repair techniques that are appropriate to the specific material.
- Replace in kind elements that are damaged or deteriorated beyond repair. Match distinctive features in material, design, dimension, pattern, texture, color, and detail. Limit replacement to the damaged area only.
- Use sound proven materials for new masonry work.
- Follow guidance and requirements from the Village on storm water management during construction to minimize impact. Land form changes can alter drainage patterns and affect your neighbors.
- Avoid undertaking a project on your own without thorough mastery of earthworks issues and techniques on sloping sites.

## Exterior Lighting

To maintain the historic ethos of the community and its rural connection to the natural environment, outdoor light levels should be low. Some early 20th century houses may have original light fixtures, probably of the lantern type. *Traditional Building* magazine offers a product gallery listing suppliers of reproduction historic light fixtures. Among those fixtures you may discover fixtures suitable to your house to be deployed sparingly for wayfinding to the front entrance or significant destinations. Select fixtures that are compatible with the character of the house in terms of its design, material, size, scale, and color.

New understandings about the environmental and cost-benefits of reduced landscape lighting have produced the Dark Sky initiative (see Appendices). Supplementary exterior lighting should be understated and not compete or distract from the character of the Park.

- Maintain, protect, and repair the historic lighting fixtures using repair techniques that are appropriate to the specific material. The historic lamps contribute to the overall historic character of the community.
- Limit lighting on your property so it contributes to safety and continuity in your neighborhood. Light from your property should not spill onto that of your neighbors.
- For way-finding—paths to the front door, garage, and lighting for outdoor recreation areas—use minimal period or inconspicuous contemporary “dark sky” fixtures that conceal the light source while providing illumination.
- Avoid over illumination. Lamp sources should be shielded from view and light sources directed downward. Exterior lighting should not throw light on facades, trees, and shrubs or create a “runway” effect by too closely placed footlights along driveways and paths.
- Adopt ways to reduce electricity use such as fluorescent or LED lamps, timers, and light or motion sensors. Set to allow short “on times” and reduced sensitivity to wind, cars, and small animal movement. Avoid having outdoor lights on longer than necessary.
- If you opt for historic fixtures, select new exterior lighting that is consistent with the period of your the house. Style and materials are especially important for light fixtures that are visible from the public way. Avoid choosing generic old-fashioned fixtures.
- If your house pre-dates pumped gas or electrification, choose new lighting in the form of the earliest fixtures that might have been added to your property; later houses probably have also lived through a succession of owners and technologies, and today's residents should select fixtures for porch and front door that suit the scale, materials and style of their structure's character defining elements; energy-saving lighting is available for many styles.



*Preserve and maintain historic lighting. Original fixtures are often irreplaceable.*



*Select lighting fixtures appropriate to the building's architectural style.*



*An example of downlighting integrated into a stone gatepost.*

## Construction Impact on Trees

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Mature trees now grace properties throughout Tuxedo Park. Trees impart a sense of history while cooling our communities, reducing pollution and taking up CO<sub>2</sub>. Trees are character-builders in a community, some rising to informal landmark status.

