# **Design Guidelines**



Town of Morristown, New Jersey

### **Design Guidelines**



A Handbook for the Preservation and Improvement of Morristown's Historic Properties

Funded in part by



The Geraldine R. Dodge Foundation

This manual is intended to provide generalized historical, architectural, and preservation guidelines for the community.

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The architecture of Morristown has evolved over nearly three centuries, since settlers first came to this area around the bend of the Whippany River in 1715. These buildings illustrate the development of Morristown from a small hamlet to a town. The wealth of history revealed in Morristown's architecture should be preserved. Familiar buildings, within the traditional commercial district and residential neighborhoods, create a continuity of place for the inhabitants of that town as well as frequent visitors. Morristown's community identity is expressed in its buildings.

Preservation of a community's architectural heritage, therefore, is a preservation of its identity. In addition, preservation provides tangible benefits. Rejuvenating downtown areas brings economic viability back to the towns. When the commercial centers are made attractive and easy to navigate without vacant buildings or lots, they become more inviting to community members for shopping, eating, and other activities. Preserving the character of residential neighborhoods enhances the overall appeal of a community and makes it more attractive to people investing in real estate. Rehabilitation of existing buildings can often be less expensive than new construction, while creating more jobs in the community. Rehabilitation instead of demolition also has the environmental benefit of the reduction of waste in landfills.





The objectives of this handbook are:

- To identify and define the historic environment that exists today in Morristown.
- To identify the scope for Conservation and Sustainable Development in Morristown.
- To propose design guidelines for control over changes to components of the historic environment.
- \* To encourage compatible new construction.
- To assist property owners and residents throughout Morristown in improving and maintaining the exteriors of their buildings.

The first section is a historical overview of the development of architecture and its stylistic influences to provide a basic understanding of the historic built environment. The next section discusses the possibilities of sustainable development of the built environment. The rehabilitation design guidelines that follow suggest design criteria for replacement of architectural elements and new construction, emphasizing the importance of contextual design and sustainable development. Design guidelines are already used in historic districts around the state and country to promote preservation of the neighborhood's character. The guidelines assist owners and architects to make appropriate design decisions. They can be used to guide new construction within an existing setting, guide alterations to existing facades, and guide owners in making minor repairs and doing regular maintenance on their buildings. Design guidelines have made a significant contribution to the preservation of New Jersey's residential and commercial historic resources; the purpose of these model guidelines is to extend that success to Morristown's most vulnerable historic resources.

The last section is a sample maintenance program to provide a strategy for preservation of existing buildings of any age or use. This cyclical program presents the methodology for identifying and addressing maintenance issues before they become major repairs.

Appended to this document are three sources of additional information. A glossary of architectural terms defines common building elements and stylistic terms to assist in understanding the features of facades found throughout Morristown. A listing of state, regional, and national organizations provides contacts for further assistance. Finally, a research bibliography lists printed material and repositories available to assist building owners and users with further research at the local, state and national levels.





From www.morristowns.com

### Introduction

Welcome to Historic Morristown! This community's proud architectural heritage defines its character, for the residents and for the many visitors who have earned the town a designation of Distinctive Destination.

Preserving historic buildings makes sense in so many ways. Familiar buildings create a continuity of place, a sense of identity that supports the entire life of the community, in residential neighborhoods and in the traditional downtown. A rejuvenated business district brings back economic vitality. Respectful renovation maintains established property values and attracts real estate investment. Rehabilitation of existing buildings often costs less than new construction, and creates jobs for local workers. Reuse rather than demolition reduces waste in landfills, a measurable environmental benefit.

This handbook is a guide for Morristown renovators. Whether the project is a residential addition, a refurbished storefront, or new construction in an existing area of historic buildings, the principles here will help to design appropriate work.

One section describes the growth of Morristown's settlement over the decades, and correlates the differences among building styles found in various parts of town with historic periods of development. Another section names and defines formal architectural styles, to help users match what they see locally with architectural trends nation-wide. The core of these guidelines explains the principles of appropriate treatment for historic buildings, in accordance with the Secretary of the Interior's Standards, a document widely used by professionals in the preservation field. The Standards are given verbatim in their own section of this handbook. There is a recommended maintenance program, a glossary of technical architectural terms, a list of organizations that can provide advice, and a bibliography of source material.



One innovative feature of these guidelines is a section covering the subject of "green buildings," an important and interesting approach to construction that world citizens would be well advised to follow. Green buildings are environmentally sound in their creation and their continued use. Morristown should be a leader in this field.

Everyone can use and learn from these guidelines. Property owners may see them as a planning tool. The town historic preservation commission and the review boards will depend on them to clarify their discussion with applicants. They may inspire other towns to develop their own handbooks.

In adopting these guidelines, Morristown joins many, many historic districts around the state and the country that have followed the preservation route to revival. Guidelines are exactly that: an advisory guide to provide help and in the complex process of stewardship from which the whole community gains such great reward.



## The Historical Evolution of Morristown's Architecture

The authors wish to acknowledge the invaluable assistance of Marion O. Harris in the development of this section.

As a community grows in time, living through events vertically layer upon layer, its landmarks grow side by side, intermixed horizontally along the street grid. Morristown's architectural development reflects historic patterns of land use. Originally, there were large farms, but also many small owned or rented parcels on which very modest houses were built. As stability grew, properties were combined into increasingly larger parcels, either for the more prosperous farmers or for wealthy visitors who set up summer quarters. It is interesting to follow the town's growth along the boundaries of these holdings, as each estate was subdivided into more intense uses.

#### **Revolutionary Period and Before**

Morristown's heritage has a number of layers. It begins after the earliest survey in 1715, not on the Green but more likely in a lone settlement down on the Whippany River, by its old alignment in the area of the present Center Street. As the small settlement added sites, it came to be called West Hanover. There is almost no architectural information about this early period. However, it is known that when the First Presbyterian Church called its first pastor in 1742, he listed 102 fully recognized members. The first deed on record is dated 1769. Munsell's county history says that about 250 people were here, but we have none of their buildings, and almost none from the later 18th century. There is a Revolutionary area map that shows existing roads: Mt. Kemble Avenue ("the road to baskingridge"), the road to Mendham (now Washington Street), Speedwell Avenue (then Bridge Street, leading across a stream at





the top of Spring Street toward Morris Plains), Morris Street. There are a few archaeological sites: an encampment on the Mendham road; the disputed site of the first courthouse, at the northwest corner of the Green; perhaps some remnants of that first mill on the Whippany River, if they can be located. Eighteenth-century buildings are scant: the oldest part of Macculloch Hall; the Schuyler Hamilton house, not even on its original foundation; the Jacob Ford mansion; the Lewis Condict house (now the Women's Club); the Timothy Mills house; the Moses Estes house, now at Historic Speedwell. The Ford mansion is a distinguished example of Georgian style; the Estes house is its vernacular cousin. Additions to Macculloch Hall, which are now historic themselves, have incorporated the original little house and obscured its dimensions. Twentieth-century Colonial Revival embellishments overlay the early plainness of the Lewis Condict and Schuyler Hamilton houses.



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#### **Federal Period**

When the country began to move on from the Revolution, Federal-style architecture was dominant. Examples from this period — roughly between 1790 and 1810 - are scarce in Morristown, too. Apparently there was a post-war center of development along South Street, at the intersection with Elm Street. A few of these houses, some changed over the intervening century, still stand, and some have been lost only recently. The Canfield house, 5 Maple Avenue, is said to have been built in about 1800 and used as a manse for the Methodist Church; its portico and bay window are later. Number 13 James Street is Federal period; so, probably, was the house demolished on the southeast corner of South Street and Madison Street. Perhaps there is a Federal house under the Embassy Liquor store. On a grander scale, the Morristown Club on Elm Street (before 19th-century alterations), is one of this group, as is the Pereaux building on South Street. No. 83 South Street, the former Book Shop, may have had a Federal façade; it is extensively altered, and the date of 1765 on its gable is in question. The present Woman's Club, at 51 South Street, was built by Dr. Lewis Condict in 1797. It style was originally Federal; the Colonial Revival front entrance was created in the 1920s, and a very large auditorium has been added at the rear. The central section of Macculloch Hall was built in about 1810. The L'Hommedieu-Gwinnup house, formerly at 95 Spring Street but moved in 1969 from the urban renewal site to Historic Speedwell, has a Georgian plan and a gambrel roof. It is thought to have been built in the 1820s. The Ford Cottage, also at Historic Speedwell but formerly on Howell Place where Route 287 now passes, is a simple vernacular prototype of the East Jersey cottage, with a roof that slopes to the rear in the saltbox manner. The original date is believed to be in the early 1800s, though the porch came later, and the front facade may have been changed.







#### **Greek Revival**

The subsequent architectural period, Greek Revival (1810-1840), had minimal effect in New Jersey. Morristown has few of the outstanding pillared porches and porticoed temples that distinguish so much of upstate New York. Morristown has only the Kellogg Club, which was moved back from Macculloch Avenue at the end of the 19th century to make room for development in its front yard. The Greek Revival influence shows for many years after the style was no longer fashionable, in the modest houses that line Washington Street, gable ends to the street, modest returns to finish off their eaves. These houses can be found in all parts of the town developed before the 20th century, for example, on the side streets off Sussex Avenue and in the area of James Street. They were built right up to the turn of the century, often with



small architectural details added to be fashionable in decades after they were built. At the same time, there is the widespread East Jersey cottage, often with a half-story at the top, along Washington Street and lower James Street and on the southern block of Madison Street. The facade, usually three bays wide, has a door located asymmetrically in either bay #1 or #3. The house is often built into a bank, so that there is a half-basement under the front entrance, which is approached by a flight of steps that may cross in front of the house. There may be a full front porch, or an abbreviated entranceway. The style comes in two-bay varieties, and with a full two or even two-and-a half stories. (Peter Wacker credits the name, "East Jersey Cottage," to T. J. Wertenbaker.) It is difficult to date these commonplace little houses, which did not change to follow other design trends.





#### "Victorian" Styles

In the second half of the 19th century, Morristown boomed. Iron had been the industrial engine of northwestern New Jersey since the late 1600s. Now commercial railroads replaced the short-lived Morris Canal as an efficient way to get the ore to market on the sea coast, and the county seat became a financial center for the industry. At the same time, passenger cars used the tracks to bring sweltering New Yorkers out for a summer of salubrious air and social high jinks. The seasonal houses were fairly modest at first, consisting largely of standard plan book Queen Annes, with their asymmetrical massing, cross gables, and expansive porches. Traits of other contemporary styles were often added. Pure Italianate cubes, with flat roofs and brackets under the eaves (for example, the Mahlon Pitney house at 43 Maple Avenue) are rare in Morristown, but the brackets were a portable concept and appear on other basic designs. Mansard-roofed Second Empires stand on Maple Avenue, Macculloch Avenue, and Franklin Place. Carpenter Gothic, or stick-style, ornament may be seen at the corner of Miller Road and Maple Avenue, and at 10 Franklin Place, although Morristown has no Gothic beauty like "The Willows" at Fosterfields in Morris Township. Extreme High Victorian, if it ever existed, does not appear in Morristown, which chose early to sweep away the Victorian cobwebs and turn to Colonial Revival "simplicity."



#### **Colonial Revival**

The reactive Colonial Revival style is characterized by its palette of light colors — white, cream, yellow, or grey bodies with usually white trim — and chunky renderings of classical detail. Columns are muscular, window groupings may be Palladian, pediments often overpower the doorways they surmount. No more relaxed wraparound porches; now there were tightly curved entrance steps seeming to lead to a Greek temple, while glassed-in sun parlors brought the outdoors inside. Interest in health and cleanliness produced the spartan sleeping porches as bedroom appurtenances, often nearly unfurnished but wide open to the bracing fresh air.



#### Gilded Age

This Morristown air, and the railroad that polluted it, brought visitors from the city, whose summer houses lent ever-increasing grandeur to the Morristown streetscape. Morris Avenue, where Morristown Memorial Hospital now stands, was called Millionaire's Mile. But the expense of supporting those true mansions, together with an ill-conceived zoning battle, brought most of them low. Today there is only the stunning photograph collection in the library's local history section to celebrate their former existence. The two houses now sharing the address 1 Madison Avenue date from a slightly earlier period, and the Thebaud house, at the corner of Turtle Road (now a CareOne nursing home) are the sad parentheses enclosing a "Mile" of glass-box office buildings.

Less imposing development took place as well. The Olyphant/Jardine neighborhood and Altamont Court were opened at about the turn of the century, and continued to grow for another twenty years.





#### **Between the Wars**

Starting in about 1910, new building materials and techniques, as well as a simpler style of living, came together in a trend toward architectural plainness. The comfortable four-square - four rooms in box formation on each of two floors, with a central hall and hip roof, where a dormer might be found on each hip - was built in Morristown at the latest addresses, in the neighborhood around Colonial Road, on the high side of Western Avenue, and on a few undeveloped lots off Evergreen Avenue (now Martin Luther King Avenue). These houses reflected both the new Prairie style and the influence of Gustav Stickley's Craftsman philosophy. Stickley himself, of course, established Craftsman Farms near Morris Plains hoping to provide training for his disciples. He believed in using local materials like stone and wood, and in building designs that harmonized with the natural environment.

Rusticated concrete blocks were widely used, in foundations and sometimes as cladding for an entire building. This was also the period of bungalows, which were available pre-cut in kits from companies like Radford, and then from Sears, Roebuck, which continued to offer kit houses until World War II. Some can be found in the area of Mills Street.

In the 1920s and 30s, suburban developments throughout New Jersey were built in derivative styles with nostalgic names like Dutch Colonial, center hall colonial, Tudor, and "picturesque." The Morristown neighborhood bounded by Washington Avenue and Morris Avenue was built at this time, on what were almost the last remaining estates to be subdivided. This area retains a very high degree of architectural integrity, and deserves to be nominated for a State and National Register district of its own.



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#### 1950 and Later

During World War II, construction was impossible. Immediately afterward, the pent-up demand, and the housing needs of new families established by returning veterans, combined to create a building boom which has, in essence, never stopped. Economies of scale appeared in neighborhoods like the Levittowns, where a very few housing designs alternated on block after block.

