

BOARD OF HISTORICAL ARCHITECTURAL REVIEW
TOWNSHIP OF SOLEBURY
BUCKS COUNTY, PENNSYLVANIA

SOLEBURY TOWNSHIP HISTORIC DISTRICTS

PART I – HISTORY & MAINTENANCE MANUAL

PART II – DESIGN GUIDELINES



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PART I – HISTORY AND MAINTENANCE

For

SOLEBURY TOWNSHIP HISTORIC DISTRICTS

A Guide for Maintaining and Rehabilitating
Buildings and Property in Solebury Township

Revised: July 2023

February 2007

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- Solebury Township Historical Society • The City of Gettysburg • Tutto Design •

INTRODUCTION

Dear Fellow Residents and Property Owners,

Solebury Township's Historic Architectural Review Board (HARB) has published Design Guidelines for use in reviewing requests from our residents and property owners, and for all residents to use in considering and designing changes to their property.

Solebury Township's HARB wishes to express our gratitude to the city of Gettysburg's HARB for giving us complete license to work with their existing published document. For too many years, our HARB has worked with an informal interpretation of the Secretary of the Interior's Standards for Rehabilitation. While often we got it right with the cooperation of the home owner, there were times when these Guidelines would have served us well in our recommendations to the Board of Supervisors.

Our recommendations presently affect the Historic Districts of Phillips Mill and Carversville, hence the focus of our Introduction. However, it is intended that these Guidelines will serve all Solebury homeowners as you plan improvements and/or changes, with the intent of respecting the historic integrity of your property and your neighborhood. It is also our intent that these Guidelines will encourage the remaining historic districts to join HARB. These Guidelines will not be static. They are meant to be a working document that will incorporate changes as needed.

We are so fortunate to live in an area rich in historic resources including houses, outbuildings, walls, and fences. These are the core of HARB's efforts. We still have some wonderful viewsapes thanks to the work of the Township's Land Preservation Committee and our residents who support their efforts. Preservation of all resources is instrumental to our continuing enjoyment of our Township.

We encourage all residents with questions or plans to speak with the HARB Administrator in the Township office prior to beginning your work. While we have included some information on local resources, additional references will become available on a regular basis, and the Administrator will keep you up to date on their availability. HARB looks forward to working with you on your upcoming projects.

Sincerely,

Solebury Township Historic Architectural Review Board



Figure 1 Solebury Township Building

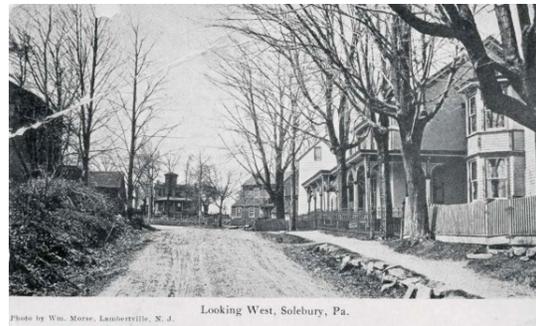


Figure 2 Solebury village, c. 1900

SOLEBURY TOWNSHIP ARCHITECTURAL HISTORY

In 2002, Solebury Township celebrated its 300th anniversary. While the footprint of Solebury remains basically its twenty-two original square miles (26.68 square miles of land/water area), it has changed considerably from the twenty-eight tracts of land that originally comprised the Township at its incorporation in 1702. At that time, there were just twenty-four pioneering landowners. In 2006, we had approximately 7,743 residents (2000 census) and 3,900-plus tax parcels.

While some descriptions of Solebury Township in earlier records are no longer discernible—those of meandering hills and vast fields—thanks to the land preservation efforts at work in the Township, presently over 5,000 preserved acres are now part of the Township’s legacy for future generations. The ultimate goal of the preservation effort is 7,000 acres that will constitute more than 40 per cent of the Township.

What does and will continue to be immediately recognizable from those early histories are the historic homes, barns, and landscapes along Township roads and villages. Stone is one of the primary elements of the Township’s beauty. There is one National Historic Landmark in Solebury - the Honey Hollow Watershed, dedicated in 1969. It is the first area in America to be treated by farmers as a watershed unit in the establishment of soil, water, and wildlife conservation practices. There are six historic districts in Solebury Township: Carversville, Centre Bridge, Cuttalossa Valley, Lumberville, Phillips Mill, and Upper Aquetong Valley. These “Guidelines” address only two of those districts, Carversville and Phillips Mill, that come under the Township’s Historic Architecture Review Board (HARB). It is hoped that through a majority vote of their residents, the other districts will come under HARB. However, all Solebury residents will find helpful guidance and practical assistance for preserving and maintaining their historic properties in these guidelines.

Solebury Township boundaries are Plumstead Township to the north, Buckingham Township to the west, Upper Makefield Township to the south and New Hope Borough and the Delaware River to the East. Buckingham and Solebury were originally one township. The year 1702 is the accepted date of the separation and incorporation for each. Historically, the area of Solebury Township was inhabited by the Turtle Tribe of the North American Algonquian Indians. Through purchase and treaty, English Quakers eventually became owners of the original twenty-eight tracts. The name Solebury seems to be derived from the English village of Soulbury in Buckinghamshire, England.

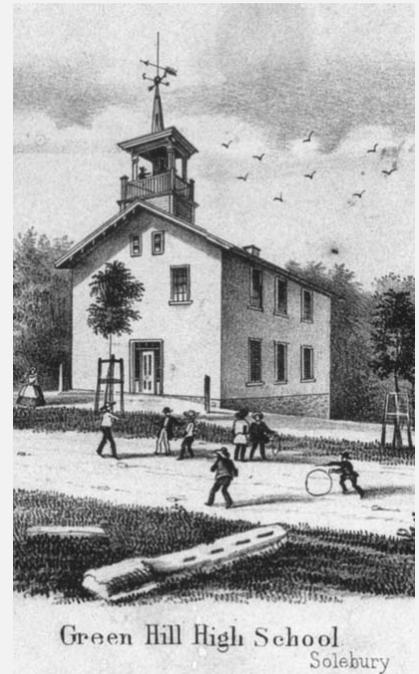


Figure 3 Green Hill High School, today a private residence.

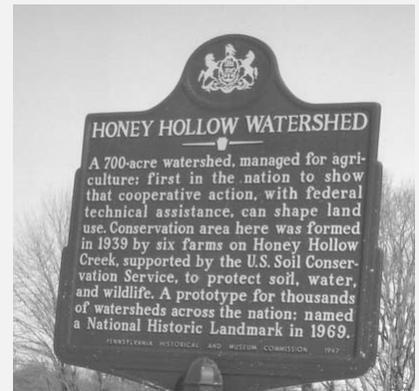


Figure 4 Honey Hollow Watershed

By 1800 there were 150 homesteads recorded in Solebury Township. Each homestead reflected the owners' English heritage, stone houses and stone and wood barns, simple yet elegant in their settings. The farmers were primarily involved in animal husbandry with subsistence farming to provide their families with daily needs. As more residents settled in the Township, the limestone belt that runs through the Township supplied building stone and mortar, and lime was roasted for agricultural purposes. Field stone was found in abundance, which made for the propensity of stone houses and barns. In fact, residents were so dedicated to the use of stone that when the one room school house was built at the corner of Upper York and Sukan Roads, the Solebury school board took the advice of Clyde Davis, a Township employee, and built it out of stone instead of brick to please the residents. That schoolhouse is the oldest schoolhouse in the Country that has been in continuous use since it was built. Various types of mills were built along the Township streams supplying grain, wood, and processes for wool, paper, linen and plaster.

With the completed Delaware Canal in 1832, coal and lumber from the Lehigh Valley were transported from Easton down to Bristol, Pennsylvania with as many as 3,000 trips a year. Obviously that commerce and communication along with the progress of road systems began to open Solebury Township to news, travelers and greater commerce. By 1891 residents could commute by railway from New Hope to Philadelphia albeit with many stops along the way. Philadelphia residents began to come to Solebury Township first as visitors or weekend farmers and eventually full time residents. The house known today as Coppege Cottage in Lumberville was owned by a succession of five Philadelphia clock makers in the 19th century.

Perhaps no resident had a greater impact on Solebury's early legacy than Samuel Ingham who was to become U.S. Secretary of the Treasury in 1829 and an early backer of the Delaware Canal. His interests and visitors certainly brought Solebury into the young nation's arena. Other residents who contributed to Solebury's early fame were Zebulon Pike after whom Pike's Peak was named and Eastburn Reeder whose husbandry interests led him to become Pennsylvania's first State Dairy and Food Commissioner.

Perhaps the most far-reaching fame came to Solebury through the artistic success of Martin Johnson Heade born in Lumberville in 1819. He traveled and painted internationally and was the recipient of many awards and honors during his lifetime. He was, until recently, not as well known locally as those artists constituting the Pennsylvania Impressionists, but Heade's recent fame, and fortune for those who own his paintings, exceeds the others. In a 1944 exhibition at the Museum of Modern Art, Heade's "Storm over



Figure 5 Solebury Friends Meetinghouse



Figure 6 An ivy-covered springhouse



Figure 7 Solebury open space property



Figure 8 Solebury Episcopal Chapel

Narragansett” caused his idyll reputation to soar and has continued so to this day. His paintings command well over one million dollars when one can be found.

Locally, and certainly in the eastern United States, many late 19th and early 20th century Solebury Township artists have stellar reputations. Most notable are Edward W. Redfield, William L. Lathrop, and Daniel Garber. They are part of the School of Pennsylvania Impressionists whose subjects came straight from the place, from the interaction of light with the land, stone buildings and with the faces well known and loved by these painters.

Perhaps the most enduring legacy of Solebury Township is its residents. Many have fought hard to keep Solebury Township from becoming over developed and, in the long run, they are winning most especially through land preservation. While development has come, it is tempered by the efforts of new residents to maintain their properties in keeping with what is here. We are wise to acknowledge the transitive nature of our Township and by due diligence on everyone’s part, the peace and beauty of what is today Solebury Township will endure.

Edited by John Touhey. The article above is a compilation of material culled from “Solebury Township” by John Richardson (1958), “Early Settlers of Solebury Township” by Eastburn Reeder (1971) and historical memorabilia collected by the editor over the last thirty years.



Figure 9 Cuttalossa Farm



Figure 10 William Lathrop's house in Phillips Mill



Figure 11 Solebury farm sign

CARVERSVILLE ARCHITECTURAL HISTORY

The village of Carversville is nestled against a geologic fault that roughly defines the northwest boundary of Solebury Township where it meets neighboring Plumstead Township. In the lower crevice of this fault runs the Paunacussing Creek, a strong stream draining the north corner of Buckingham Township and upper portions of Solebury. Its steady, vigorous movement, coupled with a drop-in elevation as the stream flows to the Delaware River two miles away, provided an excellent location for an early, significant, and continuous mill seat. Three main branches of the Paunacussing join near the center of the village, the location of a historic mill since the 1720s.