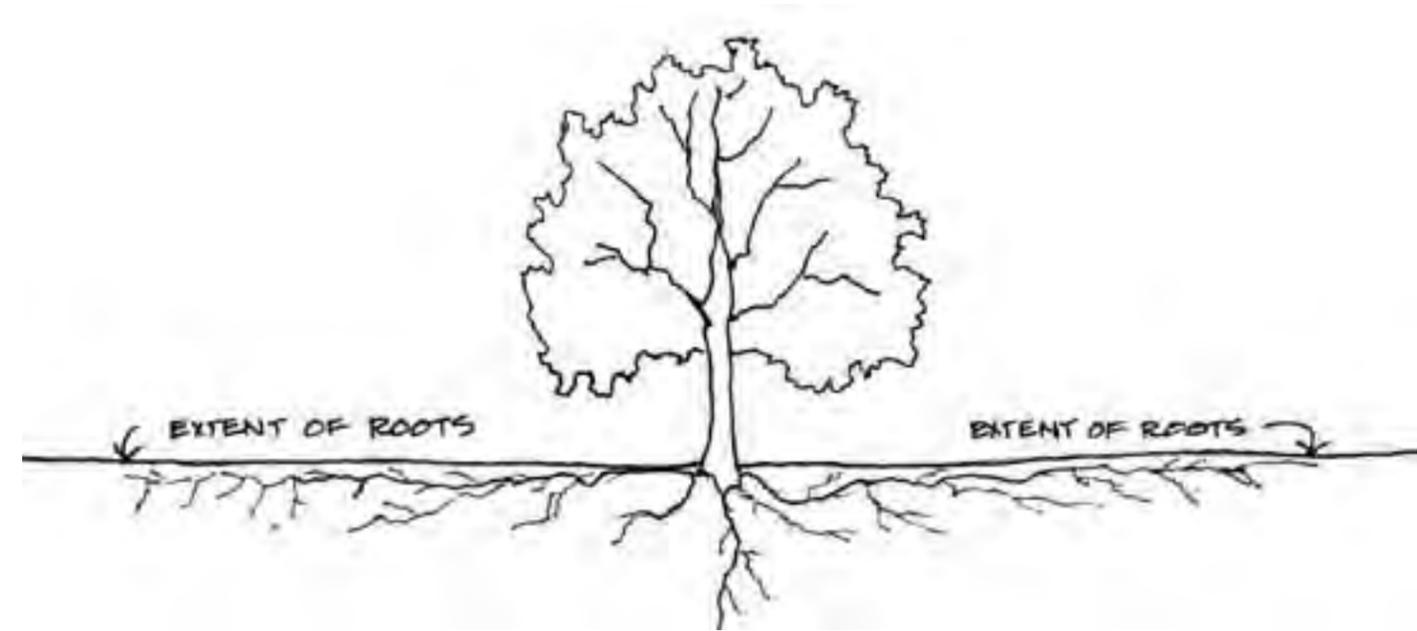
If you are considering removing a tree to make way for a new feature on your property, assess what the loss of shade will do to the temperature of your house and your air conditioning bills, and of your neighbors', if the tree shades your neighbor's house.

If you are contemplating changes to your property—such as garden terracing, a new addition or a new driveway, understand that the root system of a mature tree extends well beyond its drip line. Most tree roots are found in the top 6 to 24 inches of soil.

Changes in grade—either digging and cutting roots, or adding soil and smothering roots—have a profound, enduring negative effect on the health of the tree. Instead of trenching, use an auger or air spade to install underground piping and utilities. Plan your changes with this in mind.

### *Guidelines for Healthy Trees*

- Inventory your trees and assess the positive impact they have on your property for screening, shade and beauty as well as the problems they may be creating such as buckling walkways, moisture capture near the house, branch drop, root competition etc.
- Establish a schedule for regular tree inspections by a certified arborist and follow recommendations for maintaining their health and safety.
- Plan grade changes and construction activity mindful of the fragility of tree root systems.
- Consult a certified arborist for best ways of protecting trees you want to enjoy in the future.
- Site new parking areas (causing soil compaction) away from valuable trees. Parking areas should not be placed under old trees you wish to keep healthy.
- Protect trees from construction activity, materials storage and soil stockpiling on the root systems of trees.



**Most fine roots supporting tree life grow in the top 6 inches of soil**

### *Tree Root Radius Rule of Thumb*

#### **Young trees**

Measure diameter of trunk at 4 feet above grade in INCHES.

Multiply results by .75.

The results will be the root radius measured in FEET

In other words, the diameter in inches X .75 = root radius measured in feet.

So 9" diameter young tree should have a circle of undisturbed soil with a radius of 6.75 feet—total diameter of 13.5 feet.

#### **Mid-aged trees**

Measure diameter of trunk at 4 feet above grade in INCHES

Multiply results by 1.0.

The results will be the root radius measured in FEET.

#### **Old trees**

Measure diameter of trunk at 4 feet above grade

Multiply results by 1.5

The results will be the root radius measured in FEET

So a 40 inch diameter tree should have a circle of undisturbed soil with a radius of 60 feet—total diameter of 120 feet.

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## Suggested References

Baker, John Milnes. *American House Styles A Concise Guide*. New York: W.W. Norton & Company, 1994.

This guide includes many styles and breaks them down into more specific groups than most. Entries are shorter than those in other books.