In Morristown, the Hillairy Avenue development was a first response to the urgent cry for shelter. The little Continental/Sand Hill area followed. Some of the few remaining lots in the Washington Avenue neighborhood and around Colonial Road were snapped up. By then, balloon framing was no longer used. Standard lumber sizes had undergone two down-grades, and under pressure from novice buyers, green wood was used in many houses. Increasingly, moldings were pre-cut. Old-growth trees were no longer easy to find. Incautious builders installed aluminum wiring, often



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leading to later disaster. Careful craftsmen were hard to find, and considered too expensive to hire. The architect-designed, one-of-a kind house became a rarity.

1950s innovative modernistic "chicken coops" on Erskine Drive showed the courage of good design; well maintained, they too are on the way to Register listing. In the 1960s, ranchers and split-levels began to appear in Morristown, predominantly in the Dogwood Road area, but also scattered near Colonial Road.

Finally, at the end of James Street, on the last unused land not formally protected as open space, townhouses of the 1970s and 80s appeared. Another site for them was found off Turtle Road, behind the Gilded Age properties where, by then, the mansions had been replaced by glass-box office buildings. Located discreetly in enclaves separated from the road, these developments turned their backs on the town's streetscape pattern and successfully downplayed their contrasting lifestyle.







VR Acorn Hall THE S Speedwell Village 1 Hours Pocahontas 12 (FF Schuyler Hamilton House Lackawanna R. E. Morris Estey Hause 0 000000 à Spring St. -Presbyterian Church Yard Timothy Mills Hause South St. The Green Washington S Independent Hose Co. Vail Monument Court House Revere House Mendham Roa Mac Culloch Ave Thomas Nast Ann St. The Grove The Kedge 15 MacCyllock Hall C.B Gillespies Fort Nonsen Read A De Hospital Picnic Area Tempe. Wick House Bettin's Oak rei Tempe Wick Rd. ellemill Harry 1969

#### **Multifamily Residences**

For centuries, people who lived together under one roof were not concerned about the details of relationship. They were an extended family, with servants and hangers-on, and lucky to be protected. As interest grew in the question of individual rights - and certainly with the unprecedented ethnic and linguistic mix in this country – the nuclear family became a more distinct unit. This separation was reflected in their residential arrangements. The oldest Morristown multifamily houses seem to have been paired East Jersey cottages, mirror images built next to each other with a party wall. They date to the second half of the 19th century. A few remain, at the extreme ends of Maple Avenue, at the bottom of Prospect Street, and in the area off Mills Street. As opposed to ordinary two-family houses, which are often hard to distinguish at first glance, these have the aura of factory housing. But there were no manufacturing operations nearby, and the buildings seem to have been independently owned.

As Speedwell Avenue made the transition from a residential street to the site of small stores run by successive groups of immigrants, low-rise buildings were created that included both storefronts and housing. A noticeable architectural form, repeated at least 14 times on the street, is the 19th-century Queen Anne house with a 20th-century storefront replacing its porch and extending to the sidewalk. These hybrids can also be found on Morris Street and South Street, in the vicinity of Elm Street. At the same time, new one-, twoor three-story structures contained retail stores at ground level, with apartments above.

Beginning in the 1920s, entire apartment buildings attracted people who no longer found home maintenance desirable; these buildings provided a density of land use and a rate of return that rewarded both public officials and property owners. Morristown apartment buildings ranged in size and glamour from the late 19th-century five-story yellow brick structure at the corner of Speedwell Avenue and Mills Street to the 1920s dignified brick "Ambassador" at the corner of South and James Streets. There is also 185 Speedwell Avenue, and 86 South Street, at the corner of Pine Street, with three stories plus retail shops at street level. It is interesting to note that, after decades of believing that residential uses are "tainted" by the presence of commerce and should be zoned separately, Americans are now returning enthusiastically to the idea that the two uses are complementary and mutually beneficial.









#### **Commercial Buildings**

In the beginning there were barns. Each householder was his own entrepreneur, raising and storing what his family needed, trading the surplus with others or in the town center on market day. A few barns persist in Morristown to this day, but they are smaller, and those that function at all have been changed to other uses, such as 19th-century carriage houses, garages, or gardening sheds. Small barns may be found on Phoenix Avenue and off Martin Luther King Avenue, and quite grand carriage houses still stand in the Miller Road area. Although accessory buildings are frowned upon, some have been subdivided off and modified into dwelling places.

Morristown's industrial zenith is long gone. The Speedwell Iron Works, on the site of what is now Historic Speedwell, flourished from 1815, then fell into decline, and burned in 1908; thus ending the dream of an industrial hub in the town. In the area where Martin Luther King crosses the Whippany River, there was a group of business operations including gas production, ice cutting, and coal delivery. These became superfluous after World War I, and few remains of their buildings can be seen.

Meanwhile, Morristown was growing as a commercial service center. The first structure built specifically for offices is believed to be 10-12 Washington Street, built in 1872, now incorporated into the headquarters of the Schenk Price & King law firm, which has also moved into the two buildings just to the south, modernizing the first floor storefronts. Notable is the Glanville Blacksmith Shop (now Wells Rug) at 47 Bank Street. Built in 1901, it is the last survivor of the extensive livery-related industry in town, and is listed individually on the National Register. Another commercial building of uncertain provenance is the successfully restored 2 Cattano Avenue, with its original storefronts and respectfully-treated brickwork

In fact, given the presence of the Prudden brick works just down the Basking Ridge road, it is surprising that bricks were not more widely used for early construction in Morristown. Perhaps the soft quality of the product explains it, or perhaps it was the expense, but there seem to have been few 19th-century brick houses in town. 126 South Street is one, as is the Morristown Club at 27 Elm Street; these were impressive houses in one of the best neighborhoods when they were built.

Two remaining 19th-century brick mill buildings are at 8 Budd Street, with jarring replacement door and windows, and behind the Blockbuster 1920s storefront at 117 Speedwell Avenue. The Prudden brick works closed around the end of the century, and modern brick from elsewhere came into use. On Speedwell Avenue and Morris Street, when houses were modified with storefronts, they were of brick. New low-rise shops along South Street, built in the 1920s, were brick. Another 1920s commercial form is the small brick outbuilding that may be found in the back yard of another building. Some of these, like the one behind 10 Park Place, are derelict; others, for instance at 10 DeHart Street and 142 Morris Street, have been rehabilitated and are in good use. An outstanding pair of commercial buildings at 11 and 13 South Street, apparently were built to provide homes for fraternal organizations upstairs with retail shops below. The 1880s ornate details remain above street level, although the ground floors have been inappropriately modernized. In fact, except for one admirable restoration, complete with the original prism glass, at 44 Morris Street, most Morristown storefronts have been changed without consideration of the building's historic character. Sometimes the whole façade has

been covered, sometimes just the first story is redesigned. Often it would not take much to restore the original integrity.

In particular, the area around the Green no longer retains any architectural consistency at all. The most interesting building is 10 Park Place, a 20th-century structure with modest Collegiate Gothic detailing, but even that was recently given a modern glass addition. The Green itself, with an underlying serene 1908 design by local landscape architect John Brinley, is under constant pressure from new additions that send conflicting historic messages.

Morristown came late to the urban renewal process. Nationwide, other places like Manhattan, Brooklyn, Hartford, CT., and St. Louis, MO, had discovered the destruction that followed the redevelopment approach, which bulldozed human-scale historic buildings and modest, functioning neighborhoods, only to replace them with impersonal, poorly-designed behemoths. Urban renewal had run its course elsewhere by the early 1970s, when Headquarters Plaza was built on Speedwell Avenue. This project had the immediate effect of pricing the entire roster of small shops around the Green out of existence and walling-off the Second Ward.



#### **Public Buildings**

Morristown's most significant existing public building is the 1827 brick courthouse, with 19th- and 20th-century additions, including a 1980s annex across Court Street. Earlier versions stood on the Green, but only incomplete archaeology remains of them. Earlier churches, too, were located around the Green and along its feeder roads, but between 1872 and 1893 their current replacements were built. The oldest of this group is the Gothic brick Church of the Assumption on Maple Avenue, built in 1872 to serve the neighborhood around Madison Street, which since the 1840s had been home to the Irish servants of the nearby Macculloch and Maple Avenue families. The five other churches of this period, serving Presbyterian, Episcopal, and Baptist congregations, were built in either Gothic or Romanesque styles. Several have had severe fires, but those have been rebuilt. In 1917, as the result of a





schism, a second Episcopal church was built on South Street, and in the same year a library building, across Miller Road from St. Peter's Episcopal church and matching it in material and style, was donated. The library has had two sympathetic additions within the last 25 years.

The Vail Mansion, 100 South Street, has been a public building for most of its life, although its original owner, Theodore Vail, the first president of AT&T, built it in 1916-1918 to be a private museum. Vail never lived there, and his family sold it to the Town of Morristown, which used it as a town hall for about 50 years. Now it is returning to private ownership, with a very large new addition to the rear. The current town hall, at 200 South Street, was first a commercial building. Municipal offices are on the first 2½ floors, with tenants in the rest of the space. The style is 1950s Georgian Revival.

Two small 19th-century volunteer firehouses remain. The brick Washington Company house on Market Street may date to 1865, although the engine doors have been inappropriately replaced. Its company was distinguished by the membership of cartoonist Thomas Nast. The wooden First Ward Hose Company house on Morris Street dates to1899.

Schools in Morristown get hard use, and have been frequently replaced. The earliest, the Morris Academy, opened in 1792. It was privately subscribed, as have been a number of town schools to this day, although the meaning of this kind of support has changed. The oldest remaining public school building is on Liberty Street. Built in 1896 in a stripped-down form of Colonial Revival style that drew comment in its own time, it is now used as a maintenance depot by the school district. In the 1970s, a ground-breaking merger took place between the districts of Morristown and Morris Township. Ownership of the school buildings was transferred to the new board, with the proviso that the ones in town be returned to municipal ownership if they were no longer needed for school purposes. A small Classical Revival administration building at 40 Mills Street, built in 1907, was indeed superseded, and has been sold for private residential and office use. There

are, within town borders, just four buildings in active use as schools, although the district includes several more in the Township. The original section of the high school, on Early Street at Atno Avenue, was built in 1918 of light-colored brick in Classical Revival style. It has since been expanded several times. The Alexander Hamilton School on Mills Street is a Colonial Revival building, as was the George Washington School on Morris Street, now replaced by townhouses. The Sussex Avenue School, and Thomas Jefferson, on James Street, are modern buildings still in use.



The 1917 brick post office, on Morris Street just off the Green, is a modest Classical Revival structure, well maintained.

In 1913, the DL&W railroad station was built on Morris Street, replacing an 1881 building which was itself a replacement on the same site. Until about 1848 this rail line had run along Maple Avenue; its relocation opened Maple Avenue for eventual residential development. The present station, with its tan brick walls, tile roof, and landscaped grounds, enjoys the protection of the strong New Jersey historic preservation law and of New Jersey Transit's respect for that law even as the building is adapted for handicap access.

The Colonial Revival Community Theatre, 100 South Street, was built in 1937 as a standard movie theater type, then fell into disuse. A local group has successfully restored it, and uses it for various stage performances.



#### Architectural History Today

This section provides an overview of Morristown's architectural development, but is not all inclusive. There are certainly many buildings in Morristown whose significance have yet to be recognized, and the examples described here only serve to indicate the breadth of the subject. People who are studying the history of their houses, or who are hoping to make sympathetic renovations, will find it helpful to know where their property fits in the grand march of architectural progress.

The town recognizes the value of its historic inventory, as expressed in a separate element of the master plan. There is an advisory historic preservation commission, to review the design of applications to the official town boards, and to provide assistance to anyone who has preservation questions. Please take advantage of the Commission's services and help maintain Morristown as a Distinctive Destination town.

The changing tastes in architectural styles prevalent in New Jersey and their place in the buildings of Morristown over the past two hundred years are described in the next section. Each architectural style was expressed in residential, commercial, public and religious buildings through the use of materials, varying proportions and massing, and design motifs. The styles also reflected technological advances of the period. For example, the size and number of window panes changed throughout the nineteenth century in response to the glass-making industry's growing ability to produce and ship larger panes of glass. In the earliest architectural styles, you will find multiple panes of glass-as many as twenty-four per window in Georgian architecture and twelve commonly in Federal. By the Greek Revival period, an eight-pane configuration (four-over-four) was typical, and during the Victorian era the glass size systematically increased to the single-light plate glass panes that now characterize most storefront display windows.

Several factors interact to produce a sensitive rehabilitation:

- a thorough knowledge of the building's evolution;
- an understanding of the neighborhood and its development; and,
- an awareness of the architectural styles flourishing during its history.









## Predominant Architectural Styles and their Defining Characteristics

(These style descriptions are taken, in part, from John J.-G. Blumenson's *Identifying American Architecture*.)

The architectural styles discussed here do not represent the full national spectrum, but rather those that are representative of the buildings of Morristown. Except for a few buildings still standing from the late eighteenth century, the majority of the structures in Morristown date to the nineteenth and twentieth centuries.







#### 1715 - Revolutionary War

The first structures in Morristown were built around 1715. None of these early buildings survive, but they were most likely simple, vernacular dwellings. The building forms of the 17th century found in the earliest settled areas of New Jersey continued to be used into

#### Colonial

House plans were simple one or two room layouts, characterized by large, centrally-located chimneys. This allowed the heat from the chimney to remain inside the building and provide additional warmth. The roofs were generally gabled and covered in wooden shingles. The eaves did not project far from the walls. Readily available wood from local forests was used for structural components as well as for roofing and siding. Fieldstones and locally quarried stones were used for irregular rubble masonry foundations. The exteriors of the buildings were clad in clapboards, and the edges were trimmed with corner boards. It was understood that non-combustible materials should be used for chimneys, so brick, manufactured close to the site, was typical. Glass was not available in large sizes at this time, so windows were small in size with small panes. The Timothy Mills House, located at 27 Mills Street, built circa 1740, is the oldest building in Morristown still on its original foundation.