Early roads were laid out to reach Barcroft's Mill (later Pryor's Mill), in an area that now includes Sugan, Aquetong, and Stover's Mill roads. The land that comprised much of the village was owned by the mill proprietor. As was often the case, a village developed, primarily as housing for mill workers and other support labor. The Ellicott family, of Ellicott City, Maryland and Washington, D.C., made improvements to the mill and neighborhood in the late 18th century.

A public venue handbill (auction ad) from 1799 described a "Plantation... belonging to Thomas Ellicott containing 80 acres on which is erected a grist mill with two water wheels and four pairs of stones, one of which was French Burrs [round stones with burrs removed to cut the grain] the mill having the advantage of two never failing streams. On the tract... is a site for a good saw or oil, a dwelling house, a log tenement, a frame barn and an orchard..." In addition to the buildings on the land owned by the mill, other buildings began to be erected on properties adjacent to the mill complex, in order to benefit from the proximity to commerce. A competing mill was built downstream. From this early period (c. 1730 to c.1812), several small two-story or "bank" houses remain, as well as portions of the mill, and the Thomas Carey Farm and Kirk Homestead.

EARLY CARVERSVILLE

The breakup of large properties in the early 19th century generated a second period of growth for the village then known as Milton. Lots from the Robert Walker estate were sold by 1812, including the hotel and the tannery. In Isaac Pickering's petition for a tavern license in 1814, he described a flourishing village: "There are at Milton a grist mill, saw mill, oil mill, fulling mill, large factory of Cloathes, two tanyards... that the mills, fulling mills and factories are carried on with the greatest industry..." At the intersection of the roads from Doylestown to the river and from New Hope up to Pipersville were the store and blacksmith shop, which created the



Figure 12 Stone arch bridge, Carversville



Figure 13 1813 hotel and tavern with Stover additions



Figure 14 Paxson house circa 1910

local village square, an identifiable nucleus for the village. Gordon's Gazetteer of Pennsylvania described Milton in 1832 as having "6 or 8 houses, a tavern, a store and a grist mill." The Carver family, at this point, owned the store, hotel, tannery, mills, and factories in Milton, so when a request for a post office was made in 1833, the name "Carversville" was chosen. The village was shifting from an industrial to a more residential focus, and soon a church was added to the community.

With growth and prosperity came larger and more stylish buildings. One such example is the c. 1850 Isaac Stover Mansion built on the hill overlooking the mill after Stover purchased the property in 1844. This house combines a Federal form with modest Greek Revival elements such as a stucco finish and columned porticos.

Stover, a successful miller and businessman, also added a third floor and porch to the hotel by the 1850s, giving it a more exotic, slightly Italianate feeling. He also assisted with the construction of the stately Excelsior Normal Institute (since demolished) on the hillside overlooking the village in a more demonstrative Italianate style. Aside from these, the majority of the houses were small in scale and retained the conservative Georgian form, with only slight stylistic changes in doors and trim.

In 1854, Thomas Carver's estate was sold, providing an opportunity for growth in the village, especially along Aquetong Road. A few small frame houses were built before the Civil War, but the majority were built in the decades immediately following the war. Long hemlock boards from a second cutting of timber in northeastern Pennsylvania were rafted down the Delaware River to Lumberville, and transported the short distance to Carversville. Larger frame houses, some with plank wall construction, were built from the 1860s through the 1880s. Mark Hall was the favored town builder at that time. His homes, while still conservative by Victorian standards, are generous and gracious, often with cross gables and stylish cornices and porches. During this period, adobe brick was also used for several homes, as well as for additions to the hotel and Stover mansion. The S. Hersey Business Directory and Gazetteer from 1871 identifies two large stores, a hotel, coach, wheelwright and blacksmith and other shops besides about 30 dwelling houses..." The village population now included professionals, doctors, dentists, and entrepreneurs in addition to craftsmen; many properties were owned by women. The tannery was replaced by a large store, while other small businesses and shops were operated out of homes or frame wagon houses on the village lots.



Figure 15 Carversville farmhouse



Figure 16 Another early stone bank house



Figure 17 Building once used as a blacksmith shop



Figure 18 The Hough Mill

The general economic downturn of the late 19th century, coupled with diminishing interest in agriculture and a shift to large industrial and commercial towns served by railroads, was reflected in a near standstill in the growth of Carversville by the early 20th century. The wistful quiet of this country village began to attract individuals seeking weekend retreats and artists seeking the inspiration of the historic and natural surroundings. By the mid-20th century, several Cape Cod-style homes were built on the fringes of the village. The historic houses and outbuildings were repaired, and yards turned into terraced gardens. General merchandise stores closed, as did the auto repair and gas station, but the church, post office, general store and deli, and a fine restaurant in the hotel continue to provide vitality and a strong sense of community.

ARCHITECTURAL PERIODS

While very little remains from the pre-Revolutionary Georgian period of Carversville, the strong historical heritage and connection to the surrounding conservative English Quaker families set a tone for the architectural evolution of the village. Stylistically, the local building stock falls into roughly three periods. The first period extends from 1730 to 1812, with a Georgian-based vernacular fieldstone construction; it comprises about 18 percent of the village's current buildings. The second period, 1812 to 1860, extends up to the Civil War and accounts for about 25 percent of the building stock. It continues a modest Georgian form with a Federal interpretation in the small-scale frame houses, and Greek Revival and Italianate styles in the larger stone edifices.

The third and most prolific period accounts for 33 percent of the buildings. This period extends from 1860 to roughly 1895. A few larger frame houses based on the Georgian form, but with Italianate and Victorian embellishments, were interspersed in the village. These homes provide the rhythm, setback, and proportion to the Aquetong and Carversville Road streetscapes, and give Carversville its village character. While construction and changes have occurred since 1895, they do not contribute significantly to the visual definition of the village. Changes to the historic buildings have been modest, and houses constructed in the mid-20th century are located on the fringes of the village; they generally have a low profile and greater setback, which causes less impact on the streetscape.

C. 1730 THROUGH 1812

With the exception of one log house and several frame barns, the buildings of this period were built of native brown sandstone and shale from the immediate fields and quarries, in an exposed random pattern, often with defined corner quoins (dressed



Figure 19 Dr. Helmyer house



Figure 20 Detail of attic shutter from Shaw house

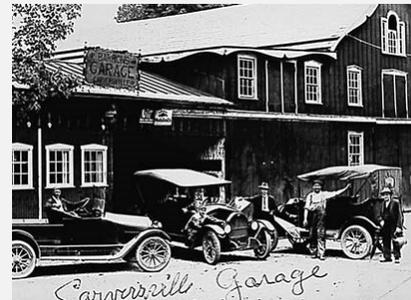


Figure 21 Carversville General Store

cut stones at the corners of buildings, placed in an alternating or stacked position) and flat jack arches (with zero or little rise) of the early Federal period. The houses had a vernacular Georgian form of two and a half stories with a standard gable roof and rectangular footprint, with the principal eave façade facing south or southeast. Except for the Pryor-Carey farmhouse, the houses were built into a sloping hillside or near the creek with exposed basement levels on one side and terraced yards.

The proportions of the homes were conservative, with a three-bay house being less than 30 feet wide and the one-room depth less than 20 feet. A “bay” describes the wall openings in vertical alignment on a house. When looking at a three-bay house, for example, it may have a doorway with two windows on the main floor and three windows on the upper floor. The 18-inch fieldstone wall depth further diminished the interior space. The windows from this period are generally six-over-six sash, with exceptions in the earliest homes, the log cabin, and the Pryor-Carey farmhouse. The second-floor windows are close to the cornice line and several homes have a distinctive recessed date panel between these windows - possibly a design characteristic of local builder Joseph Carver.

While the period style would feature a flat bargeboard, the decorative board located at the end of a gable, most of these homes received a slate roof and boxed cornice returns (the portion of the cornice that returns on the gable end of a house) in the late 19th or early 20th centuries. Earth-tone colors and paneled first floor shutters and doors can be found on several of the best-preserved examples.

C. 1812 THROUGH 1860

During this period, the village of Carversville took form, and the nucleus shifted from the mill to the hotel on the “square” at the intersection of the crossroads. This was an era of exploration of style and materials, and the spread of new ideas. The conservative notions of the local population, however, held many national trends at bay. The building form continued to be the basic rectangle, and the scale continued to be small, although timber framing replaced stone for the common houses. The standard gable roof continued to be used, now with orientation to the street and with a lower pitch. Stone was used for the hotel and for several large houses with stucco added.

Two homes from the 1840s, the Evans-Walton House and the Carver-Fenton House, show the Federal preference for a higher façade to create usable attic space with knee walls and low windows. The Stover Mansion, c. 1851, has an expanded façade, L-shaped floor plan, and hipped roof. Porticos or porches began to appear, as



Figure 22 Evans Walton house



Figure 23 Isaac Stover mansion 1850



Figure 24 Stone residence, Carversville



*Figure 25 Kirk homestead
with later additions*

seen on the Stover Mansion, with square columns showing classical influence.

The two-bay and even more popular three-bay width construction continued, but the four-bay house, with two front doors, made its appearance in this period. Houses had a simple boxed cornice, standard clapboards, traditional six-over-six sash windows with first floor paneled shutters and second floor louvered blinds and smaller chimneys of brick on the gable end interiors. Due to the terrain, some of the homes continued to have exposed basements, though now they were along the rear of the house, not a part of the front façade as with the first-generation homes.

C. 1860 THROUGH 1895

Carversville's vernacular style came to an expanded, elegant maturity during the Victorian period, mainly at the hands of local builder Mark Hall. While understanding the basic conservative tastes of his clients, Hall provided homes that combined formal and practical ideas with a concession to the prevailing period styles. He blended Victorian Gothic ideas with steeper pitched roofs and center cross gables, and the gable end chimneys became ceramic pots.

With the exception of the "L" plan used in Dr. Bishop's house, Hall's homes retained the traditional Georgian rectangle and three-bay façade, now expanded to nearly 35 feet in width. The interiors had a center hall with balustrade staircase; the formal parlors and spacious kitchens had built-in closets, and cisterns provided an interior water source. The Italianate style was introduced to the village just before the Civil War with the Excelsior Normal Institute, and modern changes to the hotel provided the decorative precedent for a number of the post-war homes, namely bracketed cornices mirrored on full-length front porches, round arched attic windows, and arched panels on the front doors with bold moldings.

Standard clapboard siding covered the long vertical hemlock boards of the balloon type construction. (The primary difference between platform and balloon framing is visible at the floor lines. The balloon wall studs extend from the sill of the first floor all the way to the top plate or end rafter of the second floor. The platform-framed wall, on the other hand, is complete for each floor). Modest window labels—decorative moldings around the windows—and louvered blinds accent the two-over-two Victorian sash windows. Decorative porch posts with spandrels (roughly triangular wall space between two adjacent arches), first floor bay windows, and wood block corner quoins, provided additional decorative embellishments.