Blumenson, John J. G. and Nikolaus Pevsner. *Identifying American Architecture: A Pictorial Guide to Styles and Terms: 1600-1945*. New York: W.W. Norton & Company, 1978.

Delehanty, Randolph. *In the Victorian Style*. San Francisco: Chronicle Books, 1991.

Goff, Lee. *Tudor Style: Tudor Revival Houses in America from 1890 to the Present*. New York: Universe, 2002.

Harris, Cyril M. *American Architecture: An Illustrated Encyclopedia*. New York and London. W.W. Norton and Co., Inc.: 1995. Thorough, definitive and accessible guide to the built environment.

Howard, Hugh, *How Old Is This House?* New York: The Noonday Press, Farrar Strauss and Giroux, 1989.

A user-friendly guide to dating houses by their construction techniques and hardware. Includes brief descriptions of historic styles.

Jeffrey Howe, Editor. *The Houses We Live In: An Identification Guide to the History and Style of American Domestic Architecture*. San Diego: Thunder Bay Press, 2002.

Detailed descriptions, explanatory line drawings and diagrams, and color photographs explain and illustrate a plethora of architectural styles.

McAlester, Virginia and Lee. *A Field Guide to American Houses*. New York: Alfred A. Knopf, 1986.

One of the better summaries, including both diagrams and photographs, of historic architectural “styles” in America.

Mitchell, Eugene, Ed. *American Victoriana: Floor Plans and Renderings from the Gilded Age*. San Francisco. Chronicle Books, 1979.

Morgan, Bret. *Shingle Styles: Innovation and Tradition in American Architecture, 1874 to 1982*.

New York: Abrams, 1999.

Poppeliers, John C., S. Allen Chambers, Jr., and Nancy B. Schwartz. *What Style is It? A Guide to American Architecture*. New York: John Wiley & Sons, 2003.

A brief, concise style guide.

Skully, Vincent J. Jr., *The Shingle Style and The Stick Style*, New Haven and London, Yale University Press, 1955, rev. 1971. The classic reference for wooden suburban architecture of the late 19th c.

Sonne, Christian R. and Chiu yin Hempel. *Tuxedo Park: The Historic Houses*. Tuxedo Park, NY: Tuxedo Park Historical Society, 2007.

Ware, William R. *The American Vignola, A Guide to the Making of Classical Architecture*, New York, Dover Publications, 1994, Norton & Co. 1977. A useful compendium for designers and critics.

## Resources for Technical Information

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### Principles of Historic Preservation

<http://www.nps.gov/history/hps/tps/tax/rhb/stand.htm> directs you to information regarding appropriate treatments for preserving a historic property. The National Park Service hard copy publications are *The Secretary of the Interior Standards for Rehabilitation* and *The Secretary of the Interior's Guidelines for Rehabilitating Historic Buildings*.

[www.preservationbooks.org](http://www.preservationbooks.org) is the publications website for the National Trust for Historic Preservation. Books deal with the underlying philosophies of historic preservation, economics of preservation; tax advantages; preservation of particular building types; design reviews and regulations; architectural elements; neighborhood protections and Main Street revitalization, to sample from their list. The publications list represents the collected thinking of preservationists (and activists for community development) from across the country.

Rypkema, Donovan. *Economics of Historic Preservation: A Community Leader's Guide*. Washington, D.C.: National Trust for Historic Preservation, 2005. This vigorously argued book provides a solid economic rationale for community historic preservation. It is a valuable tool for board members asserting the benefits of appropriate controls.

### General Interest

[www.oldhouseonline.com](http://www.oldhouseonline.com) opens to an array of Old House periodicals and more.

*Old House Journal Magazine*, *Old-House Interiors*, *Early Homes*

*Old House Journal* is full of useful articles for owners of historic houses. Published 6 times a year.

Many articles are also available online at [www.oldhousejournal.com](http://www.oldhousejournal.com)

#### *Traditional Building*

An excellent resource for locating manufacturers and tradesmen.

[www.traditionalbuilding.com](http://www.traditionalbuilding.com)

Foulks, William G. *Historic Building Facades. The Manual for Maintenance and Rehabilitation*. New York: John Wiley and Sons, Inc., 1997.