Buildings were constructed during this time in several sub-styles, such as Dutch Colonial, French Colonial, New England Colonial, and Spanish Colonial. As the 18th century wore on, the town became more prosperous. The influx of additional settlers from England throughout New Jersey and increased connectivity of Morristown to other towns in the vicinity brought more of the fashionable building styles that were popular there. the 18th century in small rural communities like Morristown, as they were not yet influenced by the influx of new ideas and fashions from Europeans that settled first in the bigger cities.









#### Georgian

Georgian buildings are more formally arranged than their Colonial predecessors. Symmetry and classical details such as urns on pedestals, floral motifs and fluted columns are employed on the exterior, especially on the primary facade. Typically in high-style Georgian buildings, the exterior has a coursed ashlar finish (or a simulated ashlar finish of scored stucco) with heavy quoins terminating the corners. But since Morristown was still largely rural, it was not influenced as much by high-style Georgian architecture, and its Georgian buildings continued with the traditional clapboard siding on the exterior. A heavy modillioned cornice is generally used at the eaves. The primary facade often contains a pedimented projecting pavilion with large pilasters or columns and a Palladian or Venetian window. Windows are more commonly of the single or double-hung type with 6 to 18 lights per sash rather than the diamond-pane casement type used when glass was rarer and more expensive. Above the windows there is often found a flat arch with pronounced keystone. The doors are generally paneled. The front door may have a transom light, side lights, or both, flanked by pilasters and/or columns. Often pedimented dormers are included to bring light to the attic spaces. The typical house plans also became more elaborate, with separation of family areas, dining rooms, bedrooms, and cooking areas.

Many vernacular buildings during the 18th century combined a few elements of the Georgian style with general characteristics of the Colonial period. Some typical examples of this period found today in Morristown include the Schuyler Hamilton House (Dr. Jabez Campfield house) at 5 Olyphant Place, built circa 1760, and the Ford Mansion (Washington's Headquarters) built in 1772-1774.



#### 1780s - 1820

After the Revolutionary War, there was not a complete break with English style, as might be expected. The style of Robert Adam, based on that of Palladio, was adopted, but in the new United States it was termed Federal, reflecting its place as the style of the new country. Although the iron industry brought prosperity to Morristown after the Revolution, the town still

#### Federal

This style is more austere on the exterior than the previous Georgian style. The general feeling is much lighter, with larger areas of glass, thin muntins, more attenuated columns, and thinner corner boards. The facades are smoother and roofs low pitched. Geometric forms were popular, as they were in England. Polygonal or bowed bays mirrored the interior geometric forms on the outside. Entrances were accented with elliptical fan lights and flanking slender side lights. Tripartite windows were often framed in recessed arches. Although the general look was more austere, swags and garlands often adorned the frieze below the cornice.

Some typical examples of this period found today in Morristown include Dr. Lewis Condict's house on South Street, built in 1797, the Wood farm house also on South Street built during the late 18th century, the Canfield house at 5 Maple Avenue built in 1800, Macculloch Hall at 45 Macculloch Avenue built in 1806, and the Sansay house at 17 Dehart Street built in 1807. Macculloch Hall is believed to be the earliest building in Morristown constructed with a brick façade. The most important building in this style in Morristown is the Morris County Courthouse on Washington Street, although it is an example from the late Federal period dating to circa 1827. The bricks are said to have been made at the Prudden brick works, south of Morristown on Route 202 (actually, now in the dividing island of Route 287). remained a largely rural area and the local people led a modest existence. High-style Federal style architecture generally required a relatively large investment, so that the use of this style remained a privilege of the affluent few. This style made an appearance in Morristown through some commercial buildings and even fewer residential buildings.









#### 1820 - Civil War

In the early 19th century, the cities of Herculaneum and Pompeii were discovered. This began a fascination with Greek and, subsequently, Roman architecture and art. This fascination was expressed through the Greek Revival and Italianate styles. The Gothic Revival style highlighted a backlash against that trend. During this

#### **Greek Revival**

This style is an adaptation of the classic Greek temple front using details from either the Doric, Ionic, or Corinthian order. The columns often support a full entablature and a low pitch pediment that is commonly associated with this style. (However, many vernacular Greek Revival houses were built with only a street front gable-end or minimal returns to convey the style. These simplified versions were still built into the 1880s; many remain on Washington Street in Morristown.) Roofs are low-pitch gables or hips. A rectangular transom over the door was popular, as were pilasters and side lights flanking the door. Shouldered architrave trim was widely used for doors and windows. Window muntins were thin like those used during the Federal period, but their interior shape was more pointed, with a profile similar to the bottom of an acorn.

The house built by James Colles at 25 Colles Avenue (now known as the Kellogg Club) was built in this style. The First National Iron Bank on South Street built in 1855 is a fine example of a Greek Revival style building in commercial use. time, development in Morristown was taking place mostly in between South and Morris Streets, and to the south of South Street. A number of churches were built in Morristown during this time but most of the original buildings were destroyed by fires and replaced by newer buildings often in the same style as the original buildings.







#### **Gothic Revival**

Widely used for many different building types, this style is characterized by steeply pitched roofs, wall dormers, polygonal chimney pots, hood molds over the windows, and curvilinear "gingerbread" trim along the eaves and gable edges. The standard for windows in this style varies, but the pointed arch is often characteristic.

Vernacular versions of this style were commonly used for residences such as the Admiral Rodgers house at 40 Macculloch Avenue. The Church of the Redeemer on South Street, built in 1917, is a Gothic Revival style replacement of an original Gothic Revival building.



#### Italianate

Buildings of this style are usually rectangular with two or three-stories. The hip roof is generally low-pitched with a cupola on top. The wide eaves are usually supported by oversized brackets. As with the brackets, other details such as the string courses and rusticated quoins are very pronounced. This style can also have a central one-bay porch or long front porches. In urban and commercial buildings, common characteristics of the Italianate style include tall, narrow, four-over-four window sash, segmental-arched window heads, elaborate window and door hoods, and cornices with oversize and sometimes paired brackets.

Some of the homes in Morristown designed in this style were Acorn Hall, built in 1853 — the home of the Morris County Historical Society since the 1970s and the dark-stuccoed Mahlon Pitney house at 43 Maple Street, built between 1860 and 1864. The popularity of the Italianate style continued during the years after the Civil War. Many large homes of Morris County's new wealthy settlers were built in the Italianate style.





#### 1865 - 1880

After the Civil War, the trend toward multiple architectural styles proliferated. This trend was influenced by the rapidly expanding spheres of philosophy that flourished in the new industrial age. The increased wealth enabled many to afford grander homes in a higher style than the previous century. The area around Madison Avenue to the east of Morristown, which had largely remained undeveloped until now, was slowly becoming the most sought-after neighborhood, where the rich could build their mansions on large plots of land. These high-style mansions were symbols of wealth and affluence. On the other hand, the land around Speedwell Avenue was subdivided into small plots for modest single family homes to accommodate the growing middle-class population. These homes were mostly built in a basic Queen Anne style, sometimes derived from a plan book and usually without an architect. By this time, many people living in Morristown worked in New York, or sometimes in Newark. Easy transportation and increased communication enabled the big-city styles to influence smaller towns like Morristown faster than ever before. It was also during this time that many of the street-front row houses with retail at the first floor level were built. These mixed-use buildings are still found in some parts of the commercial district of the town, such as on Speedwell Avenue and Washington Street.



#### **Second Empire**

Similar to the Italianate style, the Second Empire style building is usually a two- or three-story symmetrical square block. A projecting central pavilion often extends above the rest of the building. The mansard roof of this style is its distinguishing feature. This roof is often covered with multi-colored slates. This style is characterized by deep, dramatic moldings and details with different textures and colored materials. The windows are usually arched and pedimented, sometimes in pairs, with similarly dramatic molded surrounds. First floor windows are much taller than the other windows in the building. Entrance doors are often arched and paired, as are the windows. Porches are common.

The Second Empire style is widely used in Morristown buildings, large and small. The Thomas Nast house, built in 1868, retains its Second Empire roof line and dormers. But very extensive Colonial Revival renovations — in particular the introduction of a Palladian window above the front entrance and an elaborate conservatory — have created an eclectic blending of the two styles.






### Victorian Gothic

This style is characterized by polychromatic exterior finishes where materials of different colors and textures are juxtaposed. These materials create decorative bands which highlight corners, arches, and arcades. Other decorative elements include pressed bricks, terra cotta tile, and incised foliated and geometric patterns. The Gothic (pointed arch) windows and doors which typically characterized the Gothic Revival style are used in addition to straight-headed openings. In contrast to the "gingerbread" trim of the Gothic Revival style, the eave trim on Victorian Gothic buildings is massive and strong.

The 1872 Catholic Church of the Assumption on Maple Avenue at the corner of Madison Street (which is today the oldest church building in Morristown), followed by St. Peter's Episcopal church on South Street on the corner of Miller Road, (which was being built for about 24 years during a good part of the later half of the 19th century) were both built in the Victorian Gothic style.





#### Richardsonian Romanesque

The Richardsonian Romanesque style got its name from the Boston architect Henry Hobson Richardson. While this style is generally similar to the Victorian Gothic, architect Richardson set it apart by the use of Spanish and French influences. This style is distinguished by the use of the semi-circular arch, broad roof planes and a rusticated exterior finish. The overall effect depends on mass, volume and scale rather than on ornamentation and decorative detailing. In masonry buildings, the semicircular arches are often supported by short polished stone columns.

One of the church buildings built in this style is the South Street Presbyterian Church, built in 1878. The United Methodist Church on S. Park Place on the Town Green was built in 1870 in a variant of this style, but only the tower and the front gable survive of the original building. (The rest of the building was reconstructed in 1974 in a contemporary style, but the materials, textures and massing are complementary to the original building.)





#### **Stick Style**

This building style is generally asymmetrical in composition and is characterized by "stick work," from which it derives its name. This "stick work" is reminiscent of the half-timbering of Medieval English architecture, but serves a purely decorative purpose here. This style is composed of a picturesque assemblage of steeply pitched gable roofs, cross gables, towers, and pointed dormers. Large verandas and porches are also often incorporated. Contrasting with the decorative pattern of vertical, horizontal, and diagonal "sticks" are oversized structural corner posts, exposed roof rafter ends, purlins, brackets, porch posts, and railings which remain unornamented.



# 1880 - 1900

The height of the Victorian period and the colorful, intricately-detailed styles that characterize it, the years 1880-1900 reflected the tastes and excesses of the ending nineteenth century. Yet "Victorian" is not in



itself a style, but a time period reflecting the reign of Queen Victoria from 1837-1901. The boom in real estate and construction in Morristown continued through this period.

#### Richardsonian Romanesque (continued)

The use of this style continued and became even more popular up to 1900.

Church buildings built during this period include The First Presbyterian Church on the Town Green (built in 1894) and the First Baptist Church (built in 1892).







#### Shingle Style

Buildings of this style are characterized by their use of decorative wood shingles, usually covering the entire building from the roof to the foundation. The eaves of the roof stay close to the building so as to retain the homogeneous look of the shingle cladding. A continuous roof slope may project to provide a covering for porches. This also emphasizes the homogeneity of the exterior, as the porch roofs appear to be part of the whole. Windows in these buildings may feature casement or sash. They tend to be small so as not to distract from the shingles, and are often grouped into bands of two or three, contributing to the horizontality of the style. The ornamentation of a shingle style building varies, sometimes using elements of the emerging Colonial Revival style and sometimes using elements from one or another of the styles that are collectively referred to as "Victorian."

Built in 1880, The Kedge, located on Macculloch Avenue at the corner of Miller Road, is a fine example of the use of this style.











#### Queen Anne Style

Queen Anne style buildings can be identified by their rich decoration, which consists of a variety of forms, textures, materials, and colors. The picturesque nature created by the decoration is heightened by the towers, turrets, tall chimneys, projecting pavilions, porches, bays, and encircling verandas, which are arranged into an asymmetrical composition. Occasionally, colored glass panels are incorporated into the windows to complement the textured wall surfaces. This popular style, in use as early as the 1970s, lends itself well to vernacular construction and may appear as late as 1910, with transitional Colonial Revival embellishment.



# 1900 - World War II

While the early architecture of the twentieth century continued to reflect some of the massing and details of the later styles of the Victorian period, new styles of greater formality and classical influence emerged. In part a reaction to the excess of the previous decades, the new styles represented a dramatic change in architectural expression. These styles overlapped with the emergence of "modern" and eclectic styles of architecture.

In Morristown, the residential areas were beginning to be saturated. The southern and eastern parts of town were almost completely developed. This period saw the construction of many commercial and public buildings in the business district, as Morristown was transforming itself from a rural community into a modern town.



#### **Beaux Arts**

Enriched with an abundance of detail and a variety of stone finishes, Beaux Arts buildings are rather grandiose in their composition. Projecting facades and pavilions that are often found on these buildings can be embellished with over-sized, often paired, columns, enriched moldings, and free-standing statuary. Windows can be ornamented with free-standing columns and balustraded sills with pedimented entablatures on top.

This style was especially popular for the design of important public buildings and financial institutions. Some examples in Morristown include the Morristown Post Office on South Park Place, built 1917, and the Community Theater building on South Street.





#### **Colonial Revival**

The Colonial Revival style grew out of the rebirth of interest in the Colonial period and, in particular, early English and Dutch houses in the original colonies. Influences included the Georgian and Federal styles, as well as post-medieval English and Dutch Colonial prototypes. Elements from these styles were often mixed, but some identifying features include a symmetrical façade with a hipped or gabled roof, an accentuated front door or a porch (just in the entry bay or one- or two-story full-width), and double-hung sash, often with multi-pane glazing and sometimes in pairs.

The influence of the Georgian and Federal styles can be seen on a larger scale in the design of commercial and office buildings such as those Bank Street and Market Street between Macculloch Avenue and the Green, and in many smaller mixed-use buildings in the center of town along Pine Street, Elm Street, etc. Similarly, influences of English and Dutch Colonial styles affected the design or redesign of single family homes in the southern and western portions of the town.















#### **Neo-Classicism & Renaissance Revival**

Neo-classicism, as its name implies, is inspired by the Greek and the Roman architectural orders. Following the example of Greek and Roman temple architecture, this style is characterized by monumental buildings arranged symmetrically on their site and often clad in smooth or polished stone. Details of the buildings tend to be simplified. Thus there are almost never any arches, enriched moldings, or statuary as found in earlier Beaux Arts buildings. The front facade may be highlighted by an over-sized, pedimented portico with a series of colossal pilasters. Windows often have large, single-light sash.