Figure 26 Log cabin portion of Kirk homestead



Figure 27 Mark Hall's Cabinet Shop



Figure 28 Late 19th century store



Figure 29 Mid-19th century frame house

Properties owned by Isaac Stover and his son Henry were constructed or altered with a type of adobe brick or clay block material, and then a coat of exterior stucco was added. Such alterations include the Dr. Hellyer House and the Fluck House, both of which retained a severely conservative Federal appearance, as well as the third floor of the hotel and an addition to the Stover Mansion. The expansion to the Stover Mill Workers' House demonstrated the boxed cornice with returns which can also be seen on the gable fronted Mark Hall Cabinet Shop and the Firman, Paxson, and Hellyer Store. After a severe fire, the Stover Mill was rebuilt with a mansard roof, a rare example of the style in this conservative, gable-roofed community.

Because the roads followed the streams, the houses in the village were built close to the street, with minimal front yards defined by flagstone sidewalks, stone walls, and an occasional iron or picket fence. In spite of changes in house lots and "trading" side yards over the years, the rhythmic placement of houses is consistent and the roughly 90-year span in time of construction is nearly indiscernible. Many properties retain their two-story frame barns at the rear of the lots, along with occasional additional shops or outbuildings.

The barns are generally sided with vertical boards, painted red, with windows in the gables. Some have been converted to residential or alternative uses. Two barns were modified in the mid-20th century and sided with cedar shakes in a Colonial Revival New England tradition. A few houses and barns also received asbestos-shingle exteriors in the 20th century to mitigate deteriorated siding.

Carversville's sloping, occasionally rustic terrain, and the always-rushing Paunacussing Creek, combine with the narrow roads and bridges to create a unique setting for this beautifully preserved community.

Written by Kathryn Ann Auerbach



Figure 30 Porch detail from Lydia C. Fenton house



Figure 31 Tannery residence



Figure 32 Original door detail from tannery house

PHILLIPS MILL ARCHITECTURAL HISTORY

The hamlet of Phillips Mill is located beside Primrose Creek, near its confluence with the Delaware River two miles north of New Hope, in Solebury Township, Bucks County. The creek marks the eastern end of a significant band of limestone that extends inland for six miles, allowing local farms to prosper from naturally fertilized soils and providing important masonry products. In 1756, a grist mill, with mill dam and race, was established by Aaron Phillips. These were supplemented by the miller's house and other outbuildings. The mill seat was naturally successful, having the benefits of a well-watered stream close to the river and an abundant harvest from the limestone-fertilized farms. It preceded by thirty years the commercial mills of the Parry family in New Hope.

Although the mill continued to be operated by the Phillips family until 1889, the property size gradually diminished from 105 acres in the 18th century to only 27 acres at the time it left the family's ownership. The rest had been sold off for ancillary farm properties. With the arrival of the Delaware Division of the Pennsylvania Canal around 1830, the commercial operation could ship milled products to other locations, including Philadelphia. Old ledgers reveal transactions to commission merchants, dealers, and other businesses, in addition to the local farmers. The collection of buildings from this early period include the stone grist mill, stone miller's house, stone cooper shop, stone shed, partial stone piggery, stone stable, frame barn, and mill dam.

In the first half of the 19th century, the "West End Farm" was built on the western edge of this cluster of buildings. It included a frame farmhouse and large, frame-over-stone barn. Across the creek, where Phillips Mill Road joins River Road, another farmhouse and outbuildings were constructed, and by mid-century (certainly before 1864), a small, one-room stone schoolhouse was built nearby at Chapel and River Roads.

In 1896 Dr. George M. Marshall purchased the hamlet of 27 acres for his summer home. He encouraged his long-time friend William Lathrop, an artist from New York, to settle here, and sold him the miller's house and four acres in 1903. This pivotal action established the foundation of the Pennsylvania Impressionists and later the New Hope School of artists. Not only did Lathrop connect with nearby artists Edward Redfield in Center Bridge and Daniel Garber on Cuttalossa Road, but he also encouraged other artists and craftspeople to settle near the old mill hamlet.

Morgan Colt, who had a Renaissance range of talent in art, sculpture, ironwork, wood carving, and leather, bought and adapted the piggery as his residence. He then created a variety of diminutive



Figure 33 Phillips Mill Playhouse



Figure 34 Phillips Mill Inn



Figure 35 Phillips Mill cottage

buildings filled with visual and architectural references to Tudor and Gothic styles. The buildings were connected by paths that wound beside ponds and through gardens, and the entire grouping was surrounded by high masonry walls with Gothic reliefs and accented by decorative iron gates. Other artists soon resided in or nearby, including iron specialist Isaac Wallwork. Sunday afternoon gatherings on the Lathrop lawn encouraged the artists' community, and by 1929, they had purchased the obsolete mill to create a community association. The mill served as a predecessor to the New Hope School of Artists established several decades later. Plays, art exhibitions, and general gatherings at this location continue to this day, nurturing the heritage of the arts in this picturesque valley.

A second significant current of history occurred at Phillips Mill with the educational vision of Miss Karline Holmquist. An accomplished pianist and teacher, she visited Phillips Mill in 1910 for health reasons and by 1917 had established a progressive school in the old barn. The barn (now the Inn at Phillips Mill) was refitted with historic house parts from buildings being demolished in Philadelphia. Additionally, the barn was embellished in the Tudor style of Morgan Colt, with dark exposed beams, carvings, and a large fireplace over which is written in Latin, "This corner of the earth smiles upon thee above all others." She hired the artists to instruct her students. Eventually the school, by then an accredited college preparatory institution based on John Dewey's philosophy, moved across the road and creek to the large, Tudor-style home (now the Hotel du Village) of Dr. Marshall's sister. The anthropologist Margaret Mead was among the graduates of Miss Holmquist's school. In 1925, Dr. Marshall's own home, Lenteboden, was transformed into what became the foundation of the Solebury School, then a preparatory school for boys. Six years after Miss Holmquist's death in 1943, the two schools (Miss Holmquist's and Dr. Marshall's) joined at the current location, one mile inland on Phillips Mill Road. In 1921 the original, one-room schoolhouse at Chapel and River Roads was purchased by the Episcopal Diocese of Philadelphia and now serves the community as St. Phillips Chapel.

Phillips Mill's heritage of pioneering and successful adaptive use continued. The old barn-turned-school became the "Tea House" for Sunday-afternoon artists and visitors, and later evolved into the Inn at Phillips Mill, which has been in operation for more than 30 years. The second Holmquist School, former country house, and adjacent dormitories have become the restaurant and inn of Hotel du Village. Several homes were built in the first 40 years of the 20th century, nestled behind the Morgan Colt village or along the canal. The frame barn near Dr. Marshall's home was refitted as a residence. Marshall's own home, Lenteboden, became the home and business of Charles H. Mueller, a bulb specialist who maintains a spectacular display garden of thousands of spring flowering bulbs. A spirited fight to



Figure 36 Hotel du Village



Figure 37 A Phillips Mill residence



Figure 38 A Morgan Colt cottage



Figure 39 William Lathrop's house

preserve the open fields adjacent to the historic district was lost in the late 1980s, and contemporary suburban homes now fill the once rural landscape.

ARCHITECTURAL SUMMARY

The prevailing architectural theme of the Phillips Mill Historic District is the Arts and Crafts movement of the early 20th century, in this case primarily through adaptive use of 18th and 19th century mills, farmhouses, and outbuildings. The cluster of these traditional buildings is in close proximity to River Road as it makes several bends to follow and cross Primrose Creek.

The immediate impression of the village is created by the early fieldstone buildings, particularly the mill and miller's house on the north end of the district and the chapel (former schoolhouse) and "Stone Cottage" at the south end. It is a small district of roughly 30 buildings, equally distributed by number in each century, 18th through 20th. The lyrical character of the curving roads and vale of the Primrose Creek caused a casual and random growth pattern of the hamlet with varied building orientation and physical construction; no two buildings are similar. There is a unique blend of sizes, from tiny one-story cottages, outbuildings, and early garages to large additive farmhouses and the villa house for Hotel du Village, as well as the traditional, commodious 19th century frame-over-stone barn of West End Farm. While the most dominant building material is native fieldstone, there is a variety of building materials: dark exposed half-timbering, rough-cast stucco in pink, tan, and white, and frames painted white for houses, red for outbuildings. Glass is another visual factor, as many buildings received glass-enclosed porches and decorative, small-paned windows in the early 20th century. For the most part, Phillips Mill is also a pedestrian community, with a variety of paths that pass by walls, through gardens, and even along the creek, providing a striking contrast to the automobiles rushing past on nearby roads.

Written by Kathryn Ann Auerbach



Figure 40 William Lathrop's residence outbuilding



Figure 41 William Lathrop's cottage



Figure 42 William Lathrop's cottage

Why Have Design Guidelines?

Older buildings were not constructed the way buildings are today, and some contemporary methods for dealing with modern buildings can damage or otherwise compromise historic buildings.

Unfortunately, this information isn't always common knowledge. As a result, unregulated construction activity can ruin the most significant features of our historic buildings and the most valued qualities of our historic community, simply because people are unaware that different—often better—methods exist for dealing with their buildings. Design guidelines can prevent this hasty and thoughtless destruction and alteration of historic structures by identifying significant buildings and features, outlining preferred options, and specifying appropriate treatments. By presenting this information along with a wealth of practical advice, these Design Guidelines act as a standard to be followed in the review process. As such, it is valuable to Solebury Township, to the Historical Architectural Review Board, and to property owners.

Final responsibility for maintaining buildings and planning for their long-term survival rests with the individual property owner, and the process of design review works best with the owner's active and early participation.

Design guidelines can be useful tools for achieving creative solutions that allow the modern use of historic buildings. But beyond this immediate goal, the use of design guidelines can also help protect property values and quality of life, and can help ensure the livability of our community for generations to come.

The Big Picture

The character and appearance of a community demonstrate the values and attitudes of its residents. A community's appreciation of its heritage is demonstrated through its attitude toward historic preservation.

In 1985, due to the efforts of Carversville and Phillips Mill preservation organizations, Solebury Township officially recognized the value of its historic buildings and the need for their protection with the adoption of the Solebury Township Historic District Ordinance. To carry out its goal, the Ordinance established a Historic Architectural Review Board and a process for design review. Carversville and Phillips Mill were the first districts where residents voted to have their properties come under HARB. Residents of the remaining districts are encouraged to consider adopting HARB. Contact the HARB Administrator for guidance at (215) 297-5656.

Using Solebury Township's Design Guidelines

These Design Guidelines are a **tool**. WHO IS IT

FOR?