Poore, Patricia. *The Old House Journal Guide to Restoration*. New York: Penguin Books, 1992.

Taylor, Julie, ed. *Northeast Preservation Sourcebook*. Vienna, VA: Preservation Publications, LLC, 1999. A directory of 6,500 regional preservation suppliers, including manufacturers, contractors, and design professionals. Updated frequently.

The **National Trust for Historic Preservation** offers useful guidance for owners of vintage buildings on such subjects as weatherization and lead paint. A visit to their website links you to countrywide efforts to maintain America's legacy.

<http://www.preservationnation.org/issues/>

National Park Service (NPS)/Department of the Interior offers restoration standards, design guidelines and useful technical information including the entire preservation briefs and tech notes series. An easy to use, detailed and illustrated guide to the Secretary of the Interior's Standards for Rehabilitation is available at [www.nps.gov/history/hps/tps/standguide/](http://www.nps.gov/history/hps/tps/standguide/)

Preservation Briefs provide guidance on preserving, rehabilitating and restoring historic buildings. <http://www.nps.gov/history/hps/tps/briefs/presbhom.htm>

Tech Notes are similar to Preservation briefs and offer case studies of restoration problems and solutions. They are available at: <http://www.nps.gov/history/hps/tps/technotes/tnhome.htm>

#### Historic New England

Historic New England offers information on subjects such as historic paint colors, funding sources, finding contractors, and more. See especially their Preservation and Publications listings. [www.historicnewengland.org](http://www.historicnewengland.org)

#### Roofing Information

Jenkins, Joseph. *The Slate Roof Bible: Understanding, Installing and Restoring the World's Finest Roof*. Joseph Jenkins, Inc., 2003.

"From Asbestos to Zinc: Roofing for Historic Buildings."

This site is an electronic version of an exhibit prepared for roofing professionals attending the 1999 Roofing Conference and Exposition for Historic Buildings in Philadelphia, Pennsylvania. With good illustrations, it includes information on different types of historic roofing and gutters and modern variations.

<http://www.nps.gov/history/hps/tps/roofingexhibit/introduction.htm>

"Preservation Brief No. 4: Roofing for Historic Buildings."

available at <http://www.nps.gov/history/hps/tps/briefs/brief04.htm>

"Preservation Brief 19: The Repair and Replacement of Historic Wooden Shingle Roofs." available at [www.nps.gov/history/hps/tps/briefs/brief19.htm](http://www.nps.gov/history/hps/tps/briefs/brief19.htm)

"Preservation Brief 29: The Repair, Replacement, and Maintenance of Historic Slate Roofs." Available at <http://www.nps.gov/history/hps/tps/briefs/brief29.htm>

"Preservation Brief 30: The Preservation and Repair of Historic Clay Tile Roofs."

Available at <http://www.nps.gov/history/hps/tps/briefs/brief30.htm>

Slate Roof Stand-Ins: A buyer's guide to man-made substitutes for natural stone.

Available at [www.oldhousejournal.com/magazine/2002/july/slate.shtml](http://www.oldhousejournal.com/magazine/2002/july/slate.shtml)

"Standing Seam Metal Roof" *Old House Journal*, July/August 2002

#### Masonry information

London, Mark. *Masonry: How to Care for Old and Historic Brick and Stone*. Washington, D.C.: The Preservation Press, 1988.

"Brick by Brick" *Old House Journal*, May/June 1994.

Includes a glossary of brick types and masonry materials to aid in matching.

"Mastering Brick Maintenance," *Old House Journal*, May June 1994.

Good guide to maintaining brick exteriors.

"Preservation Brief 01: Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings," available at <http://www.nps.gov/history/hps/tps/briefs/brief01.htm>

"Preservation Brief 02: Repointing Mortar Joints in Historic Masonry Buildings."

Available at <http://www.nps.gov/history/hps/tps/briefs/brief02.htm>

"Preservation Brief 22: The Preservation and Repair of Historic Stucco."

Available at <http://www.nps.gov/history/hps/tps/briefs/brief22.htm>

#### Paint: Lead and safety

[www.epa.gov/getleadsafe](http://www.epa.gov/getleadsafe) This site describes the risks of lead paint and the new certification program for dealing with lead paint.