Details on Renaissance Revival buildings include pedimented windows, paired arched doors, quoins and belt courses.

A number of examples of the use of these styles are seen in the commercial buildings along South Street and some even on Morris Street. The Morristown High School on Early Street, and the Morristown train station (built in 1914) were both designed in this style. In addition, the residence of Theodore Vail, known as the Vail Mansion, located off South Street, was also built in this style between 1916 and 1918.











#### Bungalow/Craftsman Style

This style is characterized by the use of gently pitched roof with gable fronts, mostly with a separate lower gable roof over a front porch supported by brick piers. Shingles or bricks are used for the exterior finish in their natural color. Only the trim would be painted. Overall the elevations would have minimal ornamentation. Bungalows were modest structures designed for the modern middle class family. They are rare in Morristown. Some were available as kits from Sears Roebuck. However, the detailing of the Craftsman Style can sometimes be found on other building types such as the American Four-Square house, at right.









# Tudor Revival

The Tudor Revival style in Morristown was used as a status symbol. Some of the typical features include stone or brick masonry for exterior wall cladding; parapeted gables; large, elaborately designed and ornamented chimneys and chimney pots; and semi-circular arched doorways and window openings with heavy quoin-like surrounds.

Classic examples of this style in Morristown include a high-style mansion built off Madison Avenue circa 1890, (today known as Peck School) and a building on Speedwell Avenue and Lakeside Place which is now used as the Planned Parenthood Center.





# 1920 - World War II

While the world was in the turmoil induced by wars and America's Great Depression, architectural expression continued to evolve. Historicism and classical formality

#### Art Deco

Geometry and stylized decoration are the hallmarks of the Art Deco style. Verticality is emphasized by a series of set backs as well as horizontal bands of windows with decorated spandrels. Ornamentation is crisp and of low relief. It is usually found around the door and window openings, on string courses, and along the roof edges or parapet. This ornament is executed either in the same material as the building or in various metals, colored glazed bricks, or mosaic tiles. Windows are generally metal sash or casement with straight heads. Some circular windows or rounded window or door jambs can be found.

An example of this style is the commercial building on the corner of South and Pine Streets. were largely abandoned, and completely new styles emerged.







#### Art Moderne

A streamlined look is created in the Art Moderne style by soft or rounded corners, flat roofs, smooth wall finishes without surface ornamentation, and horizontal bands of windows. Curved window glass that wraps around corners enhances the streamlined effect. Doors are of metal or wood and can be decorated with circular windows, large panels of glass, or patterns with circular and angular outlines. Adding to the machine age look of the style, door and window trim, railings, and balusters are often made of aluminum or stainless steel. Other modern decorative materials such as mirrored panels, concrete panels and, occasionally, metal panels with low relief designs around doorways and windows may be used.

The commercial Reynolds Building on North Park Place shows the influence of this style.



# Post World War II

When construction resumed after World War II, earlier styles with historical influences were discarded and a new direction of modern and simplistic styles was sought. This movement was largely due to the influence of the "International Style," which originated with European architects. In addition, progress in technology and the availability of prefab elements made construction inexpensive and less time consuming. Economizing on cost of construction and maximizing use of space were important factors that influenced the development of architectural styles.

Modern residential architecture took off from the Prairie style, which had begun to surface in the early part of the 20th century, and developed into the modern, ranch, contemporary and split level. In Morristown, however, the influence of this new trend was not very widespread. Only a small tract of land at Erskine Drive and Maxwell Court was developed by a builder in a Californian Ranch design in 1950s and 60s.

A few commercial buildings in the business district in the International Style replaced earlier buildings. But the most dramatic effect of this period in Morristown was apparent in the area surrounding Madison Avenue, where stately mansions of the Victorian era on large plots of land began to disappear, their places taken by sprawling complexes of modern, multi-storied office buildings. This evolution of Morristown's architecture has not abated.





# Urban Conservation and Sustainable Development

This manual proposes the adoption of a conservation and sustainable development strategy to ensure the future economic and social well-being of Morristown. As seen in the preceding narrative, the developmental trends of Morristown, from a tiny rural community into a modern day urban settlement, has resulted in a gradual evolution of the quality and character of the built environment. These trends continue to influence the town, but not necessarily with positive results. Today the community has a choice about how they want the town to develop. Adopting a strategy for sustainable development will significantly improve the quality of new development, as well as adaptive reuse of the existing historic built environment. The extra effort and expense for conserving the historic and natural environment should be regarded as a long-term investment in the future of Morristown.

Paul Lalli, AIA, Past Chair of the New Jersey Chapter of the U. S. Green Building Council, offers the following for achieving Morristown's goal of sustainability:

Morristown has made a commitment to sustainability in the built environment. The new Maple Avenue Office and Parking Garage recently approved and nearing construction will incorporate sustainable or 'green' building strategies that will increase energy and water efficiency, enhance the comfort and performance of occupants, use sustainable materials and minimize the impact on the environment over the many years of operation.

Morristown would like to encourage the practical application of sustainable strategies in all areas of building design, construction and operation.



Storefronts are part of the built environment and may be the first impression one receives of a facility. Incorporating sustainable design principles into the design and maintenance of the storefront will raise the awareness of consumers and pedestrians and support the Morristown mission on sustainability.

Some simple things you can do:

- Specify sustainable materials and products in design and renovation
- Design flexible display space that can change with minimal waste or disturbance Install energy efficient lighting and maximize 'daylighting'
- Use sustainable cleaning materials and maintenance procedures
- Remove environmentally hazardous construction and renovation materials properly

Rejuvenation, preservation and re-use of the existing infrastructure and community assets are all integral parts of sustainability. These strategies figure prominently in the US Green Building Council's **'Leadership in Energy and Environmental Design'** or **'LEED'** Program, which is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. This program outlines strategies for site conditions, water and energy efficiency, sustainable materials, and indoor environmental quality, leading to high performance, 'green' buildings. For more information, property owners can visit www.usgbc.org, or contact the local USGBC NJ Chapter at usgbcnj@comcast.net. Additional information can be found at the U. S. Environmental Protection Agency's Smart Growth web site: http://www.epa.gov/smartgrowth/sgia.htm. Property owners can also refer to *Preservation Brief #3: Conserving Energy in Historic Buildings*, published by the National Park Service for more information on techniques for achieving their goals of energy conservation and sustainability for historic buildings. (Also available online at: http://www.cr.nps.gov/hps/tps/briefs/brief03.htm).





# The Secretary of the Interior's "Standards for the Treatment of Historic Properties, 1995"

- 1. A property will be used as it was historically or be give a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
- 2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
- 3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
- 4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
- Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
- 6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where

possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

- Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
- 8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
- 9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale, and proportion, and massing to protect the integrity of the property and its environment.
- 10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

# The Secretary of the Interior's "Standards for Rehabilitation"

The Secretary of the U.S. Department of the Interior, in response to federal legislation providing financial incentives to stimulate the revitalization of historic communities, developed a series of recommendations for the rehabilitation of older structures. These standards are now commonly used at all governmental levels to determine the appropriateness of proposed work on historic buildings and provide a sound guide for all sensitive rehabilitation.

The Secretary of the Interior's "Standards for the Treatment of Historic Properties, 1995" (Department of Interior Regulations, 36 CFR 67) pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and the interior, related landscape features, and the building's site and environment as well as attached, adjacent, or related new construction. The Standards are customized for various building treatments - Preservation, Rehabilitation, Restoration, and Reconstruction. The Standards for Rehabilitation, printed verbatim on the facing page to the left, serve as the foundation for the design guidelines in the following sections. The Standards should be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.





# Design Guidelines for Rehabilitation and New Construction

Through a conscientious maintenance program, a building's historic fabric can be kept intact for years in the future. However, many property owners face the challenges of insensitive alterations from the past and necessary improvements for the present. These challenges are not insurmountable; buildings can be successfully restored; and new and old construction can compatibly coexist. The goal in rehabilitation is to preserve the character of the building while addressing its problems. When undertaking any project, the owner should consider how it will affect the distinctive features of the building and whether the change will improve the utility of the building. For new construction, respect for the existing character of the street is essential to preserving it when introducing a major new element in the streetscape. At the same time, the new construction (including chain stores, shopping centers and franchises) should strive to complement the character of the streetscape and community, and should not be completely featureless, sterile, and stock. They should respond to their context.

Returning buildings and areas at risk to a viable and appropriate use should be a high priority as a catalyst for regeneration of the urban structure of Morristown. When undertaking rehabilitation for continued existing use, adaptive reuse, or new construction, respect for the character of the streetscapes and individual buildings should not be confused with architectural themes, such as making all buildings look "Colonial" or "Victorian." These themes create a false sense of history and visual boredom. If the street's history is revealed through the character of its buildings, the area will be a visually stimulating and architecturally interesting environment.



# **Relationship of New Buildings to Their Surroundings**

On a street filled with traditional buildings and storefronts, a new structure can easily result in a loss of visual continuity and cohesiveness. New buildings must be designed to fit into the context of their site. A registered architect familiar with the intricacies of historic and infill building design should be consulted, and the following design factors considered:

#### Massing

The three-dimensional form of a new building, or of an addition, and its roof shapes should be similar to those of other buildings in the area.



#### Siting and Context

The new building should have the same relative placement on the lot as the older structures, and the setback distance from the street should be equal. In the case of large scale developments, the location of the new construction should take into account existing patterns of traffic and pedestrian movement. Service and parking areas should be placed sensitively with respect to the adjacent historic townscape, so that they contribute both visually and functionally.



#### Height

The height of a new building should match that of neighboring structures within a few feet. The height of neighboring cornice lines, window heads and sills, and the first floor elevation above the ground should all be carried through.





#### Proportion

The building's proportions of height to width of the façade and its components should be consistent with those of adjacent buildings. This is particularly important in the case of buildings in the downtown areas.

#### Rhythm

Each facade has a rhythm created by the placement of its windows and doors. Buildings along a streetscape create a rhythm in their placement and the location of their openings. Furthermore, in the case of downtown areas, the continuous effect of the cornice line at the tops of buildings and at the tops of the first floor storefronts is a key feature. New construction should respect these established rhythms and endeavor to maintain the rhythm as far as possible.

# Scale

The size and shape of most building elements are generally standard: an existing doorway is known to be about 3 feet wide by about 7 feet tall; a typical brick is about  $2\frac{1}{2}$ " tall by 8" long. A new building with a 10 foot tall door or 8" by 16" blocks would be out of scale with the other buildings. This is especially evident in downtown areas, where numerous buildings adjacent to each other form a continuous street front wall. It is also important to maintain other comparable elements, such as floor-to-floor heights and the placement of cornice lines and belt courses separating the floors.





#### Window Design

The openings in historic buildings often follow particular trends in the style of the buildings, sometimes expressed along an entire street front. Features such as the types of arches, presence or absence of prominent surrounds, heads and keystones, sills, etc. are important aspects of facade design. Infill development should respect the existing dominant characteristics of the street front buildings. It should try to fit into the existing scheme rather than stand out, at same time avoiding a false sense of history created by precisely mimicking existing historic designs.



#### **Materials and Texture**

The appeal of older buildings is often in their use of quality materials and detailing. The use of appropriate materials is necessary to integrate a new building or an addition with its surroundings. New construction should therefore continue the use of established neighborhood materials.



#### Colors

For infill construction, it is important to consider the placement of color and the nature of finishes on adjacent buildings, in order to maintain a harmonious street front and neighborhood. Most buildings are designed to have three material or paint colors. The walls of the buildings are considered to be the "Body Color." This can be a paint color on wood, or the natural color the building's masonry. The window sash, the door, and sometimes selected moldings are painted the "Accent Color." The remainder of the woodwork is painted the "Trim Color." In general, Victorian architecture utilized a greater number of paint colors while Colonial, Federal, and Colonial Revival utilized just one or two colors on the entire building (exclusive of the roof).





#### Character

The character of a historic building is defined by all of its architectural elements. If new features, such as additions or extensions, are added, they should be compatible and coherent with those of the existing building. At the same time, they should be clearly distinguishable as new construction. Infill development along a streetscape of historic buildings should not attempt to academically replicate the historic character of the adjacent buildings, but it must still be coherent with the adjoining streetscape. Attention to overall detail of particular elements — the character as well as the depth of window and door recesses, style of arched openings, thickness of cornices, type of roof line, etc. is fundamental to harmonious building design.

By responding to the design characteristics of the existing environment, new construction can further enhance the architectural integrity and diversity of a historic area.



#### Rehabilitation

Rehabilitation of existing buildings may affect any element of the exterior envelope. Exterior cladding is designed to protect (or provide) the structure of the building's walls. With the roof, it establishes the building envelope. This enclosure must be kept intact to prevent the structure's progressive deterioration. Identified below are some common elements and materials used in the exterior envelope. The Secretary of the Interior publishes guidelines for applying the Standards, together with additional recommendations and information.

#### Roofs

Common roof types found in Morristown include gable, gambrel, hipped, shed, mansard or flat roofs. Common materials for roofing range from standing seam metal to slate to rubber membranes. The existing roof shape should not be altered. When possible, deteriorated roofing materials should be patched with new material that matches the old as closely as possible. When it is necessary to replace a roof, the architectural features that give the roof its character should be preserved or replaced in kind if not salvageable. These features might include the cornice, brackets, the roof materials (slate, metal), dormer windows, chimneys, cupola, cresting, or weather vanes. Owners should avoid installing roof materials that are inappropriate to the style and period of the building, nor should the defining architectural features be removed or covered over with inappropriate materials such as vinyl or aluminum. Finally, any mechanical or service equipment installed on the roof should be screened from public sight as far as possible.

#### **Roof Features**

These usually include architectural details such as finials, weathervanes, cresting, and railings of widows' walks which are more commonly seen on the roofs of houses rather than those of commercial buildings. These also include stone and brick chimneys and chimney pots. These features are vital to the style and character of a particular building, and should be repaired and restored as required to maintain their original appearance. When elements are deteriorated beyond repair (in whole or in part) they should be replaced in kind, using a compatible substitute material to match the original as closely as possible.