- Property Owners
- Design Professionals
- Contractors
- HARB
- Township Board of Supervisors

WHAT DOES IT DO?

It helps manage change and protect historic and architectural resources in Solebury Township's Historic Districts.

HOW DOES IT WORK?

- These guidelines are not meant to be rigid restrictions. They are meant to be used as guiding principles that, when followed, will result in the sound preservation of Solebury's historic buildings.
- As a property owner, you are encouraged to review this manual when **planning** changes to your property. Early consultation with HARB will provide for the most flexibility in planning your project.

WHAT'S IN IT?

1. **Architectural Histories of Carversville and Phillips Mill**

Read the histories (they precede this section), then go outside and look closely at your building. Try to identify its style, its period of construction, and its important features. If you get stuck, the township's HARB Administrator can help.

2. **A Maintenance Checklist** Routine maintenance is the key to extending the life of your building. Review the chapter (it's short!), then take a copy of the checklist outside to inspect your building. Don't wait - you can catch problems before they start.

3. **Information Arranged by Building Part** Most of the information in this booklet is divided into chapters arranged by building part. You'll find chapters on walls, roofs, windows and doors, porches, and paint. There are also chapters on additions, new construction, and demolition, as well as on utilities and accessibility. Be sure to read the chapters that cover the types of projects you're planning. For example, if you've been thinking that your porch needs some work, go to the porch chapter. All of the

Working With HARB

The Secretary of the Interior's Standards for Rehabilitation

The guidelines listed below were developed by the U.S. Department of the Interior. They are accepted nationwide as the standard for rehabilitating historic buildings, and are used by the HARB of Solebury Township.

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historic development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match

chapters cover important information, so you'll want to read them, too.

4. **More Help:** Turn to the Appendices at the end of this book for definitions of technical terms and for lists of additional publications and organizations that can help you with your projects.

WHAT IS HARB?

HARB is an advisory body created by state and local laws and appointed by Solebury Township's Board of Supervisors. It is composed of at least five members including an architect, a licensed real estate broker, the township's Building Inspector, a qualified individual from each historic district, appointed as each district is placed under this Ordinance, and such other qualified individuals as the Board wishes to appoint. HARB'S main responsibility is the review of all proposals for new construction and all changes to the exteriors of buildings located in the appointed historic districts, presently Carversville and Phillips Mill. HARB reviews this work to protect the architectural and historical character that makes these districts unique, which in turn contributes significantly to the quality of life in Solebury Township.

HOW DOES HARB MAKE ITS DECISIONS?

Prior to the regularly scheduled HARB meeting, HARB members review each application. HARB assesses the architectural and historical significance of the property, and considers the effect of the proposal on the overall district, on the adjacent road, and on the individual building and its component features. To help make its decision, HARB applies the [History & Maintenance Manual](#) (See Page 6), [Design Guidelines](#) (See Page 95) and the [Secretary of the Interior's Standards for Rehabilitation](#) (See sidebar or Page 183). These guidelines were developed by the United States Department of the Interior following several decades of preservation activity. They are accepted as the national standard for rehabilitating historic buildings.

In determining the compatibility of the proposed project, HARB also considers a number of issues specifically identified in Solebury Township's Historic District Ordinance. This Design Guidelines clarify these matters and provide information in greater detail than are given in the ordinance. Consequently, this Design Guidelines is an important tool that HARB can use in its decision-making process.

Working With HARB

The Secretary of the Interior's Standards for Rehabilitation

the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

After HARB has considered all of these materials and issues, it votes on the proposal and sends its recommendation to the Board of Supervisors. The Board of Supervisors makes the final decision on the application, using the same information as HARB in its determination.

WHAT PROJECTS DOES HARB REVIEW?

HARB reviews any projects, including alterations, additions, new construction, and demolition, that can be seen from a public road, alley, or other public space. Some of the typical projects that HARB reviews are listed below. Please note that this list is not all-inclusive.

- Additions
- Alterations
- Awning installation and changes
- Cleaning exterior surfaces with abrasive methods
- Changes to colors of permanent building features (roofs, facades, etc.)
- Cornice changes
- Demolition
- Door changes
- Fences
- Lighting (Exterior)
- Masonry work
- Materials replacement
- Mechanical Placement (e.g. Generators/HVAC)
- Moving of buildings
- New construction
- Painting
- Parking areas
- Porches
- Reconstruction
- Removal of architectural details or ornamentation
- Renovation (exteriors)
- Restoration
- Roofing
- Siding
- Sign design, installation and changes
- Skylights
- Solar Panels
- Stairs (exterior)
- Storm doors and storm windows
- Window changes

Working With HARB

CHANGES WITHOUT APPROVAL

If a property owner initiates work without a building permit and Certificate of Appropriateness, a stop work order may be issued and the owner may be required to pay a fine if requirements are not met.

HARB DOES NOT REVIEW:

- Interior work
- Regular maintenance that does not require the replacement or change of materials
- Change in use

HOW CAN HARB HELP PROPERTY OWNERS?

Because HARB members have specific expertise and interest in issues related to old buildings, HARB can often come up with options for treating properties that owners may not have considered. HARB may also be able to provide property owners with suggestions for treatments that cost less and make their properties look better.

Certificates of Appropriateness

A Certificate of Appropriateness is a permit recommended by HARB and approved and issued by the Board of Supervisors. It certifies that a proposed change is appropriate to the character of a building in the historic district and to the historic district as a whole.

OBTAINING A CERTIFICATE OF APPROPRIATENESS

The process for obtaining a Certificate of Appropriateness is a simple one. It begins when a property owner in an appointed district submits a completed application for a Certificate of Appropriateness. An application can be obtained from the HARB Administrator whose office is on the main floor of the Township Building or online from the [Township website](#). Complete the application and, depending on the type of work you are proposing, include all materials that are requested such as photographs, professional drawings, elevations and/or material samples with your application. The HARB administrator will help you determine what is required and your filing dates. The filing deadline for the completed application and the requested number of copies of ALL the required material is not less than thirty (30) calendar days prior to the HARB meeting at which the application will be discussed. (HARB meets on the first Monday of each month.) The Certificate process is summarized in the flowchart on the next page. The flowchart also summarizes the Replacement-Repair In-Kind process as well for projects that do not require a full HARB application and review.

HOW CAN HARB HELP PROPERTY OWNERS

Because HARB members have specific expertise and interest in issues related to old buildings, HARB can often come up with options for treating properties that owners may not have considered. They may also be able to provide property owners with suggestions for treatments that cost less and make their properties look better.

Working With HARB

OTHER REGULATIONS

In addition to needing a Certificate of Appropriateness for work in the historic districts of Phillips Mill and Carversville, properties are also subject to the regulations of Solebury Township's Zoning Ordinance, Sign Ordinance, and Building Codes. Construction in the township also requires a building permit. For more information, call (215) 297-5656.

WORKING WITH CONTRACTORS

Working with contractors can be both frustrating and rewarding. If you choose to use a contractor rather than undertaking your project yourself, we suggest you consider using a contractor who has successfully completed projects similar to yours and one who has experience with old buildings. If a contractor tells you it is impossible to replace historic materials in kind or that your old building can't be saved, get a second opinion. Check references and inspect completed projects before choosing your contractor. Get at least three detailed estimates. Your best defense against shabby and inappropriate work is knowledge. Learn everything you can about work to be done, even if you won't be doing the work yourself, then regularly monitor the work as it progresses. The information in these guidelines and the sources listed in the glossary can help you considerably.

START
Is the renovation an in-kind repair or replacement, where the materials used will be exactly the same as the original including, but not limited to: appearance, material, size, arrangement, proportion, dimension, color, and texture?

NO – Full HARB Application & Review Process

YES – Repair or Replacement in Kind (RRIK) Application

Applicant obtains full HARB application form from Township office or website and submits completed application and fee to Township for review

Applicant submits 1 signed copy of RRIK application, check-list items (if required), and fee to Township

HARB Administrator determines whether or not application requires HARB approval

Within 5 days HARB administration and 2 HARB board designees will review RRIK application.

HARB APPROVAL REQUIRED
Applicant attends HARB meeting to discuss application

HARB APPROVAL NOT REQUIRED
Applicant proceeds to the building permit process

If approved for RRIK approval, and no building permit is required, applicant can proceed with work, to be completed in 180 days

If not approved by HARB designees via RRIK, applicant must apply through the full HARB certification process (go to **Full HARB Application & Review Process** at top left of chart)

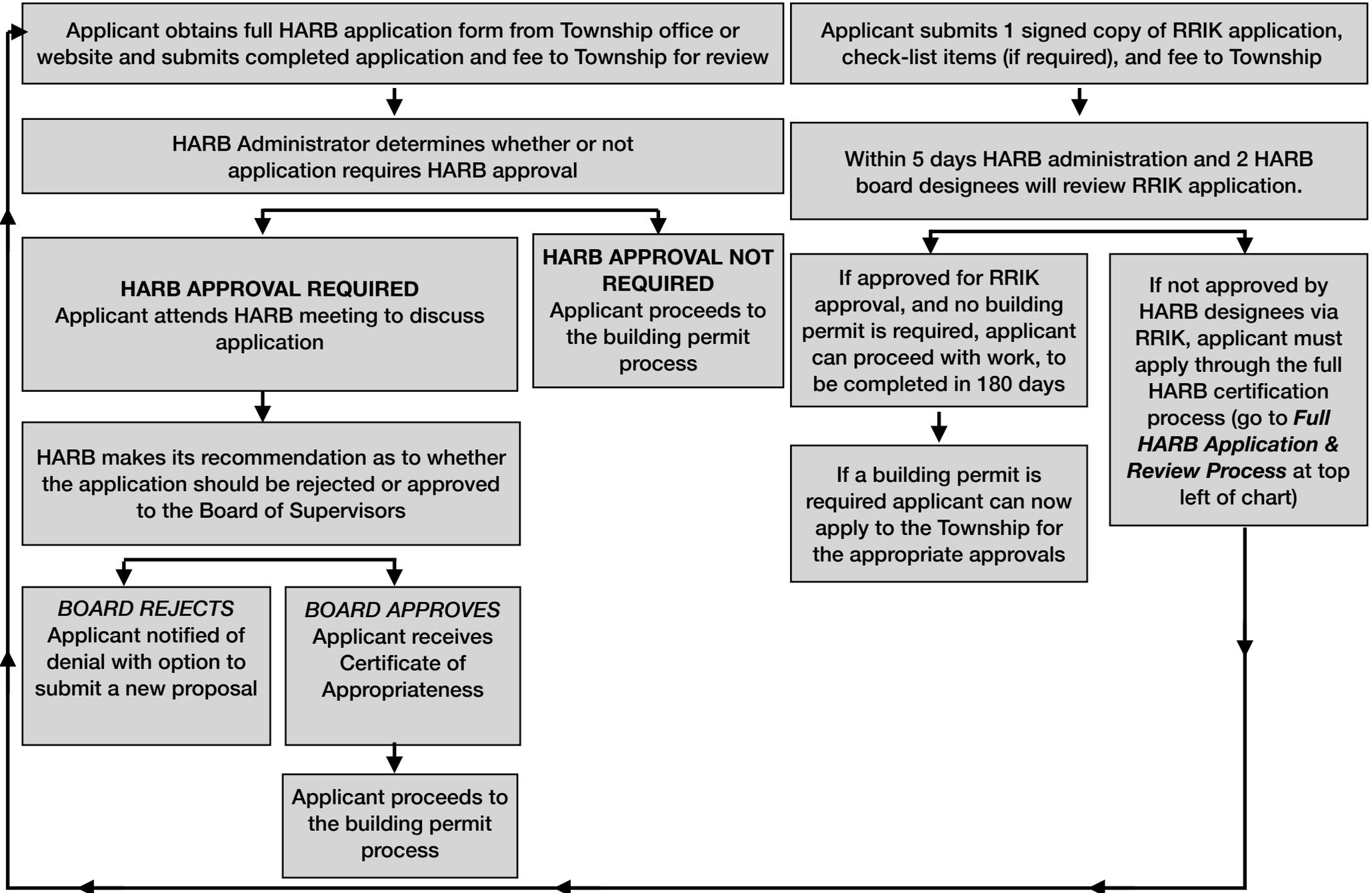
HARB makes its recommendation as to whether the application should be rejected or approved to the Board of Supervisors