Go to [nps\\_hps-info@nps.gov](mailto:nps_hps-info@nps.gov) to order a hard copy of *Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing*.

Delany, Marc and Livingston, Dennis. *Maintaining a Lead Safe Home: A Do-It-Yourself Manual for Home Owners and Property Managers* paper, 1997

#### Paint schemes

Rossiter, E.K. and F. A. Wright. *Authentic Color Schemes for Victorian Houses: Comstock's Modern House Painting* 1883. Mineola, NY: Dover Publications, Inc. 2001

An unabridged reproduction of an 1883 painting guide with many color plates showing authentic color schemes for Queen Anne houses.

Moss, Roger. *Century of Color: Exterior Decoration for American Buildings, 1820-1920*. Watkins Glen, NY: The American Life Foundation, 1981.

Includes many historic color plates of Four Squares, Colonial Revival, and Queen Anne style houses and an architectural glossary.

Moss, Roger W. (Editor). *Paint in America: The Colors of Historic Buildings*. Washington, D.C.: The National Trust for Historic Preservation, 1994.

A more technical guide that includes chapters on paint analysis techniques, paint technology, and painting techniques.

## Paint schemes (continued)

Moss, Roger W. and Winkler, Gail Caskey, Victorian Exterior Decoration. *How to Paint Your Nineteenth Century American House Historically*. New York: Henry Holt and Co., 1992.

A clearly written guide to paint treatments and shifts in fashion through the 19th century including advice on how to achieve historic colors with currently available products.

Bock, Gordon. "Colorful Issues in Choosing Exterior Paint," article available at [www.oldhousejournal.com/magazine/2001/march\\_april/exterior\\_paint/default.shtml](http://www.oldhousejournal.com/magazine/2001/march_april/exterior_paint/default.shtml)

<http://www.welshcolor.com/index.html> Website of company that does paint analysis. Their promotional materials explain the testing process.

"Preservation Brief 10: Exterior Paint Problems" <http://www.nps.gov/history/hps/tps/briefs/brief10.htm>. Good leads on proper preparation, application, paint selection.

"Preservation Brief 28: Painting Historic Interiors." <http://www.nps.gov/history/hps/tps/briefs/brief28.htm>. Although this article is about interior paints, it includes useful sections on paint investigation, paint formulations, and surface preparation.

The entire National Trust Historic Color paint collection listing colors in all National Trust Properties is found at this site.

<http://www.preservationnation.org/about-us/partners/corporate-partners/valspar/paint.html>

An associated link,

<http://www.valsparpaint.com/en/explore-colors/color-selector/index.html#> offers an extensive array of colors to help you with paint selection.

## Shutters

[http://www.oldhousejournal.com/magazine/2002/august/shutters\\_dos\\_donts.shtml](http://www.oldhousejournal.com/magazine/2002/august/shutters_dos_donts.shtml)

Brief clear article on shutters

## Additions and New Construction

Byard, Paul. *The Architecture of Additions: Design and Regulation*. New York: W.W. Norton, 1999. A thoughtful architect/lawyer examines significant and often controversial additions through history. Must reading for Ossining board members.

Shirley, Frank. *New Rooms for Old Houses*. Newton, CT: Taunton Press, 2007. The architect author helps readers work comfortably within American house styles to meet new space needs. Illustrated with examples of successful alterations/additions.

## Outdoor lighting

<http://www.darksky.org/mc/page.do?sitePageId=58881> Recommendations from the International Dark Sky Association explain objectives and economies of modified lighting.

## Historic landscapes

"Preservation Brief 36: Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes."

Available at <http://www.nps.gov/history/hps/tps/briefs/brief36.htm>

<http://www.nps.gov/history/hps/tps/briefs/brief32.htm> This Preservation Brief provides excellent grounding in making historic properties accessible.

Adams, Denise Wiles, *Restoring American Gardens: An Encyclopedia of Heirloom Ornamental Plants*. Portland, Cambridge: Timber Press, 2004.

Well illustrated, inclusive, clear overview of the development of American garden tastes and plant selections. Especially useful for those interested in middle class garden habits.