#### Flashing

Flashing on buildings is typically metal. It is used at intersections of roof planes and around roof penetrations to divert water toward the gutters. Leaks in a roof, particularly a slate roof, may sometimes be due to failure of the flashing rather than of the roofing material itself. Like gutters, flashing can be repaired with patches of similar metal, and entire strips of flashing can be replaced in kind without impact on the integrity of the historic fabric.

#### **Gutters and Downspouts**

Gutter and downspout systems provide a path for water to flow from the roof to the ground without damaging or penetrating the building. Systems found on commercial buildings may include pole gutters, box gutters, hang gutters, or through-wall scuppers. Gutters are usually designed according to the type of roof on the building and should be repaired, maintained, or replicated rather than replaced with another type of gutter. The replacement of pole or box gutters with hang gutters is historically inappropriate and visually intrusive, hiding the cornice, which is often one of the most architecturally significant features on a building. Repairs should be made with the same material as the original, as galvanic action can occur between dissimilar metals, causing corrosion.

#### Masonry

Brick walls are historically a remarkably durable exterior cladding material requiring only periodic inspection and maintenance. Often, perceived moisture penetration of a brick wall is really a roof or gutter leak. The brick and mortar should be retained without the application of surface treatment. Repointing should be done only to those joints with evidence of moisture problems, or where enough mortar is missing to allow water to stand in the joint. The new mortar should match the old in composition, color, texture, hardness, and workmanship.

Buildings built before World War II will typically have both softer bricks and softer mortar than are used in modern construction. The use of a modern, hard Portland cement mortar is inflexible and damages older, softer brick when the materials expand in warm weather. Similarly, when the materials contract in cold weather, Portland allows water to enter through the gaps that form at the joints. The pointing should also be slightly recessed from the face of the brick to allow for expansion.

Many building owners unknowingly overreact to moisture problems and sometimes exacerbate them by applying paint, stucco, or a water repellent coating or sealant to brick. These remedies can often create further problems by trapping moisture in the brick that may later freeze and expand, causing the brickface to pop off. The newly exposed softer inside of the brick is more absorbent than the harder face, and therefore more vulnerable to moisture absorption. If a problem remains after roof leaks have been cured and repointing has failed to help, the owner should consult an objective professional before assuming that a coating will provide the solution.

As with brick, other types of masonry should be maintained by periodic inspection and pointing maintenance. Coatings should be avoided. Masonry buildings should not be re-surfaced with historically inappropriate new materials such as artificial stone, brick veneer, artificial siding, or asphalt shingles. Individual bricks or stones should, if necessary, be replaced in kind.

Masonry buildings should be cleaned only when necessary to halt deterioration. Only gentle methods like low-pressure water and natural bristle brushes should be used. Any abrasive method, such as sandblasting, erodes the surface and accelerates deterioration. High-pressure water may penetrate the surface of some materials, where it may freeze and expand, causing damage, or it may cause efflorescence on the interior. It may also penetrate around openings, causing water damage to plaster. If chemical cleaners are used, avoid products that may have an adverse reaction with the masonry (for example, do not use acid on limestone or marble).

### Stucco

Walls and decorative features on facades should only be stuccoed if they were originally so. Where necessary, stucco should be patched with a mixture that duplicates the original as closely as possible in composition, color, texture, hardness, and type of finish (smooth, troweled, etc.).

#### Wood

Wood siding includes clapboard, shingles, and board-and-batten siding. Wood siding is an essential part of a building's character and appearance. It is easily repaired by patching with new wood where deteriorated. If properly prepared and painted on a regular maintenance schedule (usually between five and ten years depending on environmental conditions), wood siding will last hundreds of years. It is not appropriate to strip and stain siding that was painted historically. Covering over wood siding with vinyl or aluminum siding has two major disadvantages. The new material traps moisture, accelerating deterioration of the siding and the wood frame structure beneath and creating an inviting environment for insect infestation.



Covering over the siding also often means removing architectural elements and creating an undesirable flat appearance by bringing the siding out flush with the window and door casings.

#### Metal

Some architectural elements are executed in metal, including cast iron, steel, pressed tin, aluminum, and zinc. These architectural features contribute to the building's character and should not be removed. Cast iron and steel can usually be cleaned by mechanical methods, including sandblasting, while pressed tin, zinc, and aluminum should be cleaned by the gentlest method possible.

#### **Cornices, Trim and Ornamentation**

The decorative details applied to buildings, including cornices, brackets, pilasters, balustrades, cornerboards, turned work, terra-cotta panels, window and door casings, and shutters, help to indicate a building's style and period. On commercial buildings it is more common than on houses to see these elements executed in brick, stone, terra-cotta, cast iron, or sheet metal. As on a house, though, these elements can also be executed in wood. This variety of materials makes each building in the streetscape unique. These elements should be retained and repaired or, if necessary, replaced in kind. It is sometimes possible to find substitute materials that are compatible with the original material when the original is no longer available or is prohibitively expensive. Substitute materials should be similar to the original in composition, size, shape, texture, and color.

#### Paint

Paint can be removed by several methods. Hand scraping or sanding, which should be done wet to keep dust down, is the preferred method of removal. The paint should only be removed to a sound substrate. It is not necessary to strip it completely. The paint chips and runoff water should be collected and properly discarded if the paint contains lead, as most paint applied before 1978 does. Chemical strippers are also useful. Any type of burning or heat method, however, is discouraged due to the very real danger of fire and the destruction of the building.

New paint schemes should match the original, if known, or should be appropriate to the period of the building. The New Jersey Main Street program provides assistance with the selection of period-appropriate paint schemes for buildings with Main Street districts.

#### Porches, Balconies and Balconettes

Porches and balconies are more common in residential buildings than in commercial buildings. Some downtown buildings in Morristown are residences that have been changed to commercial uses, or they are mixed-use buildings with retail use on the first floor and residential above. Few of these feature porches and/or balconies. The features of a porch and a balcony or balconette should be retained and maintained. Where features have been lost or are severely deteriorated, they should be replicated if possible or replaced with compatible elements of the same size and proportion if components matching the original cannot be obtained. Porches and balconies should not be enclosed with opaque walls or materials. If the porch has become part of a storefront, it should be glassed in to maintain the visual effect of openness.

### Windows and Doors

The fenestration pattern is an integral part of a building's style. Existing openings include window sash, glass, lintels, sills, architraves, shutters, pediments, hoods, steps, and hardware. The size of the openings, panes or sash should not be altered, as such changes destroy the scale and proportion of the building. If replacement is necessary due to deterioration, replacement windows and doors should be compatible in design and material to the original and/or to the style of the building. For replacement sash, real muntins should be used instead of applied muntins. Plastic awnings and vinyl or aluminum non-operable shutters are historically and aesthetically inappropriate.

#### Storefronts

The storefront historically provided six different functions for the internal retail use – structure, enclosure, entry, display, identity, and lighting. As we investigate the four basic components of the typical storefront, we can see how these needs were addressed.

Beginning at the top, the first component of the traditional storefront is its entablature. Also called the storefront cornice, the entablature marked the transition from the storefront to the upper facade. It visually receives the upper wall material. More important, the entablature provides an expected place for signage, and a level of stylistic decoration through its molded cornice.

Below the entablature most storefronts have transom windows. These windows allowed natural light to enter the interior. Before the advent of gas and electric lighting, the transom's illumination was critical to the conduct of commercial trade. Improvement in the quality of the light provided by the transoms was made by incorporating glass panes with horizontal lines of prisms on the interior surface to diffuse the light. The windows should continue to have transparent glazing in order to maintain their traditional function. Windows should not be replaced by blank walls, and a dropped ceiling should be held back from the transom surface.

The display windows, often flanking a recessed entry door, were the most prominent feature of the enclosure that created the storefront. They were aided in their purpose by the bulkheads below them that raised the floor of the display area to a more-appropriate height. The bulkheads were often decoratively paneled for visual interest. However, their primary purpose was to protect the display windows from the impact damage that might occur if they were carried to the ground.

Threaded through the entire composition is the structure that establishes the storefront's articulation while carrying the weight of the upper facade. In the earliest storefront systems, this structure was composed of either stone or wood. With stone construction, the storefronts reflected the post-and-beam system that had persisted for centuries, where the size of the storefront window (or door) bay reflected the limited span of the stone lintel above. With nineteenth-century wood construction, a timber could efficiently span about twenty-two feet. This dimension, with a masonry-bearing wall on either side, is reflected in the typical commercial lot sizes throughout downtown districts.





The availability of cast iron elements had a major impact on storefront design. The use of slender cast-iron columns allowed larger display windows, while cast-iron beams replaced the earlier stone and wood spans. Cast iron also offered tremendous decorative opportunities, since the molten metal could be poured into forms that were detailed for architectural expression as well as structural functionality. In larger cities, it was not uncommon for the entire facade of mid-to-late 19th century commercial buildings to be executed in cast iron. Because cast iron had to be painted, its decorative nature promoted the use of intricate paint schemes in bold Victorian colors.



Subsequently, steel beams gained favor for horizontal structural spans due to their superior strength. They could span great distances with limited deflection, providing storefronts beneath that were clear of vertical supports. This allowed the glass of the display windows to be uninterrupted, even at the corners of the recessed entries. Concurrently, veneers became popular for storefront coverings. Perhaps the most popular of these veneers was structural glass — tinted, self-supporting panels of glass. Known by the trade names of "Carrara glass" or "Vitrolite," structural glass was at its zenith of popularity in the 1930s.

A sensitive rehabilitation will be based on an understanding of the evolution of the storefront and its architectural style. If the historic storefront still exists, it should be retained and maintained. If the storefront has been altered but still retains some original features or fabric, new work on the storefront should focus on reversing inappropriate alterations. If a storefront has been completely replaced, new construction should be designed in relation to the building as a whole. If historic photographs are available, they should guide the design of the new storefront. In the absence of documentation, the storefront should be compatible with the rest of the building in materials, style and detailing. It should contain the basic elements of a typical historic storefront, including, from the bottom, paneled bulkheads, display windows, a centered, usually recessed entrance with transom, side piers, a signage band, and a cornice or entablature.

Modern features without historical basis should not be incorporated into new storefronts or added to existing ones. Storefronts should not be enclosed for residential use, as these buildings then detract from the commercial streetscape and the buildings are prevented from being utilized to their highest and best use.



#### Signs

Signage is a very important visual aspect of a downtown area. Signage should be clear and simple. Extraneous signage should be eliminated as it detracts from primary advertising. Signage should be placed to complement the storefront's design. For example, signage can be architecturally centered above the storefront bays in the "signband" area of the storefront's cornice entablature, or placed on the valence of an awning. A line of signage painted along the base of the shop window will effectively identify the products sold therein (and can then be reinforced by the actual products displayed above in the window). Wood or metal signs are appropriate in a sign band; plastic signs and internally lighted signs are not historically or aesthetically appropriate. Signage for different businesses in the same building or sharing a single entablature should follow a similar design for uniformity and continuity. Signs should not be suspended from the architectural elements of the building such as balconies, cornices, trim or ornamentation; neither should they be directly applied to nor painted on such features or on the building façade. Historic shingle signs should be retained and repaired to their original appearance. It is very important that the colors of the signage, although contrasting with the background for clear visibility, should be compatible with the rest of the building.

#### Awnings

Awnings should be canvas material over retractable metal frames. Fixed plastic or metal awnings are historically inappropriate and visually intrusive. The size and design of the awning should be such that it does not dominate the façade, but rather complements it. Care should be taken during the installation of awnings not to damage the historic fabric. They should be removable without disturbing the elements of the façade. Awnings should be placed in such a manner that they do not obscure the historic cornice and entablature of the storefront. The design of the awnings should not allow water accumulation that can in turn affect the building. An awning can often also serve as a location for primary signage, as well as providing shade and solar control. The signage on the awnings, though, should be controlled and limited to simple painted letters on the valence. Colors of awnings and the signs on them should also be compatible with the colors of the building façade.









#### Grates

Solid roll-down security grates are a significant visual intrusion makes a neighborhood seem undesirable. Furthermore, solid grates prevent a passerby (including the police) from seeing intruders who have entered the store from the top or rear. In most cases, alarm systems provide sufficient protection from isolated incidents of broken windows. If a grate is absolutely necessary, open mesh grates instead of solid are visually preferable and should be installed inside the storefront windows to reduce their visual intrusion.

#### Lighting

Historically, storefronts were not illuminated. If lighting is required, however, gooseneck lamps or shadowbox lighting is visually preferable to any other methods of lighting. In residential neighborhoods, light fixtures that are attached to the exterior of buildings and free standing lampposts in the front yards should be compatible with the design and style of the building.

#### **Outdoor Displays**

When outdoor displays are used by stores, the designs of the display units should complement the storefront. Painted metal or wood would be appropriate material to use for such displays. The display units should be small enough that they don't obscure the storefront. Colors of the display units should be harmonious with those of the storefront.

#### **Outdoor/Street Furniture**

Outdoor furniture is a great means of bringing life to a commercial street by providing small pockets for social interaction. The design of this furniture must stand up to street wear and tear, and at the same time should complement the adjacent buildings and streetscape. The color scheme should also be compatible with the storefront and building it is associated with. This furniture should preferably be removable and not fixed. Public benches, trash cans, bollards and other elements of street furniture not associated with storefronts should be designed to complement the overall character of the district and attempt to blend with the surrounding landscape.

#### **Landscape Elements and Planters**

Trees planted on private property and on the sidewalks should be compatible with the scale of the adjacent buildings and streetscape and should not in any way obstruct visibility or hinder circulation. Shrubs and planters should be used effectively to enhance the character of a building or a storefront. The size and design of planters and flower boxes on the sidewalk or on window sills should be in proportion to the size of the building elements. Materials commonly preferred for such planters are plain or ornamental ceramic, stone, wood, concrete and sometimes fiberglass. Plastic planters are generally not appropriate. Adequate precaution should be taken against water run-off from flower boxes on sills so as not to stain the building fabric. It is very important, however, that the plants and shrubs and planters they are in should be regularly watered, pruned, maintained and cared for.