If a building permit is required applicant can now apply to the Township for the appropriate approvals

BOARD REJECTS
Applicant notified of denial with option to submit a new proposal

BOARD APPROVES
Applicant receives Certificate of Appropriateness

Applicant proceeds to the building permit process



BUILDING MAINTENANCE

Applicant Revises Proposal



Figure 43 *A well preserved Solebury barn*

Maintaining Your Building

All Solebury Township structures are made of building materials that deteriorate over time - a long-term process caused by the effects of rain, wind, sunlight, and temperature changes, by chemicals in the atmosphere, and by insects, birds, rodents, and vegetation. Degrees of deterioration vary, and not all deterioration requires replacement of historic material. Historic structures have survived in Solebury Township for decades, and with proper treatment, they can continue to survive for decades more - in many cases lasting longer than modern buildings.

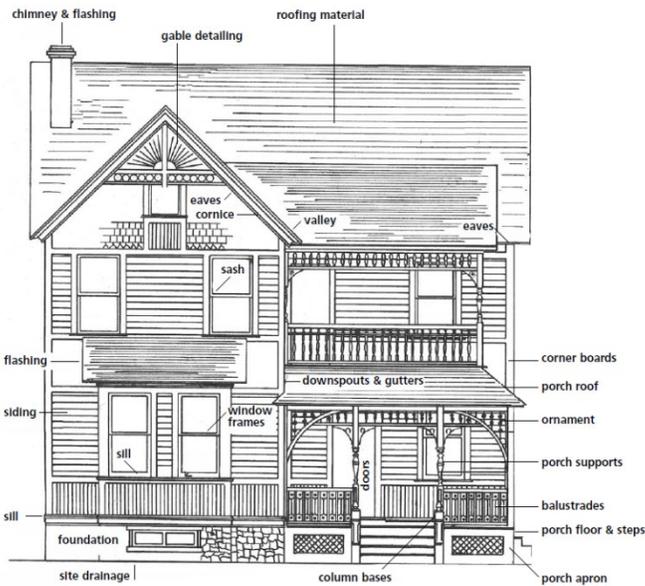


Figure 44 *Typical Areas that Require Maintenance in a Wood Frame House*

Preventive Maintenance

The key to the survival of the buildings of Solebury Township - old or new - is PERIODIC INSPECTION followed by REGULAR MAINTENANCE.

Many property owners perform maintenance only after something fails. This approach offers little protection for the building. Periodic inspection is designed to identify problems before they cause significant damage. This is followed by scheduled regular maintenance that will stop minor deterioration that has already begun and, in the long run, will provide the easiest and least expensive way to maintain the appearance and overall physical condition of your building.

The checklist in this section can help record the condition of your building and keep track of maintenance tasks as they are performed. This checklist is only meant as an example - you may develop one more appropriate for your property.

It is best to perform your inspection during a moderate rainfall; this allows for the best assessment of your roof and overall drainage systems. Binoculars can assist in evaluating parts of your house that are out of reach. A thorough inspection of the interior is also recommended. This is particularly true of the roof, where a leak identified in the attic can help pinpoint the location of failing exterior roof materials.

Throughout your house, visible damage in one area can be caused by a problem originating somewhere else - so look carefully. And REMEMBER: Although repairing problems yourself may be less expensive, it is usually best to seek professional assistance for major maintenance and rehabilitation work.

Safety First

Maintaining and rehabilitating buildings can be enjoyable and rewarding. But safety precautions should always be taken with all tools, materials, and processes used. It is always wise to carefully read all manufacturers' directions and to consult a professional on work that is unfamiliar. In addition, work on old buildings can bring asbestos and lead to the surface. Because these materials can cause health problems, it is a good idea to be familiar with them before beginning your maintenance or rehabilitation projects.

Repair or Replacing with In-Kind Materials or Colors?

Reference the [Design Guidelines Repairs and Replacement In-Kind section](#) on page 120.

Preventive and Cyclical Maintenance Checklist

Perform this maintenance check once each year, preferable during a moderate rainfall

What to Look For	Estimated Life Span & Repairs Required
<p style="text-align: center;">Roof</p> <p>Materials: Warping, sever wear, cracking, lumps, curling, decay, splitting, rusting, loose pieces, missing pieces, broken pieces, thin material</p> <p>Structure: Is the roof level, or does it sag?</p> <p>Roof flashing, gutters, downspouts: Rusting, paint loss, sagging, missing, or torn pieces, blockages, poor drainage</p> <p>Decorative elements (finials, cresting, etc.): Loose pieces, rust, missing pieces, deteriorated cornice</p> <p>Chimney and parapet: Is the chimney sagging, leaning, or bowing? Are the mortar joints tight? Is the chimney cap rusting or missing? Are bricks loose or missing?</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Metal roofing; repair and paint every 5-10 years <input type="checkbox"/> Re-secure, reattach, replace loose or missing pieces <input type="checkbox"/> Check rafters for deterioration, moisture penetration <input type="checkbox"/> A dry properly maintained roof structure should last indefinitely <input type="checkbox"/> Re-nail and/or add gutter hangers as necessary <input type="checkbox"/> Clean gutters in the spring and fall <input type="checkbox"/> Check elbows for packed material, caulk cracks, remove rust and repaint. Repair holes with roofing cement, solder, caulk, etc. <input type="checkbox"/> Repair and repaint elements every 5-10 years <input type="checkbox"/> Check for moisture infiltration <input type="checkbox"/> Pointing should last 50 years or more <input type="checkbox"/> Repointing required periodically in limited areas
<p style="text-align: center;">Exterior Walls</p> <p>Structure: Are the walls leaning, bowing, or bulging? Are cracks evident? Are the door and window openings square, with no apparent separations?</p> <p>Materials: Is the surface of masonry or stucco flaking, crumbling, or are units missing? Is the mortar loose, crumbling? Is the wood siding cracked, loose, rotted, or split? Do courses of siding appear straight or wavy? Is cast iron or pressed metal rusting, pitted, or missing? Are the walls stained? Is paint peeling, cracking, blistering, or chalking?</p> <p>Porch floors: Cracks, splits, loose boards, missing boards, rot</p> <p>Decorative elements: Peeling paint, cracks, loose pieces</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Dry, properly maintained wall structure should last indefinitely <input type="checkbox"/> Check foundation for settling <input type="checkbox"/> Masonry units can last for centuries with proper maintenance <input type="checkbox"/> Address moisture problems promptly <input type="checkbox"/> Pointing should last 50 years or more <input type="checkbox"/> Masonry may require periodic repointing in limited areas <input type="checkbox"/> Check for moisture infiltration <input type="checkbox"/> May require periodic reattachment, partial replacement <input type="checkbox"/> Work to limit moisture infiltration <input type="checkbox"/> Painted surfaces may require repainting every 5-10 years <input type="checkbox"/> Carefully clean masonry only when necessary as part of stabilization work <input type="checkbox"/> Paint previously painted masonry surfaces approximately every 10 years <input type="checkbox"/> Repaint wood surfaces every 5-8 years <input type="checkbox"/> Wood floor boards should last 50 years or more <input type="checkbox"/> Paint every 5-8 years

Preventive and Cyclical Maintenance Checklist

The primary objective of building maintenance is the elimination of openings that allow water to penetrate the building. Proper ventilation is also required

What to Look For	Estimated Life Span & Repairs Required
<p style="text-align: center;">Windows and Doors</p> <p>Operation: Do windows and doors open and close smoothly?</p> <p>Glass: Is the glass broken? Is the glazing secure? Do the glass panes fit securely? Are the stops and putty secure?</p> <p>Frames, etc.: Do the frame, muntins, sash, and door show signs of rust, rot, or insect damage? Is the threshold rotted? Are there open joints around the frames/trim?</p> <p>Hardware: Is the hardware operational and in good repair?</p> <p>Weatherization: Is the weather-stripping in good repair? Do storm windows fit tightly? Are the screens damaged?</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Windows should last indefinitely with proper maintenance <input type="checkbox"/> Doors, properly treated, should last indefinitely <input type="checkbox"/> Check for settlement <input type="checkbox"/> Repaint every 5 to 8 years, as necessary depending on weathering <input type="checkbox"/> Excessive paint buildup can cause windows and doors to “stick” <input type="checkbox"/> Window glass should last indefinitely <input type="checkbox"/> Repair broken glass immediately to guard against water infiltration <input type="checkbox"/> Check for water infiltration <input type="checkbox"/> Paint every 5 to 8 years, depending on weathering <input type="checkbox"/> Perform periodic repairs and limited parts replacement as required <input type="checkbox"/> The sill may require repair/replacement before other frame members <input type="checkbox"/> Check for water penetration <input type="checkbox"/> Threshold may require repair/replacement before other elements <input type="checkbox"/> Check for settlement <input type="checkbox"/> Caulk as necessary <input type="checkbox"/> Hardware, properly treated, should last indefinitely <input type="checkbox"/> Sash cords may require replacement <input type="checkbox"/> Putty should last 10 to 15 years <input type="checkbox"/> Caulking should last 15 to 20 years <input type="checkbox"/> Periodic repairs to weather-stripping, caulking, and putty may be necessary <input type="checkbox"/> Clean and mend screens and storm windows annually
<p style="text-align: center;">Exterior Features</p> <p>Exterior Elements: Are porches, stairs, railings, cornices, brackets, and other exterior features in good repair? Are elements missing?</p> <p>Paint: Is the paint cracked, faded, or peeling?</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Guard against water infiltration <input type="checkbox"/> Repaint every 5 to 10 years, depending on surface and conditions
<p style="text-align: center;">Foundation</p> <p>Masonry: Does water drain away from the foundation? Is masonry flaking, crumbling, spalling, cracking? Is masonry loose or missing? Is the mortar secure?</p> <p>Structure: Is the wall bulging or bowing?</p> <p>Vegetation: Are algae, moss, vines growing on the foundation?</p> <p>Water Control: Do downspouts have splash blocks?</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Properly maintained masonry should last indefinitely <input type="checkbox"/> Guard against water infiltration <input type="checkbox"/> Pointing should last 50 years or more <input type="checkbox"/> Repointing may be required periodically in limited areas, or following water-related repairs <input type="checkbox"/> Check for settlement <input type="checkbox"/> Remove vegetation as required and sources of excess of moisture <input type="checkbox"/> Check for movement; replace as necessary <input type="checkbox"/> Check that drainage is away from building

The Most Powerful Force of Deterioration Against Your Building is Water

Water can cause wood to rot, bricks and stones to crumble and fall, and paint to blister and peel. The information that follows can help identify some of the causes of moisture problems in buildings, which is the first step to reducing moisture-related damage. (For more information, refer to [Wood Walls](#) on Page 32, [Masonry Walls](#) on Page 35, and [Exterior Color and Paint](#) on Page 66.)