Doell, M. Christine Klim, *Gardens of the Gilded Age*. Syracuse, New York: Syracuse University Press, 1986.

An apt and excellent overview of garden design and practice on prosperous properties in the 19th century.

Downing, Andrew Jackson, *Landscape Gardening and Rural Architecture*. New York. Dover Publications, 1991 reprint of 1865 7th edition.

A primary source. Inspiration and advice from America's tastemaker on home and grounds. Downing's works launched a Hudson Valley landscape style that spread across the country.

Favretti, Rudy J., *For Every House A Garden: A Guide for Reproducing Period Gardens*. Chester, Connecticut: Pequot Press, 1977.

Thumbnail descriptions of period-appropriate gardens.

Favretti; Rudy J., and Putnam, Joy. *Landscapes and Gardens for Historic Buildings*. Nashville: American Association for State and Local History, 1978.

Leighton, Ann. *American Gardens in the Eighteenth Century "For Use or for Delight"*. Amherst: University of Massachusetts Press, 1986.

Leighton is an excellent first reference for information on plant usage.

Leighton, Ann, *American Gardens of the Nineteenth Century "For Comfort and Affluence"*. Amherst: University of Massachusetts Press, 1987.

Leighton has culled contemporary garden writers, and plant catalogs to provide a bountiful overview of 19th century gardening.

Scott, Frank, *Victorian Gardens: The Art of Beautifying Suburban Home Grounds*. New York: D. Appleton and Co., 1879 (reprint) Watkins Glen: American Life Foundation.

A Downing disciple, Scott offers detailed instruction on landscape construction and plants and gives guidance on planning village improvements.

Sternberg, Guy. "Living History" *Old House Journal*, November/December 2002, pages 31-35.

# Architectural Terms

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## Glossary of Common Architectural Terms

Some definitions shown below are quoted from Cyril M. Harris. *Dictionary of Architecture & Construction*. New York: McGraw-Hill, Inc., 1993. Some are quoted from Baker H. Morrow. *A Dictionary of Landscape Architecture*. Albuquerque: University of New Mexico Press, 1987.

**arch** – a curved structure designed to support weight above. Arches can also be used as a decorative element on an exterior facade. Types of arches can include round, pointed, segmental, and Tudor.

**architrave** – in Classical architecture, the top portion of an entablature, consisting of a decorative, engraved horizontal molding.

**backplate** – a flat piece of wood or metal on a wall or ceiling to which fixtures or fittings are attached.

**back prime** – to apply paint or stain on the reverse or hidden side of an object, usually for protection against the weather; with wood, to provide protection from moisture so wood does not cup or become distorted

**baluster** – a short, vertically-oriented member designed to support a handrail. A row of repeating balusters form a balustrade.

**bay** – a vertical opening on the exterior façade of a structure. This term is commonly used to describe a building's exterior dimensions. For example: 4 bays wide, 5 bays deep.

**bay window** – a window in a protruded bay, or the bay itself.

**board and batten** – a type of wall cladding for wood-frame houses; closely space, applied boards or sheets of plywood, the joints of which are covered by narrow wood strips.

**bonding pattern** – a repeated pattern of masonry units in a planar surface

**brace** – a stiffener in a wall assembly, often diagonal

**bracket** – any overhanging member projecting from a wall to support a weight (such as a cornice) acting outside the wall.

**cheek wall** – a narrow, upright section of wall, often forming the side of a masonry element such as a porch or stoop; in landscape construction, a wall built alongside a series of steps to retain abutting earth.

**clapboard** – a type of house siding consisting of horizontal beveled pieces of wood that are thinner at the top than the bottom.

**column** – a vertically-oriented structural support. In Classical architecture, the appearance and configuration of columns on a given structure was based upon one three schools of design known as Doric, Ionic, and Corinthian.

**compressive strength** – the maximum compressive stress which a material is capable of sustaining.  
consolidation – binding wood fibers or other fragments together with a material such as epoxy to achieve an intact, durable form.

**corbel** – a Classical architectural element consisting of a decorative molding extending from a wall for structural support, decorative purposes, or both. Usually masonry.

**corner board** – a board which is used as trim on the external corner of a wood-frame structure and against which the ends of the siding are fitted.