#### **Side and Rear Elevations**

In the case of commercial buildings in downtown areas, side elevations of buildings on street corners are almost as important as the front facades. In the case of residential units, both side elevations are generally visible from the street across wide side yards. It must be noted that all of the above guidelines should apply to the treatment of side and rear elevations as well as to front facades, particularly in the case of detached residential buildings. In the rear spaces of commercial buildings, service areas should be screened with landscaping, planters, or historically appropriate protective structures.

#### Additions

Additions to existing buildings should respect the original scale, proportions, and rhythms. All the materials, colors, textures and finishes used for additions should be compatible with and subservient to those of the existing building. Additions should not attempt to outshine the existing building, but rather complement and highlight its features.



Before



After



### Site

Typical elements of site design found in residential neighborhoods include fencing (wrought, cast iron or wood); benches; decorative paving; and garden elements such as bird feeders, pavilions, historic horse mounts, fish ponds, water fountains, and sometimes artistic sculptures. While most urban commercial buildings typically stand shoulder to shoulder or with only narrow alleys between, some of these historic site elements may be encountered there as well. These elements should be repaired and maintained, since they connect the building to its surroundings. New site elements should be compatible in materials and style.









# **Sample Maintenance Program**

The styles and elements of a street's buildings create a visually dynamic and cohesive environment. Yet it is these character-defining elements — brackets, finials, decorative shingles, trim, and other details — that are most susceptible to loss through unchecked deterioration and poor preservation practices. Simple maintenance tasks quickly become large preservation problems if left unattended.

From the standpoint of both cost and time, it is much more effective to keep old materials than to cover or replace them with new or synthetic materials. If a wooden building is repainted before the old paint coat begins to peel, costly surface preparation and wood replacement can be avoided. Then artificial siding materials need not even be considered, with their relatively high expense, lack of architectural character, and inherent long-term problems. A preservation plan for a building is really a strategy for undertaking periodic maintenance and avoiding mistakes. The following recommended maintenance program will help property owners to identify small problems before they become large ones.





# Semi-Annual Tasks

### Basement, Cellar and Crawlspaces:

- □ Inspect basement, cellar spaces, and crawlspaces, noting musty or damp smells. When humidity is high, a window fan or dehumidifier should be used to dry the air and prevent wood deterioration.
- □ Inspect basement and cellar floors and plastic sheeting on crawlspace floors for evidence of standing water or visible dampness. Determine cause of moisture infiltration and take steps to arrest future infiltration.
- Verify that the crawlspace vents in the foundation walls are clear of any obstructions. Remove blockages as necessary.
- Inspect basement, cellar and crawlspace framing for fruiting bodies such as fungus growing out of wood, a sign of active biological deterioration. Treat as necessary.

## Attic:

Check condition and position of insulation. Check the roof sheathing for water stains and dampness. Check for proper ventilation. Make sure exhaust fans are operational and vents are not housing birds' nests or other obstructions.



# Window Wells:

Remove leaves and debris. Check whether standing water is collecting. The bottom of the window well should be covered with gravel (not concrete) to allow water to percolate through the soil. Check condition of basement window trim. Repair and / or paint as necessary.

### **Roofing Shingles and Dormer Sheathing:**

 Check for worn, loose, or missing shingles. Repair leaks, weak areas, loose attachments. Replace missing shingles to match.

## Sheet Metal Coping, Roofing, and Flashing:

 Check for cracks, warps, distortions, or weak areas, loose or damaged seams, loose attachments. Check for loose, damaged or missing sections. Check substrate underneath for moisture damage, especially at attachment points. Replace damaged or missing sections to match existing sections. Repair leaks and weak areas. Reattach to repaired masonry or wood substrate. Paint colors for flashing should match adjacent construction.


#### Water Conduction Systems/Gutters and Downspouts:

Look for leaks or blocked sections of gutters and downspouts during a heavy rainstorm. Clean system of any blockages and repair leaks. Check for any loose gutters and downspouts. Reattach as necessary.





#### **Caulking Compound:**

Check caulk for brittle, cracked or missing pieces.
Remove any damaged areas, clean, prime or seal according to manufacturer's specifications, provide backer rods and bond-breaker tape as required, and replace caulk. Sealant should be a factory-mixed color to match adjacent construction, or should be paintable. Caulking compound typically has to be replaced about every six years.

# Woodwork: Doors, Windows, Shutters, Cornices, and Trim:

Check for moisture damage, warping, splitting and unsound joints. If wood is decayed, determine source of moisture, stop leaks, and replace decayed wood and damaged flashing. Repair unsound joints. In natural





finish woodwork, repair holes and damaged areas using wood that matches the existing in species, grain, pattern, and color. In painted woodwork, seal fine cracks with wood filler. Check putty for cracks or missing pieces. Re-glaze where necessary. Coat all bare wood with preservative and refinish.

- Prime and paint any new flashing, putty, or other glazing materials.
- □ Check for loose attachments of hardware. Reattach as necessary.
- Lubricate moving parts, such as door and shutter hinges, with non-running grease or silicone. Open and close shutters to prevent rusting of hinges.



#### Storm / Screen Windows:

Remove debris; unclog any drainage slots in frames. Check for loose joints, deteriorated paint, corrosion, holes, moisture damage, and wear. Repair any loose joints or attachments. When paint finish has deteriorated, prepare surface and repaint a color to match adjoining window.

#### Glass:

Check for cracked or broken panes of glass. Where cracked glass is modern, replace; where cracked glass is historic (distinguishable by surface imperfections), check the pane for tightness and, if loose, replace. Replace all broken glass, matching decorative pieces.



#### Paint:

□ Check for bare spots, blistering, peeling and mildew. Check where moisture is entering wood and stop leaks. Wash mildew with fungicide. Split blisters, scrape peeling areas, remove rust and sand rough spots. Coat bare wood with preservative. Prime and paint wood with two coats of exterior house paint, using materials compatible with the preservative. Typically, paint has to be replaced every 5 to 8 years.



□ For ferrous metals such as cast and wrought iron, and for metal roofing, scrape and wire-brush deteriorated paint and rust from the metal before priming and repainting with paints made for metalwork (not standard house paint).



#### **Exterior Light Fixtures:**

 Check for deteriorated paint, rust, corrosion, moisture damage, and wear. Repair any loose joints, weak links, attachments of hardware, and wiring conditions as necessary. When metal finish has deteriorated, restore to match original. Replace broken glass to match original.

#### **Structural Checkpoints:**

- Check exposed exterior and interior surfaces of walls and foundations, with particular attention to areas of stairways, floor openings, wall openings, and changes in wall masonry material. Check for cracks and collapsing, leaning or bulging areas or other signs of uneven settlement, movement, or structural deterioration.
- Check interior wall surfaces at upper levels, with particular attention to joints between side and front and rear walls, joints between floors and end walls, and joints between partitions and ceilings. Check for cracks, crumbled plaster, gaps between finishes or other signs of movement.
- □ Check exposed roof framing members for rotted, split, or cracked timbers. Check exposed masonry where timbers bear on walls for crumbling or gaps which might indicate wall movement.
- If structural members have deteriorated, or if significant cracks or other signs of movement are observed, review structural condition of building with an engineer qualified to evaluate its condition and repair in accordance with engineer's recommendations.

#### **Chimneys:**

 Check fireplace box floors for signs of brick deterioration (brick dust and/or pieces of brick or mortar) or animal activity (nesting materials, droppings, etc.). When these signs are present, consult a professional and treat accordingly. Have a



professional inspect and clean any working fireplace flues annually. From the ground, check the exterior of the chimney where it projects above the roof for signs of movement. Remove television antennas that are no longer in use. Rebuild leaning chimneys, matching the material, color, design, and detailing of the original.



#### **Insect Infestations:**

Inspect building for termites and other wood-damaging insects. Note evidence of insect activity: small holes in the wood, small piles of sawdust, clay tubes, or actual insects. Annually or bi-annually this inspection should be undertaken by a professional exterminator. Treat as necessary.

#### Landscaping:

 Check grading to assure proper drainage of rainwater away from building. Prune trees as necessary to promote health and to prevent branches from rubbing the building's roof or walls. Trim or relocate any bushes, and remove any seedlings or weeds growing within two feet of the porch or building foundation walls. Remove any vines growing on the building walls.



#### **Annual Tasks**

#### **Brick/Stone Masonry:**

□ Check for moist areas, cracks, crumbling material, loose pieces, missing mortar and efflorescence (white discoloration). Determine where moisture is entering masonry and repair any leaks in roofing, cornice, flashing, downspouts, and joints between masonry and other materials. Replace flashing or re-caulk leaking joints as required. If significant cracks, movement, surface spalling, or material deterioration are found, review condition of masonry with registered architect or professional engineer experienced in methods of evaluating brick and masonry. Make repairs as necessary in accordance with professional recommendations. Repair or provide additional support to door or window heads which are unstable. Vinyl siding or stucco should never be applied to hide damaged masonry; proper repairs should be undertaken.



□ Check for loose units of masonry and missing or deteriorated mortar. Repoint joints that have loose or crumbling mortar, using mortar that matches original in color, texture, constituent composition, and workmanship. Mortar should not have high Portland cement content and should be no harder than surrounding brick or masonry or original mortar. Conduct the following procedure: remove deteriorated or loose mortar with hand tools to a minimum depth of 2.5 times joint width; clean joints; apply fresh mortar to wetted joints in layers not thicker than one quarter inch. Joints should be slightly recessed to maintain original width and tooled to match original finish.



□ If the masonry is heavily soiled, clean only with materials and techniques that will not damage the masonry. Scrubbing with natural bristle brush wetted with natural detergent in water is usually sufficient to remove dirt and grime. Sandblasting, wire brushes, grinders, sanding discs, or other abrasive methods should not be used, nor should any harsh chemical that weakens the masonry be applied. Any chemical cleaner, if required, should be chemically neutralized and thoroughly rinsed off in order to remove residues that could damage masonry or finishes. Pressure water washing, if





necessary, should be low pressure (not exceeding 600 psi pressure at the nozzle or 4 g.p.m. volume). Never clean masonry when there is any possibility of frost, as the absorbed moisture will freeze within the wall causing severe damage.

- Snow removal materials that might damage masonry, such as salt, should not be used on masonry steps or adjacent to stone foundations or brick walls.
- Where necessary, stone work should be patched to match the original in color and texture using a low Portland cement content patching material.



#### Terra Cotta Masonry

- □ Check for deteriorated mortar or caulk joints, deep crazing or spalling of glaze, rust stains, holes, cracks, deformations, missing units or spalled portions, loose units, exposed metal anchors or reinforcing. Where loose elements pose a threat to public safety, stabilize temporarily and repair, or remove and store units for either future re-installation or use as models for forming replacements. Acceptable methods of stabilizing can include nylon netting and metal strapping.
- □ Check for stained, loose, crumbling, or missing mortar. Check for brittle, cracked or missing caulk.

- □ If exposed reinforcing, significant cracks, or spalling or severely deteriorated joints are found, review condition of terra cotta with an architect or engineer experienced in methods of evaluating and preserving glazed architectural terra cotta.
- □ Any cleaning of terra cotta should be performed with materials and techniques which will not damage the masonry. Sandblasting, wire brushes, grinders, sanding discs, or other abrasive methods should not be used, nor should strong acid solutions or high pressure water washes be applied. Materials and techniques should be selected based on results of test patch samples, which proceed from the gentlest approaches (e.g. water, detergent, and natural or nylon bristle brushes) to progressively stronger approaches. Any chemical cleaner should be chemically neutralized and thoroughly rinsed off in order to remove residues which could harm exterior or interior finishes.
- Repoint deteriorated mortar joints in accordance with paragraph on repointing above. New mortar should not have high Portland cement content and should have a compressive strength lower than adjacent terra cotta. Model for repointing should be existing original mortar joints with slightly recessed finish.



- Re-flash and re-caulk leaking joints between masonry and other materials according to the paragraphs on flashing and caulking above.
- Protect terra cotta in areas of glaze spalling or minor material spalling by removing loose material and sealing with masonry paint, acrylic-based proprietary product, or other coating recommended by architect or engineer with experience of this type of preservation work. Coating should be tinted to match color of original glaze.
- Protect exposed anchors, seal holes and cracks with waterproof materials which will expand and contract with the movement of the terra cotta. Use sealants or caulks appropriate for the range of movement in each location.
- Replace severely spalled or damaged units which are unstable or which contribute to the instability of the surrounding masonry, using materials which are compatible with existing original materials in appearance, weight, anchoring, weathering and thermal expansion properties (for example, terra cotta, stone, fiberglass or precast concrete units.) Incompatible materials, such as stucco, cement plaster, bituminous compounds, and brick, should be avoided. Bonding to masonry backfill and metal anchoring should be similar to originals except that anchors should be treated to resist corrosion.
- ❑ Waterproof coatings should not be reapplied except in special circumstances. Prior to any large-scale application of a waterproof coating, adequate measures should be taken to ensure that all flashing and mortar and caulk joints are sound, and that spalled areas of terra cotta units are protected.

#### **Stucco and Concrete:**

 Check for moist areas, cracks, loose chunks, or crumbling stucco and concrete. Repair using stucco or concrete patching material with the composition, color, texture, and finish of the existing material, not Portland cement. Adequately bond patches to substrate and reinforce large patches with fiberglass mesh or galvanized metal lath. Re-flash and/or re-caulk cracks and leaking joints as required.

#### Metal Railings and Grilles:

□ Check for deteriorated paint, rust, moisture damage, and wear. Repair any loose joints, attachments, or hardware. Remove rust, using materials and methods which will not accelerate pitting and corrosion of the metal. Determine whether the original finish was natural or oxidized, and whether the metal is solid or plated. Chemically or mechanically clean only as required. Prepare test patch samples before proceeding with work. Abrasives such as pumice and oxalic acid, #0 stainless steel wool, non-woven abrasive mesh pads, Turkish oil and emery, rottenstone and oil, whiting and ammonia, precipitated chalk and ammonia should be used only if approved non-damaging samples have been prepared. Harsh abrasives which might scratch or mar the metal should not be used. Prime and paint.