You probably have a moisture problem if you see:

- Bricks or stones with surface layers falling off
- Bricks or stones falling from the wall
- A masonry wall that is covered with plant growth
- A spotty white haze on brick or stone (efflorescence)
- A painted surface that is peeling down to bare wood
- Paint that is blistering
- Paint that is covered with mildew
- Damage to interior floors, plaster, drywall, or paint
- Increased interior relative humidity
- Moss or plant growth on shingle roofs

Where does excess moisture come from?

- Leaking or inadequate gutters, downspouts, flashing
- Missing or damaged shingles or other roof materials
- Defective caulking, sealants, and/or expansion joints
- Damaged masonry, for example, from sandblasting
- Missing or damaged wall material (like cracks in siding)
- Inadequately treated walls (like unpainted siding)
- Faulty mortar joints
- The growth of ivy or other vegetation
- Poor drainage at the foundation
- Rising damp (suction pulls groundwater up through a masonry wall)
- Insufficient ventilation of interior moisture

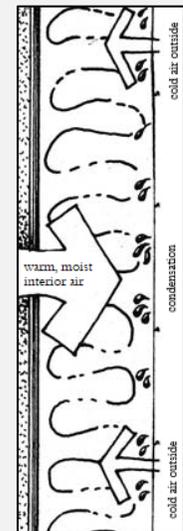
Possible treatments to guard against moisture:

- Ensure proper drainage away from building
- Treat new and replacement wood with a preservative that kills fungi before painting.
- Use marine epoxy products for minor deterioration. They saturate the wood, arrest the rot, and fill all damaged areas.
- Consider damp proof courses and below grade water-proofing with the assistance of a professional.

Water and Your Building

How Insulation Can Add Moisture to Your Building

- In cold weather, the air inside your home is warm and moist. It tends to travel through the exterior walls of your house to the cold outside. As it travels to the cold air, it turns to water in the form of condensation.
- When insulation is installed without a barrier, condensation remains in the cavity of the wall where it can deteriorate cellulose insulation, wall structure, and wall coverings, including exterior siding and paint, and interior paint and plaster.
- The same principle holds true for the floors of unheated attics, where the vapor barrier should be placed down (closest to the heated ceiling below).
- The same holds true for unheated basement or crawl space ceilings, where the vapor barrier should be placed up (closest to the heated floor above).



For additional ways to reduce moisture, see the information on excess moisture in the [Exterior Color and Paint](#) chapter (page 66) of these guidelines.

REHABILITATION GUIDELINES



Figure 45 Example of a property not beyond rehabilitation



Figure 46 Sgan Road residence using wooden walls



Figure 47 Solebury Farm



Figure 48 Solebury Farm

Wooden Walls

Exterior Walls of Wood

Wood is a surprisingly durable material. Properly maintained, it can last for centuries. But it does have enemies: water, fungus, and insects can dramatically shorten the life of wood.

Wood is used in many forms on the exterior of buildings in Solebury Township - in clapboards, shingles, ornament, and trim - and these elements contribute significantly to a building's character. They also protect the frame of the structure from the weather, which extends the life of the building. Consequently, these elements should be protected so that they may continue to contribute to the beauty and integrity of the building for generations to come.

One of the most common projects encountered in historic building rehabilitation in Solebury Township is the maintenance and repair of wooden siding. Options for dealing with these projects are outlined on the following pages.

Treating Wood Deterioration

Water infiltration, poor maintenance, and the lack or improper use of paint can lead to decaying wood and loose, cracked, and missing siding and other wooden elements. The options listed below pertain to all wood siding, shingles, ornament and trim.

OPTIONS:

FIRST CHOICE

Repair damaged wooden siding by reinforcing, patching or piecing. Repair simple cracks and splits with strong exterior wood glue. Warping may be repaired by careful, slow, and well-placed nailing or drilling.

SECOND CHOICE

Repair the pieces of wood that can be repaired; replace the pieces that are too deteriorated for repair with new wood of the same size, profile and character as that of the historic wood. Putty or wood filler should be used to smooth out the seams between old and new wood.

THIRD CHOICE

When deterioration is too severe or extensive, replace all deteriorated wood with new wood of the same size, profile and character as that of the historic wood. Take a sample of your siding or other wooden element to the lumber yard to get a close match.

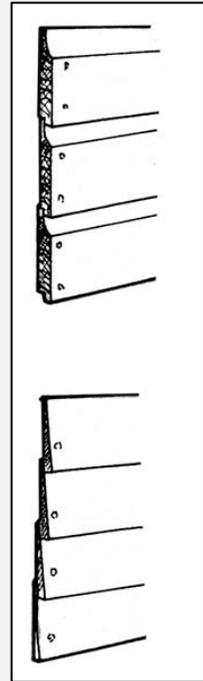
PRIORITIES FOR WOOD IN SOLEBURY TOWNSHIP:

- Retain, to the greatest extent possible, remaining wood clapboards, wooden shingles, and other historic wood materials.
- Maintain wooden exterior elements with hand-scraping, hand sanding, and repainting
- Conduct regular inspections on wooden exterior elements.
- Paint wood elements that were historically painted. Do not leave these surfaces unpainted; do not treat with a “natural” finish. Treated wood should be painted following the required period of weathering.

Types of Wood Siding

In Solebury Township the most common types of siding are drop siding and clapboards.

Drop siding, also called German siding (pictured at right), is composed of interlocking horizontal panels. Each panel has a flat surface with a rounded channel at the top.



Clapboard (pictured at right), also called bevel siding, lap siding, and weatherboard, is composed of single boards, tapered from the top to the bottom, and nailed in overlapping fashion. Boards are typically about 4” wide and the overlap produces a distinctive shadow effect that has not been successfully reproduced by artificial siding.



Dealing with Rotten Wood

Most wood deterioration is caused by fungi that thrive if given enough water and suitable temperatures. The prevention of wood decay begins with the elimination of excessive moisture and the use of wood preservatives that act to poison the “food” needed by the fungi to survive.

THE ICE PICK TEST

To determine if your wood really is rotten, perform this test:

1. With gentle hand pressure, push an ice pick into the surface of the wood that you think may be rotted. If easy hand pressure pushes the pick into the wood to a depth of about 1/2 inch, your wood may be rotten.
2. Lift a small section of the wood with the tip of the ice pick. If the wood has rotted, it will lift in small sections across the grain. Healthy wood will typically lift in long splinters.

NEVER!

Never paint or otherwise cover a deteriorated wooden surface without repairing the source of the deterioration.

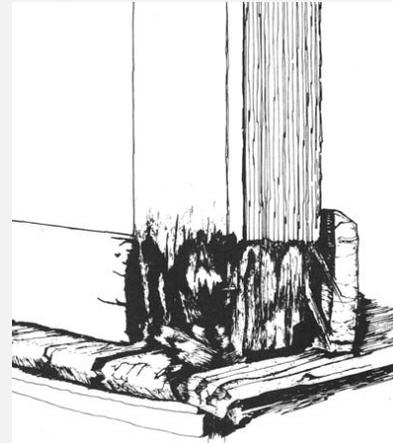
FOR MORE INFORMATION:

- [Water and Your Building](#) (Page 30)
- [Exterior Color and Paint](#) (page 66)

Types of Wood Rot

Soft Rot is a slow decay that appears as a cracked surface and is caused by extended saturation or alternating wet-dry cycles.

Brown Rot is a serious form of rot resulting from excess moisture and fast-moving inner deterioration of the wood. The result is a crumbly surface that turns wood a brown color. Cracks are visible across the grain of the wood, and they permit greater amounts of water to penetrate, which results in greater deterioration.



Dry Rot is the most serious type of rot. It is a fungal infestation caused by excessive moisture. Infested wood crumbles to the touch and is easily and deeply penetrated by a penknife. This rot conducts water deep into the wood, and may leave white strands or tendrils that eventually form into sheets.



Figure 49 Upper York Road residence



Figure 50 Upper York Road residence



Figure 51 Stone residence in Solebury

Masonry Walls

Exterior Walls of Masonry

Stone and brick are Solebury Township's most common types of masonry. The color and texture of individual bricks and stones, the pattern in which the units are laid, and the consistency, color, size, and shape of the mortar joints between the units all give character to masonry.

Masonry is also used ornamentally on buildings. Ornament and detailing in masonry contribute greatly to the character of a building.

Although masonry is typically viewed as a very strong building material, excess water can literally turn it to dust. Other major causes of masonry deterioration include general neglect, improper maintenance, inappropriate repair, and harsh cleaning methods.

The most common problems with masonry include the crumbling and falling of individual bricks and the loss or loosening of individual bricks and stones. This type of deterioration is typically caused by excess moisture penetrating the masonry wall - a problem that is made worse by sandblasting. This removes the protective coating on brick or stone, exposing the interior and leading to more rapid deterioration.

Masonry Deterioration

What to do about loose or missing masonry units

ALWAYS:

Remedy the cause of excess moisture in the wall before proceeding with repair or replacement of individual masonry units. Refer to the left column for more information on spalling and dusting.

OPTIONS:

FIRST CHOICE

If original masonry units that have become loose are sound, repair the damaged wall by securing the loose units and reattaching the separated units by repointing. (For more information on [Mortar](#) refer to Page 40)

SECOND CHOICE

Use as much original material as possible to repair the damaged wall. For units that cannot be reused, replace the new units of the same material, color, size, and texture, using the same bonding pattern.