**cornice** – a molded horizontal projection or mold that crowns or finishes the top of a mall, façade, building or storefront; the uppermost and most prominent part of a Classical entablature  
course – a layer of masonry units running horizontally, sometimes as a decorative band.

**crenellation** – a decorative roof element designed to lend the appearance of a Medieval castle that consists of a series of vertical cutouts made into a parapet. Utilized at times in Gothic Revival architecture and various subtypes, such as Collegiate Gothic.

**dentil** – small, tooth-like moldings, usually found on a structure’s cornice.

**dormer** – a structure projecting from a sloping roof that usually has a vertical window or vent  
double hung window – a window with two sashes, one of which slides over the other.

**downspout** – a vertical pipe, often of sheet metal, used to conduct water from a roof-drain or gutter to the ground, subsurface pipe, splash block or cistern.

**dutchman** – a small piece or wedge inserted as filler to stop an opening, or, a small piece of material used to cover a defect, to hide a badly made joint etc.

**eave** – on a roof, the underside of the portion of the roof that projects beyond the edge of a wall.  
entablature – in Classical architecture, beams or horizontal band (molds) supported by columns  
façade – the exterior face of a building which is the architectural front, sometimes distinguished from the other faces by elaboration of architectural or ornamental details.

**entasis** - the intentional slight convex curving of the vertical profile of a tapered column; used to overcome the optical illusion of concavity that characterizes straightsided columns.

**facade** – external face or elevation of a building, especially the principal front.

**fanlight** – a semicircular window opening over a doorway. See also Transom.  
flashing – a thin impervious material placed in construction (e.g. in mortar joints and through air spaces in masonry) to prevent water penetration and /or to provide water drainage, esp. between a roof and wall, and over exterior door openings and windows.

**fascia** – a flat board with a plain vertical face at the eaves level. Rain gutters are often mounted on it.

**frieze** – the central portion of a Classical entablature, located between the architrave below and the cornice above, also horizontal trim connecting the siding and cornice at the top of a façade (exterior) or wall (interior).

**gable roof** – a type of roof containing a triangle-shaped vertical surface between a roof’s ridge and eaves  
**galvanic action** – an electrochemical action which takes place when dissimilar metals are in contact in the presence of an electrolyte, resulting in corrosion.  
[http://www.pemnet.com/design\\_info/galvanic.html](http://www.pemnet.com/design_info/galvanic.html) gives a basic description of the phenomenon.

**galvanized metal** – galvanized iron sheet metal of iron coated with zinc to prevent rusting; used extensively for flashings, roof gutter, gravel stops, flexible metal roofing, etc.  
gambrel roof – a type of roof in which each of its sides has two different slopes between the central ridge and the eaves. Commonly found on Dutch Colonial structures.

**glazing** – setting glass in an opening; the glass surface of a glazed opening.

**glazing bar** – one of the vertical or horizontal bars within a window frame which hold the panes of glass; a muntin.

**half-timbering** – the use of exposed wood framing on exterior of a structure. Originally used on Medieval-era structures in Europe, it is commonly associated with Tudor Revival structures in the United States and is often false half-timbering, purely a decorative element.

**hipped (hip) roof** – a roof which slopes upwards from the adjoining sides of a building, requiring “hip” rafters at the corners.

**keystone** – on an arch, the stone located at the highest point, defining the position of the other stones that make up the rest of the arch.

**knee wall** – a low wall that is less than one story tall and normally meets a sloping roof or ceiling.

**lancet window** – also known as a pointed arch window, these are narrow, tall windows in which the top of the opening is curved, with the two vertical sides meeting at a point. Common on Gothic Revival structures.

**lattice** – a network, often diagonal, of strips, rods, bars, laths, or straps of metal or wood, used as protection, screening or for airy, ornamental constructions.

**laylight** – a glazed opening in a ceiling to admit light (either natural or artificial) to a room below.

**leader** – a vertical pipe, often of sheet metal, used to conduct water from a roof-drain or gutter to the ground, subsurface pipe, splash block or cistern

**lime mortar** – a mortar made by mixing lime putty and sand; often used in historic masonry because of its flexibility and compatibility with softer masonry units.