#### Varnish:

Check for cracking, white water stains, and discoloration of varnish. Restore varnished finish as follows: first, try to restore existing varnish by softening with methylene chloride, taking appropriate safety precautions while using this solvent, and buffing with fine steel wool and a finishing oil to a new smooth finish. If that procedure is unworkable, remove existing varnish using materials and methods that will not damage wood. Apply a non-staining preservative or water repellent, such as a proportional mix of three cups exterior varnish, one ounce melted paraffin wax, and enough mineral spirits, paint thinner, or turpentine to make one gallon. If wood has been stained, re-stain to original color. Revarnish.

#### **Exterior paving:**

 Check for missing, loose, and/or broken paving bricks and dangerous or uneven sections of paving. Re-secure loose bricks and replace missing or broken bricks with new or salvaged paving bricks to match the existing in size, color, texture, and hardness. Replace any uneven sections of paving which present tripping hazards.



#### Landscape:

 Check health of all existing trees. Prune trees as necessary to promote health and to prevent branches from rubbing the building's roof or walls. Remove any shrubs or volunteer plant growth in close proximity to buildings which may undermine the foundation walls.



 Check slopes of grading adjacent to all foundation walls to verify that rainwater will travel away from building. Distribute additional topsoil as necessary to establish positive slopes away from building, taking care not to cover any wood sills or trim with soil. Look for artifacts during ground disturbance. If any artifacts or archaeological features are observed or if significant excavation is planned, consult an archaeologist.

## **Appendix A: Glossary of Terms**

(These definitions are taken, in part, from the *Dictionary* of *Building Preservation*, edited by Ward Bucher.)

Apron A decorative, horizontal trim piece on the lower portion of an architectural element.

Architectural Style The overall architectural appearance of a building or structure, including its construction, form, and ornamentation.



Architrave

Articulation

The ornamental molding/trim around jambs and head of a wall opening.

Changes in the design of a surface to produce contrast, as seen in projecting piers of a structural frame (for example).





Ashlar

Quarried stone building blocks that have been squared and finished with a smooth surface; beginning in the 19th century, the term indicates facing backed by rubble or brick walls.

Backpriming

The coating of unexposed surfaces of exterior wooden members with primer paint to protect against deterioration.



Balconette

A small, projecting, decorative balcony.

Baluster	One of a number of closely-spaced, short vertical pieces providing support for the railing of a balustrade.
Bargeboard	A decorative board attached under the projecting portion of a gable roof.
Batten Door	A door formed of full height boards glued edge to edge with horizontal and vertical battens applied to give the appearance of paneling; a rough door formed of full height boards attached edge to edge by horizontal boards nailed to the verticals.
Вау	The portion of a facade between columns or piers providing regular divisions and usually marked by windows or doors.



Bay Window

A window (or group of windows) which projects from the vertical plane of a facade.

Bead

A continuous convex shape at the edge of molded woodwork.



Belt Course

Blind Arch

Bond

Box Cornice

Bracket

Built-in Gutter

**Bolection Molding** 

	Came	A metal strip, usually of lead, which divides the pieces of glass in a stained glass window. The use of these strips is called <i>caming</i> .
A horizontal band usually marking the floor levels on the exterior facade of a building. A curved, recessed area above a window or door opening which is infilled with wood or stucco rather	Cant	An architectural member that forms an angle with a vertical wall, most commonly used to describe the piece of wood which diverts water at the upper face of a chimney on the downward slope of a roof.
than glazing.	Capital	The top element of a column or pilaster.
On exterior doors, a decorative molding which runs around the panels, overlapping and projecting beyond the rails and stiles.	Casement Window	A window with one or two sashes which are hinged at the sides and usually open outward.
A term to describe the various patterns in which brick (or stone) is laid, as in <i>common bond</i> or <i>Flemish</i> <i>bond</i> .	Caulking	The non-hardening putty-like material used to seal the joints between dissimilar exterior materials, such as where wood window trim abuts a brick wall.
A hollow, projecting cornice consisting of soffit board, fascia board, and decorative wooden moldings. This type of cornice sometimes includes a built-in gutter.	Cheek Walls	The pair of low, often angled, support walls that flank masonry steps or bulkhead doors.



support.

Bulkhead Doors

The paired, sloping or flat doors that provide exterior access to a basement.

A projecting wooden or tin element that spans between vertical and horizontal surfaces as a decorative

A sloped channel in the top of the cornice, open to the roof, that serves to collect and direct rainwater to the





Chimney Pot An extension of the top of a chimney above the masonry; usually of decorative terra-cotta; in a cylindrical, octagonal or spiral shape; commonly found in Tudor Revival style buildings. Clapboards Horizontal wooden boards, thinner at the top edge, which are overlapped to provide a weatherproof exterior wall surface. Classical Style Architecture inspired by the buildings of ancient Greece and Rome, especially in the designs of columns. Clipped Gable A gable roof where the end of the ridge is terminated in a small, diagonal roof surface. CMU Concrete masonry unit; a hollow, structural concrete block frequently used for building foundations and porch piers. Column A vertical structural member, usually slender and circular or square in cross-section.

Common Bond	A brickwork pattern in which most courses are laid flat, with the long "stretcher" edge exposed, but every sixth to eighth course is laid perpendicularly, with the small "header" end exposed, to structurally tie the wall together.
Conservation	The skilled repair and maintenance of cultural artifacts, including buildings and historic or artistic materials, based on the philosophy of preserving rather than replacing, with the aim of extending their longevity and aesthetic qualities.
Console	A decorative vertical element, usually of pressed tin, which ends a cornice.



Corbelling

Successive brick courses projecting beyond the face of the wall to form a decorative bracket or cornice.



Corinthian

The most ornate of the five classical orders of architecture, used to describe a fluted column with a bell shaped capital comprised of two rows of acanthus leaves, topped by volutes and decorative abacus.

Cornerboard

A vertical strip of wood placed at the edges of a frame building.



Cornice

A continuous projecting horizontal element at the top of a wall.

Cresting

A decorative row, usually of metal, ornamenting the top edge of a roof.



Cross-Gable

A secondary gable roof which meets the primary roof at right angles.



Cupola	A domed roof over a windowed circular or octagonal base, usually atop a tower or on the ridge of a roof.
Dentils	A row of small, projecting blocks articulating a molding.
Diamond Shingling	A decorative pattern of wall shingles laid in staggered horizontal rows; the corners of the wooden shingles have been cut off at the bottom to create a diamond shape.
Diamond Panes	A diagonal grid pattern created by caming within a sash to hold diamond shaped glass panes.





Door Hood

Doric

A decorative and functional projecting pediment above the door.

One of the five classical orders of architecture, predominantly used to describe tapering columns with molded capitals and bases.



Dormer	A projecting vertical structure on the slope of a roof which provides light and headroom to the interior space.
Double-Hung Window	A window consisting of two sashes, one above the other, both of which slide vertically on separate tracks.
Downspout	A vertical tube-like element, circular or rectangular in cross-section, which carries rainwater down from the roof to the ground.
Dutchman	A patch spliced into wooden members (where damaged or deteriorated) to match the original construction.
Eave	The underside edge of a roof where it projects beyond the wall.



Efflorescence	A deposit of soluble salts on the face of masonry, brought from within by water entering the wall.
Elephantine	A term to describe very squat, disproportionately heavy columns.
Elevation	A vertical exterior wall, also called <i>façade</i> ; or, the mechanical drawing of such a wall.
End Chimney	A fireplace flue placed on the outside wall of one of the short sides of a rectangular building.



Entablature	The decorative and structural
	horizontal element at the top of a
	storefront, a Classical Revival
	doorway, or spanning atop columns in
	classical architecture.
Entasis	The diminishing taper of the upper
	two-thirds of a column.
Facade	The front or primary vertical exterior
	wall of a building (see <i>Elevation</i> ).
Fanlight	An arched, semi-circular or elliptical
	transom window above a doorway.

Fascia	The vertical surface of the horizontal element that encloses a box cornice or covers the outer edge of a porch floor structure.
Feathered Edge	A diminishing thickness at the edge of a new material where it adjoins old, used to minimize the appearance of the joint (in wood) or transition (in paint).
Fenestration Pattern	The placement and rhythm of window and door openings on a building's facade.
Finial	A projecting decorative element, usually of metal, at the top of a roof turret or gable.



Fishscale Shingling	A decorative pattern of wall shingles composed of staggered horizontal rows of wooden shingles with half-round ends.
Fixed	Not movable, as in an inoperable window or an artificial shutter.
Flared Eave	The eave of a roof that gently curves out, extending the slope at the edge of the roof.
Flashing	Thin metal sheets used to prevent moisture infiltration at joints of roof planes and between the roof and the vertical surfaces of roof penetrations or abutting walls.
Flat Seam	On roofs, the joint between the vertical metal roofing strips which are folded together and laid flush to the surface to prevent moisture infiltration at the seam.

Flemish Bond	A brickwork pattern where the long "stretcher" edge of the brick is alternated with the small "header" end for decorative as well as structural effectiveness.
Flute	One of a series of decorative concave vertical grooves cut into the surface of a column or pilaster.
Foliated	Decorative carvings resembling flowers and leaves.
Foundation	The lowest exposed portion of a building wall, which supports the



structure above.

Fretwork	A screen or latticework composed of
	intricate interlaced openwork.

The middle portion of a classical cornice; also, applied decorative elements on an entablature or parapet wall.



Gable RoofA pitched roof with one downward<br/>slope on either side of a central<br/>horizontal ridge.Gambrel RoofA pitched roof with two different<br/>slopes on either side of a central,

horizontal ridge.

Morristown

Frieze

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Gingerbread	A colloquial, but widely accepted term for decorative, sawn ornamentation on Victorian-period houses.
Glazed Header	The exposed small end of a brick placed close to the heat source during firing to produce a darkened, glossy surface.
Half-Timbering	A decorative treatment on stucco-covered buildings in which vertical, diagonal, and horizontal wooden members divide the stucco into panels. Originating in England during the Elizabethan period when the wooden members were actually structural, this treatment characterizes houses of the Tudor Revival style of architecture.
Hang Gutter	The horizontal, gently-sloping element suspended from the bottom of a roof slope to direct rainwater to the downspout.
Head	The top, horizontal member of a door or window frame.
Hipped Roof	A roof which slopes towards all walls.
Impost Block	The element at either side of an arch,

from which it springs.



Ionic	One of the five classical orders of architecture, used to describe decorative scroll capitals.
Infill	New construction where there had been an opening before, such as a new building between two older structures or block infill between porch piers or in an original window opening.
Jambs	The upright sides of a window or door opening, perpendicular to the wall, also called reveals.
Jetty	A projecting upper story of a building.
Jigsaw Bracket	A decorative bracket cut from a flat board with a jigsaw.
Keystone	The uppermost wedge-shaped element at the center of an arch.
Knee Brace	An oversized bracket supporting a cantilevered or projecting element.



Lantern

Lattice

Light

Lintel

A windowed structure on top of a roof or a dome; maybe used for lighting the interior space below. An open grille of interlacing thin wood strips used as a screening between the piers of a porch. Leaded Glass Glass, whether clear or stained, set in lead cames. A pane of glass or multi-paned glass area, as in *sidelight*. A short, horizontal member spanning the top of an opening in a wall. Louvered Shutter A vertical wooden element, hinged to close over a window or door opening, composed of sloping horizontal slats held in a framework of rails and stiles. Louvered shutters are designed to admit air but not rain.

Lunette Window

An arched, elliptical window.



Mansard Roof	A roof with two slopes on each side, the lower of which is very steep and usually covered with slate. This roof form characterizes houses of the Second Empire Style.
Masonry	Brick or stone construction.
Massing	The three-dimensional form of a building.
Meeting Rail	The horizontal member where the lower and upper sashes of a double-hung window overlap.



Modillion	One of a series of oversized dentils or scroll-shaped brackets supporting the projection of a cornice.
Mortar	A mixture of sand, lime, cement, and water used as a binding agent in masonry construction.
Motif	A principal element of a design or ornamentation that is repetitive.





Mullion

A heavy vertical divider between windows or doors.

Multi-Light Window

A window sash composed of more than one pane of glass.



Muntins

Thin strips of wood which divide and hold the panes of glass in a multi-light window.

Newel	A post at the top or bottom of a set of steps which terminates the stair railing.
Oriel Window	A bay window (or windows) which projects above the ground floor level.
Paired Columns	On a porch, two columns supported by one pier.



Palladian Window

A tripartite opening with central arched-head window flanked by smaller square-head windows that share the same sill.

Paneled Door

A door composed of solid panels (whether raised or recessed) held within a framework of rails and stiles.



Paneled Shutter

A vertical wooden element, hinged to close over a window or door opening, composed of solid panels held within a framework of rails and stiles. Paneled shutters are designed to provide additional security at a ground-level opening.

Parapet	A low, horizontal wall at the edge of a roof.
Pavilion	A subsidiary portion of a monumental

A subsidiary portion of a monumental building, distinguished from the main mass by decoration or height.



Pediment	A crowning triangular element at the face of a roof gable or above a door opening.
Pendant	A hanging, ornamental architectural feature, especially when elaborately sculpted.
Pent Roof	A continuous, horizontal shed roof projecting from the wall between the first and second floor windows.
Pier	A square or rectangular masonry or wood post projecting less than a story above the ground that carries the weight of a structure down to the foundation.
Pilaster	A shallow engaged (not freestanding) column or pier.
Pitch	The degree of a roof's slope.
Plinth	The block at the bottom of a column base.
Pointing	The exposed joint work of masonry construction, decoratively finished (or "tooled") to be recessed behind the face of the masonry.
Pole Gutter	A gradually-sloping horizontal channel of metal-covered wood mounted on the lower portion of a roof to direct rainwater to the downspouts.



Porte Cochere	A covered area over a driveway at a building entrance. Also known as carriage porch.
Portico	A columned porch, especially at the main entrance to a Classical Revival style building.
Portland Cement	A strong, inflexible hydraulic cement used to bind mortar. Mortar or patching materials with a high Portland cement content should not be used on old buildings. (The Portland cement is harder than the masonry, an d can cause serious damage over annual freeze/thaw cycles.)
Preservation	The act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. (Secretary of the Interior's <i>Standards for the</i> <i>Treatment of Historic Properties</i> )
Pressed Tin	Decorative, as well as functional, metalwork made of molded thin sheets and used to sheath ceilings, roofs, bays, and cornices.
Primer	A base coat of paint; typically has more binder and less pigment than topcoat paint.
Purlin	A horizontal beam in a roof structure that supports the common rafters that typically spans between the principal rafters or parallel roof trusses.