THIRD CHOICE

For significant masonry repair, consider hiring a professional experienced in the repair of historic masonry to pursue mechanical repair or composite patching.

CONSIDER:

- For brick masonry, consider using recycled brick, but use only hard brick intended for the exterior of a building, ensuring that the face of the brick intended for the exterior will face the outside.
- If work is also being done in a less visible area of the building, consider relocating historic masonry from the less visible area to the more prominent area.

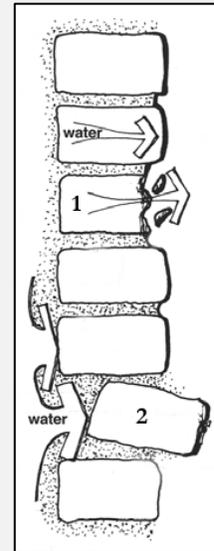
ALWAYS!

- Avoid removing masonry units without installing replacements.
- Avoid installing replacements that don't match the original in size, shape, color, profile, and bond.

Crumbling and Flaking Masonry

If the following conditions exist, identify and fix the source of the problem, then replace your bricks or stones.

Spalling can have two effects on masonry, both caused by excess moisture. First, water with its dissolved impurities is absorbed into a wall, and collects inside individual bricks and stones, or behind them. When caught inside, the impurities crystallize and then create pressure that causes the outside layer of the masonry to fall off (1).



When water collects behind the bricks or stones, freezing and thawing of the wall causes them to contract and expand. They actually move, and this can break the bond between the unit and the surrounding mortar. When this happens, individual bricks or stones actually separate from the wall (2).

Dusting is a condition that occurs after the surface of the masonry has fallen off, and the softer, inner core of the masonry is being rubbed away. Dusting occurs after sandblasting or extensive spalling, or because of the use of soft bricks that were never intended for the exterior of a building.

How to Clean Masonry

Masonry walls can become dirty or stained for many reasons. Metals or industrial products, moisture-related problems, and unwanted paint commonly affect brick and stone walls. Dirt accumulates on buildings over time, and dirty areas remain wet longer, which invites deterioration. Cleaning can improve a building by restoring crispness to detail and by reducing the amount of moisture absorbed into the building materials. But the normal aging and weathering of a building can form a natural coating on the building surface. This coating need not be removed if it is not contributing to, or concealing, deterioration.

STEPS TO CLEANING A BUILDING

1. Determine if the building really needs to be cleaned. (See below.)
2. Identify the type of masonry, the source and type of the stain, and the gentlest possible cleaning methods. (See the Masonry Cleaning Methods Table on the next page.)
3. Determine and evaluate the effect of each possible method on the masonry by conducting test patches. Water cleaning methods are the safest, gentlest, cheapest, and simplest methods for cleaning masonry.
4. Prepare the masonry surface. Complete all necessary repointing before cleaning to discourage excessive water infiltration. (Cleaning may disturb some mortar, requiring additional repointing after cleaning. See more information on [Mortar](#) on page 40.)
5. For all methods, perform test patches to determine the effects of the method over time. Be aware that some effects may not be visible until several months have passed and all weathering possibilities have occurred.
6. Proceed with the gentlest cleaning method. If the desired cleanliness cannot be achieved, test the next strongest option that provides the desired result without damaging the masonry.

DOES YOUR BUILDING NEED TO BE CLEANED?

These conditions indicate that your building may need to be cleaned:

- Significant detailing is obscured by heavy soiling.
- A spotty white haze appears in a horizontal pattern on the brick. (This may be efflorescence.)
- Biological growth is present.
- Heavy soiling is contributing to the deterioration and decay of the building.

Clean Part or All of the Building?

Although each stain should be treated individually, and although cleaning an entire building just to clean it is not recommended, be aware that spot cleaning of stains may result in a wall that looks spotty.

GUIDELINES FOR CLEANING

1. Clean only to halt deterioration or remove heavy soiling.
2. Aim to reduce water infiltration into the building.
3. Treat stains individually.
4. NEVER proceed with a wet cleaning operation in cold weather. Chemicals will work differently, and frost can severely damage a thoroughly wet building.

For more information see these sections in these guidelines:

- [Water and Your Building](#) (Page 30)
- [Exterior Color and Paint](#) (Page 66)

Masonry Cleaning Methods

ALWAYS BEGIN WITH THE GENTLEST CLEANING METHOD AVAILABLE

1ST CHOICE METHODS: WATER WASHING

Water washing is the gentlest, easiest, most economical cleaning method. Begin with Option 1. If the desired cleanliness cannot be achieved, move to Option 2, and proceed to options 3 and 4 as necessary.

For Which Stains	For Which Materials	Watch for These Hazards	Consider This
OPTION 1: HAND SCRUBBING			
Dirt, grime, metallic stains, biological growth & related stains, soot, efflorescence	Calcium-based masonry, like limestone, marble, and brick	Be careful not to use too much water. Excess water increases the drying time required and can lead to deterioration.	Use a garden hose, a bucket, possibly a non-ionic detergent (like dishwashing liquid), and bristle (never metal) brush.
OPTION 2: SPRAYING			
Heavy dirt & grime, soot, metallic stains, biological growth & related stains, efflorescence.	Brick and calcium-based masonry, including limestone and marble.	Be careful not to use too much water. Excess water increases the drying time required and can lead to deterioration.	Involves the use of a hose with regular pressure applying a fine mist of water to the masonry surface for a number of hours. May be combined with hand scrubbing.
OPTION 3: LOW PRESSURE WASHING			
Heavy dirt & grime, soot, metallic stains, biological growth & related stains, efflorescence.	Brick and calcium-based masonry, including limestone and marble.	High pressure can damage brick, so perform test patches. Start with very low pressure, increase gradually until reaching desired cleanliness.	Involves the use of a low-pressure mechanical water jet with less than 500 psi. Can be combined with chemicals.
OPTION 4: STEAMING			
Heavy dirt & grime, soot, metallic stains, biological growth & related stains, efflorescence.	Brick and calcium-based masonry, including limestone and marble.	See notes on chemicals below in this chart	Involves steam generated at the masonry surface at low pressure, possibly in combination with detergents or chemicals.

The Dangers of Abrasive Cleaning

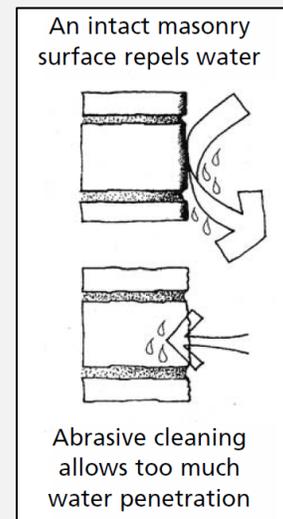
Abrasive cleaning methods, tools, and equipment are never an option for cleaning historic buildings. This includes all:

- Sandblasting
- Wire and metal brushes
- Rotary wheels
- Belt sanders
- Similar tools

These methods are very difficult to control and typically do irreversible damage to historic building materials.

ABRASIVE CLEANING OPTIONS:

- Remove the outer surface of the masonry
- Damage detailing
- Allow increased water penetration and increased deterioration



Masonry Cleaning Methods

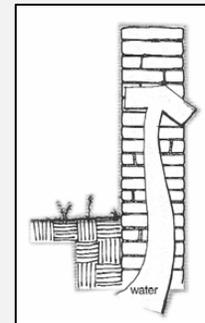
2ND CHOICE METHODS: CHEMICAL CLEANING

If water washing cannot produce the desired result, proceed with Chemical Washing under the guidance of an experienced professional. Choose chemicals based on the nature of the building materials and the nature of the stain. Use the weakest possible solution and neutralize afterwards. Be sure to follow manufacturer’s directions, particularly regarding the range of appropriate temperatures for working with chemicals, and the potential hazards.

For Which Stains	For Which Materials	Watch for These Hazards	Consider This
OPTION 5A: ALKALINE CHEMICALS			
Paint, metallic stains	Masonry that is sensitive to acids, like limestone, marble, calcium-based sandstone, polished granite, glazed brick, and terra cotta.	Chemicals are potentially dangerous to people, the environment, and the building if not used cautiously.	Consult a professional experienced with historic buildings before beginning a chemical cleaning project.
OPTION 5B: ACIDIC CHEMICALS			
Paint, metallic stains	These chemicals are typically used on slate, granite, unglazed bricks, concrete, and other non-calcium-based stone.	Chemicals are potentially dangerous to people, the environment, and the building if not used cautiously.	Consult a professional experienced with historic buildings before beginning a chemical cleaning project.
OPTION 5C: POULTICES			
Industrial products, graffiti, metallic stains	Poultices can be created for most types of building materials	Chemicals are potentially dangerous to people, the environment, and the building if not used cautiously.	Consult a professional experienced with historic buildings before beginning a chemical cleaning project.

Other Damaging Conditions for Masonry

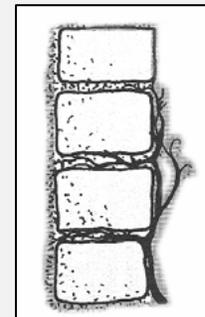
Efflorescence: This is a spotty white haze appearing in a horizontal pattern in brick. It is created by salts that are deposited after water evaporates inside the wall, and means there is excess moisture present. The moisture enters through a defect, or by rising damp, and then evaporates at the interior or exterior.



Rising Damp: This condition exists when suction pulls groundwater into a masonry wall from the bottom up. Rising damp can result in spalling, efflorescence, and other deterioration.

Biological Growth:

Mold, algae, fungus, and vegetation can grow on a masonry wall when excess moisture is present. The moisture may be a result of faulty caulking or mortar; cracks created by building settlement; faulty gutters, downspouts, and flashing; improperly ventilated interior spaces, or excessive shade. This growth encourages moisture to remain in the masonry, thus making it more susceptible to deterioration.



Mortar

Mortar is composed of sand, water, and lime or Portland cement. Historic mortar may also contain ash, horse hair, oyster shells, or other additives. The process of using mortar to bond masonry units - brick or stone - to form a wall is called **pointing**. **Repointing** is the process of removing deteriorated mortar and applying new mortar to restore the strength and appearance of the wall.

WHAT YOU SEE:

Crumbling, loose, and/or missing mortar.

THE PROBLEM:

Building movement, extreme weathering, or excess moisture.

OPTIONS:

FIRST CHOICE

If the pointing is firm, intact, and not eroded more than 1/3 inch, do not repoint. Inspect the mortar and the entire building regularly for further deterioration.

SECOND CHOICE

If the joints have eroded more than 1/3 inch; or if mortar has fallen out; or if cracks have formed in the mortar; or if mortar has separated from the masonry units; or if mortar sits loosely in the joint, proceed with repointing only the damaged area, following the guidelines in this manual.