**lintel** – a horizontal member located above a window or other opening.

**louver** – an assembly of sloping, overlapping blades or slats; may be fixed or adjustable; designed to admit air and/or light in varying degrees and to exclude rain and snow; esp. used in doors, windows and the intake and discharge of mechanical ventilation systems.

**mass** – the physical size and bulk of a building or structure.

**medallion** – a decorative circular or oval shaped ornament.

**meeting rail** – in a double-hung window, the horizontal member at the top of the lower sash, or the horizontal member at the bottom of the upper sash.

**modillion** – a horizontal bracket or block at the underside of a cornice.

**molding** – a member of construction or decoration so treated as to introduce varieties of outline or contour in edges or surfaces...as on cornices, capitals, bases, door and window jambs and heads, etc. may be of any building material, but almost all derive...from wood ...or stone prototypes.

**muntin** – a secondary framing member to hold panes within and window, window wall or glazed door; also called a glazing bar, sash bar, window bar, or division bar.

**oculus** - a circular window or opening, often placed in a central location on a structure's façade.

**parapet** – a wall at the edge of a roofline, often extending beyond it, that defines the end of the structure's façade and the beginning of the roof.

**pediment** – the triangular surface of a gable roof, or a similarly-styled triangular molding surrounding a window or entryway.

**pilaster** – an engaged column or pier; a simulated pillar that projects slightly from the wall, often with capital and base.

**plumbing vent** – or stack vent or soil vent pipe; a pipe penetrating the roof that vents sewer gasses from household drains.

**portico** – a porch or covered walk consisting of a roof supported by columns, often at a structure's entry.

**profile** – in architecture, the outline of a built assembly.

**quoins** – decorative brickwork or stonework utilized at the corners of a structure's exterior walls.

**rafters** – rectangular timbers used in the construction of pitched roofs supporting the roof covering.

**rail** – a horizontal piece in a frame or paneling as a door rail, or in the framework of a window sash  
ridge – line at the intersection of upper edges of two sloping roof surfaces.

**rosette** – a round pattern with a carved or painted conventionalized floral motif; a circular or oval decorative wood plaque use in joinery, such as one applied to a wall to receive the end of a stair rail; an ornamental nailhead or screwhead.

**sandblast** – to use sand, propelled by an air blast on metal, masonry, concrete, etc., to remove dirt, rust, or paint, or to decorate the surface with a rough texture.

**sash** – a frame that encloses a window's glass surface.

**sheathing** – the covering (usually wood boards, plywood, or composite boards) placed over exterior studding or rafters of a building; provides a base for the application of wall or roof cladding.

**shingle** – a roofing unit of wood, asphaltic material, slate, tile, concrete, asbestos cement, or other material cut to stock lengths, widths, and thickness; used as an exterior covering on sloping roofs and side walls; applied in an overlapping fashion.

**side light** – a framed area of fixed glass at the side of a door or window.

**sill** – the lowest horizontal member at the bottom of a wood framed wall into which posts and studs are tenoned. It also refers to the lowest horizontal member in a frame or opening for a window or door.

**skylight** – in a roof, an opening which is glazed with a transparent or translucent material; used to admit diffused light to the space below.

**soffit** – the exposed undersurface of any overhead component of a building, such as an arch, balcony, beam, cornice, lintel, or vault.

**spacer bar** – a metal or plastic element used to separate layers of architectural glass

**splash block** – a small masonry block laid on the ground below a downspout to carry roof drainage away from a building and to prevent soil erosion.

**springer** – the lowest stone on each side of an arch.

**stile** – one of the upright structural members of a frame, as at the outer edge of a door or a window sash.

**stucco** – an exterior wall covering made of plaster applied over wood or metal lath. **terra-cotta** – hard, unglazed fired clay; used for ornamental work and roof and floor tile.

**tongue and groove flooring** - wood flooring boards joined by the insertion of the tongue of one board into the corresponding groove of the adjacent board

**transom** – a glazed area or window located above a doorway or other opening

**valley** – the trough or gutter formed by the intersection of two inclined planes of a roof.

**voussoir** – a wedge-shaped stone used in the construction of an arch.

**waterfall awning** – rigid curved metal framework with a stretched awning cover.

**window hood** – a projected architectural element over a window opening; also called a hood mold or label.



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