Quoins	A vertical row of stones, wooden blocks, or brick pattern at the corners of a building.	Reconstruction	The act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site landscape building
Rail	A horizontal framing member of a paneled door or shutter.		structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location. (Secretary of the Interior's <i>Standards for the Treatment of</i> <i>Historic Properties</i> )
		Rehabilitation	The act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values. (Secretary of the Interior's <i>Standards for the Treatment of</i> <i>Historic Properties</i> )
		Restoration	The process of accurately taking a building's appearance back to a specific period of time by removing later work and by replacing missing earlier features to match the original.
		Return	The continuation of a molding, cornice, etc., in a different direction or on a perpendicular surface.
		Reveal	The side of an opening for a door, window, etc., between the frame and the outer surface of the wall.
		Ridge	The top horizontal member of a roof where the sloping surfaces meet.
E.		Riser	The vertical face of a step.
Raised Panel	A square or rectangular board of wood	Rising Damp	Moisture absorbed by masonry walls through capillary action from the soil below.
	which is beveled at the edges and held within a framework of a door, shutter, etc.	Rusticated	Roughening of stonework or CMU's to give greater articulation to each block.
Recessed Panel	A flat, square, or rectangular board of wood which is set back within the framework of a door, shutter, etc.	Sash	The frame of a window, into which glass is set.
		Sash Door	A door with glazing, as shown in the illustration to the right for <i>Sidelight</i> .

Sawtooth Shingling	A decorative pattern of wall shingles alternating long and short rectangular pieces of wood in staggered horizontal rows.
Scale	The relationship of building materials to each other, as well as a person's perception of the material's size.
Scored Stucco	Stucco that has been tooled with shallow grooves before drying to simulate blocks of stone.
Sheathing	Boards or other surfacing applied to a structural frame to facilitate weatherproofing and the installation of the finished surface.
Shed Roof	A shallow, single-sloped roof.
Shingle Exposure	The portion of a wall or roof shingle that can be seen after it is installed.
Shoring	Temporary structural supports to prevent the collapse of a building element during renovation.



Sidelight

A vertical, narrow window with fixed glass flanking a door.



Signage Band	A continuous, flat, horizontal area above the first floor designed to receive advertising on commercial buildings. This area is usually incorporated into the storefront cornice's entablature.
Sill	The horizontal member at the bottom of a door or window opening.
Six-over-Six Window	A double-hung window with six panes of glass in each sash. When the top sash is fixed, the six-over-six window is single-hung.



Soffit	The exposed underside of a cornice, eave, or other spanning element.
Spalling	The delaminating of a masonry surface from the effects of moisture infiltration and changing temperatures.
Spandrel Panel	The vertical area located between the head of the first floor window and the sill of the second floor window.
Spindle	A term for a turned baluster and other decorative, thin wooden elements cut on a lathe.



Splash Block	A stone or cast concrete block at the base of a downspout that directs rainwater away from the base of a building.
Standing Seam	On roofs, the joint between the vertical metal roofing strips which are folded together and left upright to prevent moisture infiltration at the seam.
Stile	A vertical framing member of a paneled door or shutter.
String Course	A projecting, horizontal molding separating parts of a wall surface, especially in masonry construction.
Surround	The decorative trim around a door or window opening.
Swag	A curved, foliated garland or draping cloth design used as an applied decorative treatment on flat vertical surfaces.
Terrace	A raised area or walkway adjacent to a house.
Threshold	The sill of an entrance door.
Tooling	Decorative grooves on wood or stone, or in mortar joints.
Tracery	Thin, intersecting lines of wood or metal creating a decorative pattern. Tracery is most commonly found on transom windows and fanlights.
Transom	A horizontal window above a door or window, usually rectangular in shape although an arched fanlight is also a form of transom.
Tread	The horizontal surface of a step.
Trim	The decorative as well as functional woodwork edging openings and covering joints of a finished facade.
Turned woodwork	Wooden elements cut on a lathe.



Turret	A small tower with a steep pointed roof, usually found at one corner of Queen Anne Style buildings.
Tuscan	One of the five classical orders of architecture, predominantly used to describe heavy, tapering columns with molded capitals but not bases.
Two-over-Two Window	A double-hung window with two panes of glass in each sash, also denoted as 2/2.
Urn	A large vase with a circular cross section, a footed base and sometimes a cover; typically set on a pedestal and used as an outdoor decorative feature.
Valley	The internal angle formed by the junction of two sloping sides of a roof.
Vapor Barrier	A thin metallic or plastic sheet combined with insulation or sheathing to prevent the passage of moisture through a wall, floor, or ceiling.



Veranda Another term for porch; a veranda typically extends along an entire side wall. Vernacular A regional adaptation of an architectural style or styles. Wash A slight slope of mortar on the top surface of a brick chimney or other masonry construction designed to shed water. Water Table The projecting decorative molding of a masonry wall at the point where the wall thickens, often just below the first floor joists. Weather-Stripping Interlocking strips of material, usually

metal, that help prevent the infiltration of air around an exterior



opening.

Widow's Walk

A decorative balustrade at the top of a hipped roof.



Wrap-Around Porch

A front porch which turns one or both of the building's corners to continue along the side.

Wrought Iron

Decorative metalwork that is hammered, bent, and twisted into shapes (rather than poured into molds like cast iron). Historically used for fencing and basement window grilles.



# Appendix B:

### **Additional Sources of Information**

#### **Local Organizations**

Joint Free Public Library of Morristown and Morris Township 1 Miller Road Morristown, NJ 07960 (973) 538-3473

This municipal library has a very comprehensive local history collection, a special section for historic preservation, and a knowledgeable, helpful staff. They are open seven days a week.

Morris County Trust for Historic Preservation 14 Oak Street Morristown, NJ 07960 (973) 267-4717

The Trust is one of two county-level non-profits in the state dedicated to preservation. They will provide help with all kinds of preservation problems, such as maintenance, Register listing, and local regulations. They keep a list of professionals and artisans in the field, hold easements, and take positions on preservation issues within and outside of the county. Available by phone midday, 5:00 – 7:00 p.m., evenings, and weekends.





#### **State Organizations**

Main Street New Jersey New Jersey Department of Community Affairs P.O. Box 811 Trenton, NJ 08625-0811 (609) 633-9769

Main Street New Jersey was established in 1989 to encourage and support the revitalization of downtowns throughout the state. Since 1990, Main Street New Jersey and the Department of Community Affairs have designated 26 municipalities state-wide as Main Street Communities.

Historic Preservation Office New Jersey Department of Environmental Protection P.O. Box 404 Trenton NJ 08625-0404 (609) 292-2023

Source of voluminous information on most preservation issues, including National Register nominations, investment tax credits, and preservation techniques. Both advice and literature are given freely, including copies of the excellent "Preservation Briefs" and "FYI" series.

Preservation New Jersey 18 West Lafayette Street Trenton, NJ 08608 (609) 392-6409

The only non-profit statewide membership organization, whose mission is "to preserve, protect, and promote New Jersey's historic places for the enjoyment and education of present and future generations...." Preservation New Jersey publishes a quarterly newsletter, "Preservation Perspectives," and an annual listing of the State's ten most endangered historic places.

#### **National & International Organizations**

The National Trust for Historic Preservation 1785 Massachusetts Avenue, NW Washington, DC 20036 (202) 673-4129

The National Trust started the National Main Street Center in 1980, and now assists with programs in 45 states. They print the bi-monthly "Historic Preservation" magazine and monthly "Preservation News." The Trust also publishes an annual list of endangered properties, sponsors an annual educational conference, and advocates for preservation issues throughout the country.

The National Trust for Historic Preservation (Regional Organization) 7 Fanueil Hall, Marketplace Boston, MA 02109 (800) 944-6847

The Trust's Regional Office provides technical information and advice.

The Association for Preservation Technology (International Organization) Box 8178 Fredericksburg, VA 22404-8178 (703) 373-1621

APT publishes the "Bulletin" and "Communique," which are distributed quarterly. APT also sponsors an annual conference focusing on the technical aspects of building preservation.

### **Appendix C: Bibliography**

#### **Reference Books and Articles**

Blumenson, John J.-G. *Identifying American Architecture.* 2nd ed. Nashville, TN: American Association for State and Local History, 1981.

Bucher, Ward, ed. *Dictionary of Building Preservation*. New York: John Wiley & Sons, Inc., Preservation Press, 1996.

FYI Publications. Series. Trenton, NJ: Historic Preservation Office, various dates.

Hand, Susanne C. *New Jersey Architecture*. New Jersey History Series, no.5. Trenton, NJ: New Jersey Historical Commission, Department of State, New Jersey History Series 5, 1995.

Harris, Cyril M. *Illustrated Dictionary of Historic Architecture*. New York: Dover Publications Inc., 1977.

Longstreth, Richard. *The Buildings of Main Street: A Guide to American Commercial Architecture*. Washington, DC: The Preservation Press of the National Trust for Historic Preservation, 1987.

McAlester, Virginia and Lee McAlester. A Field Guide to American Houses. New York: Knopf, 1984.

Preservation Briefs Series. Washington, DC: National Park Service, Technical Preservation Services Division, various dates.

Schoettle, B. Clarson. *Keeping Up Appearances: Storefront Guidelines*. Washington, DC: National Main Street Center, National Trust for Historic Preservation in the United States, 1983.



The Secretary of the Interior's Standards for the Treatment of Historic Properties. Washington, DC: U.S. Dept. of the Interior, National Park Service, Preservation Assistance Division, 1995.

Westfield Architects & Preservation Consultants. Design Guidelines: Main Street New Jersey. A Handbook for the Preservation and Improvement of New Jersey's Historic Commercial Architecture. Haddon Heights, NJ: Westfield Architects, 1994.

Westfield Architects & Preservation Consultants, and Pennoni Associates Inc., *West Collingswood Preservation Plan*. Haddon Heights, NJ: Westfield Architects, 1989.

Westfield, Margaret. "Downtown over Time — the Historical Evolution of Commercial Architecture." Paper presented at New Jersey's Annual Historic Preservation Conference, Englewood, NJ, April 1999.

Westfield, Margaret. "Preservation Problemshooting: Maintenance of Historic Buildings." Paper presented at the National Main Street Conferences, Boston, MA, April 2000, and Baltimore, MD, April 2005.

Wright, Kevin. Around the Green: Newton, New Jersey. Hamburg, NJ: Wilcox Press, 1991.

#### **Local History Resources**

Bertland, Dennis. *Historic Sites Survey of the Town of Morristown, New Jersey, Prepared for the Morris County Historical Society and the Town of Morristown,* Typescript. 1981.

Cavanaugh, Cam. In Lights and Shadows: Morristown in Three Centuries. Morristown, NJ: Joint Free Public Library of Morristown and Morris Township, December, 1994.

Duane, Kathy. Special Improvement District, Façade Design Guidelines. Town of Morristown, NJ, n.d.

Foster, Janet W., *Legacy through the Lens, A Study of Mendham Architecture.* Mendham, NJ: Mendham Free Public Library, 1986.

Harris, Marion O., Chairman, Morristown Historic Preservation Commission. Interview by Anahita Mantri on November 1, 2005.

History of Morris County New Jersey with Illustrations and Biographical Sketches of Prominent Citizens and Pioneers. New York: W. W. Munsell & Co., 1882. Reprint. Morristown: Morris County Historical Society, 1967.

Hock, Frank Marshall. "A Comparative Analysis of the Development of Single-Family Residential Architecture and Construction in Morristown, New Jersey Since 1715." Master's thesis, Newark College of Engineering, Newark, NJ, 1974.

#### http://www.morristown-nj.org/history.html,

Morristown Partnership and Historic Morris Visitors Center, as cited on October 20, 2005.

McMahon, Edward T. and Shelley S. Mastran. *Better Models for Development in Pennsylvania*. The Conservation Fund in partnership with Pennsylvania Department of Conservation and Natural Resources, April 2005. Rae, John Warden and John Warden Rae, Jr. Morristown's Forgotten Past: "The Gilded Age" The Story of a New Jersey Town, Once a Society Center for the Nation's Millionaires During the Gilded Age -1890-1929. Morristown, NJ: pvt. pub., 1979.

Red Bank River Center Design Manual. Red Bank, NJ: Borough of Red Bank, 2004.

Scherzer, Carl. "19th Century Morristown." Typescript. Morristown, NJ: Joint Free Public Library of Morristown and Morris Township, 1964.

Sherman, Andrew M. *Historic Morristown, New Jersey: The Story of its First Century*. Howard Publishing Co., 1905.

Wacker, Peter O. *The Musconetcong Valley of New Jersey, A Historical Geography*. New Brunswick, NJ:: Rutgers University Press, 1968.



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#### What Makes a Site Historic?

Labeling a building "historic" is not arbitrary. There are Federal standards to establish whether a site is historic. The evaluation is based on three factors: age, significance, integrity.

Age Usually, a building must be at least 50 years old to be considered for historic designation. Occasionally younger buildings are recognized if the significance is exceptionally high. For instance, the Seagram building in NYC, built in the 1970s, is widely seen to have unusual architectural distinction, and has been formally landmarked. The World Trade Center site will undoubtedly be designated for its significance alone.

Significance Why is a site important to the community? Did something important happen there, for instance a Native American encampment or the signing of a treaty? Is it a structure of architectural merit? Would excavation likely reveal information about the past that could not be found otherwise? Was someone of note in local, state, or national history associated with the building?

Integrity This is about what's left of original conditions. Replacement windows, repair with modern materials, recent additions that clash with or obscure historic architectural character — these can degrade a building's integrity. Disturbance and pillaging at an archaeological site may render it useless. Straightening and widening a historic road destroys its original alignments.

The decision to call a site historic balances these three factors: is it old enough; does it matter, and; does its significant character survive? The judgment requires technical experience, not just good intentions. It is not about sentiment or beauty, but about what should be protected for future generations to experience. The future of Morristown's heritage is determined by the actions of its present population. Once a building is demolished, it is lost forever.

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