THIRD CHOICE

If you think the entire wall needs repointing, seek professional assistance.

ALWAYS!

- Repair the cause of the problem before treating the symptoms. If building movement is ongoing, contact a professional engineer.
- Seek professional assistance for determining appropriate mortar consistency.

NEVER!

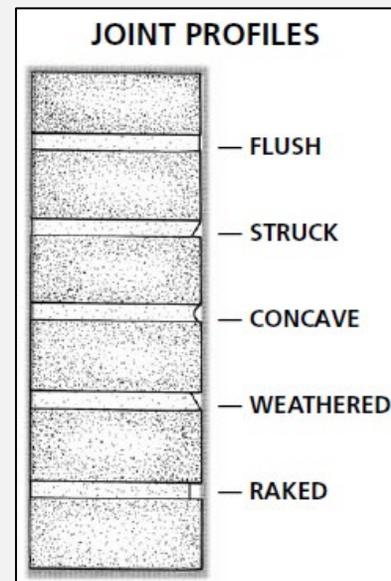
- Use a synthetic caulking compound.
- Use a mortar mixture with a Portland cement content higher than 20 percent of the total volume of lime and cement combined.
- Use a mortar that is harder than the surrounding masonry.

Priorities for Masonry

- Always determine the appropriate mortar formula for historic masonry. Always test the existing mortar to determine its composition, and then base the new mortar composition on the old.
- Keep historically painted masonry surfaces painted; avoid painting surfaces that weren't painted historically.
- Avoid using abrasive methods to clean masonry surfaces.

DO THIS:

Check the credentials of any contractor you may consider for working on the masonry and mortar of your historic building. Choose a contractor who is experienced in properly repointing historic masonry walls. **If your contractor insists on widening the mortar joints, choose someone else.**



Guidelines for Repointing

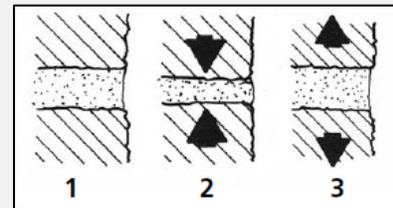
1. New mortar must match the strength of the historic mortar, and must be softer than the surrounding masonry.
2. Mortar to be used for repointing should match the original mortar in color, texture, and composition.
3. Sand color is critical to determining mortar color.
4. Although it will be time and labor intensive, use only hand tools for removing old mortar. Using power tools will damage the edges of the stone or brick. Remove mortar to a depth of 3/4 inch or deeper to reach sound mortar.
5. When flushing the joints after removing mortar, use as little water as possible in a gentle stream.
6. Copy the tooling method and detailing of the historic joints. Be aware that these details may change on different portions of the building. Check for joint profile on protected areas of the building, like under eaves, because weathering may alter the profile.
7. Avoid removing sound mortar to achieve a uniform appearance. Achieve a uniform appearance by properly analyzing the existing mortar and matching it to the original recipe in only the damaged area. New mortar of the historic recipe should weather to the color of the original.

WHY FUSS OVER LIME OR PORTLAND CEMENT?

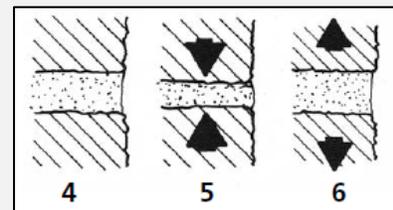
- Lime mortar and Portland cement mortar are significantly different.
- Although it may at first seem that a harder mortar is better, this is rarely true for historic brick. Bricks made today are considerably harder than the bricks used in older buildings. Although the hardness of Portland cement mortars works well with today's modern bricks, they will destroy older masonry in a relatively short period of time.
- Lime mortar is relatively soft and porous. Portland cement mortar is hard and nonporous.
- Lime mortar is softer than the surrounding historic brick, which allows the brick to expand and contract as it should. Hot bricks expand, forcing the mortar joint to contract. Cold bricks contract, requiring the mortar to expand.
- In masonry walls with joints of lime mortar, water can drain and escape through the mortar joints. In masonry walls with joints of Portland cement mortar, water stays in the brick or in the old lime mortar that lies behind the new Portland cement mortar. This causes the brick to expand. Because the Portland cement is too strong to move, the brick moves instead, resulting in the cracking, spalling, dusting, and loss of the brick, as well as the deterioration of the remaining lime mortar.

Is There Lime or Portland Cement in Your Mortar?

Remove a loose piece of mortar from an inconspicuous location. Soak the mortar in water. If it softens and crumbles under pressure, it has a lime base. If it softens but won't crack, it has Portland cement. Keep in mind that your building may have been repointed a number of times, and possibly with the wrong type of mortar, so you should carefully inspect your building and you may need to collect and test a number of samples.



Soft Historic Mortar and Historic Brick (1). The solidity of the wall is maintained throughout contraction (2) and expansion (3).



Hard Modern Mortar and Historic Brick (4). The forces of contraction (5) and expansion (6) break the bond between the bricks and the mortar, and the wall deteriorates.

What Are the Exact Components of Your Mortar?

A trained professional can determine the exact components of your mortar in a laboratory, but you can conduct a relatively simple experiment yourself. Follow these steps:

1. Collect three or four mortar samples from different locations on your building. Don't take the samples from the surface, because surface mortar has weathered and will be darker than the original color. Multiple samples are required because your building may have been repointed several times. Set one sample aside for comparison.
2. Keeping each sample separate, break the samples apart with a wooden mallet or dissolve them in muriatic acid (available from masonry suppliers).
3. When the sample has completely broken down, remove it from the liquid, wash the remaining components in water, and allow the sample to dry. Blow away any powdery material, which is lime or cement.
4. Inspect the remaining material with a magnifying glass to determine the size and color of the components of the mortar. For your new mortar, be sure to choose sand that matches the color of the sand in your sample.
5. Other materials in your sample - like shells, hair, or ash - may be harder to obtain. Consult your masonry supplier for suggestions.
6. Once you have assembled the appropriate components, try varying recipes (see information in the sidebar on Historic Mortar Recipes). Allow them to dry in an oven, and then compare them to the historic sample you set aside in Step 1.

Historic Mortar Recipes

The following recipe is a starting point for a mortar suitable to historic masonry.

<p>1 part hydrated lime + 2 parts sand of historic color + enough water for a workable mix</p>
--

This recipe can be modified with some white Portland cement to improve workability and drying, but Portland content should never exceed 20 percent of the total volume of lime and cement combined. Portland cement should be white -never gray or light gray. You could begin by testing one of these recipes that include Portland cement:

<p>1 part white Portland cement + 2 or 3 parts hydrated lime + 6 parts sand of historic color</p>

OR

<p>1 part white Portland cement + 4 parts hydrated lime + 10 parts sand of historic color</p>

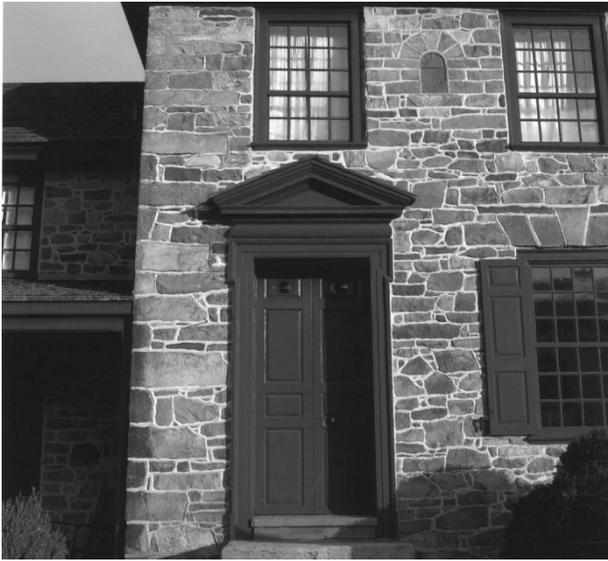


Figure 52 Doorway on River Road



Figure 53 Historic Window

Windows and Doors

The Significance of Windows and Doors

Windows and doors are among the most prominent features of historic buildings in our area. Windows typically comprise about 20 to 30 percent of a historic building's surface area, and they act as both interior and exterior elements. Historic doors often used size and detailing to draw attention to the entrance.

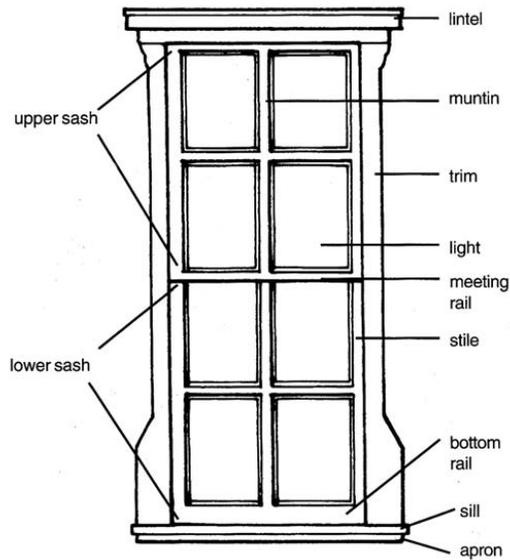
Significant parts of doors and windows include their materials and shape, panel and pane arrangement, moldings, hoods, fanlights, and sidelights.

Windows and doors receive consistently hard use, but they are so thoroughly integrated into the structure of a house that complete replacement is rarely advisable. Repair and weatherization are often more practical and economical than most property owners realize.

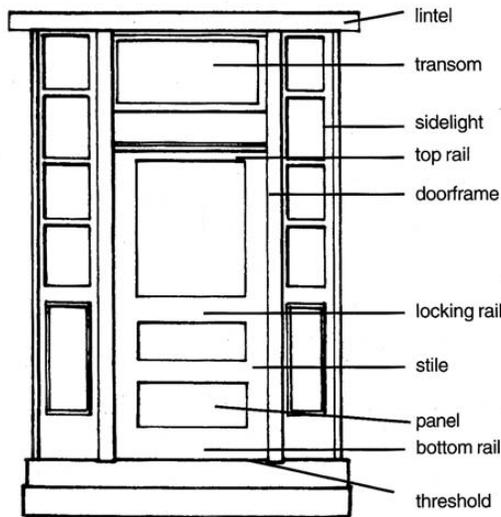


Figure 54 Door with side lights

Parts of Windows and Doors



Windows are typically composed of sash in a frame with surrounding trim.



Doors are typically composed of panels and rails that are placed in frames. Doors are often combined with transoms and sidelights to create a more elaborate doorway.

Windows and Doors are Significant

They should be retained if they:

1. Are original
2. Reflect the original design intent for the building
3. Reflect period or regional styles or building practices
4. Reflect changes to the building from major events
5. Are examples of exceptional craftsmanship or design



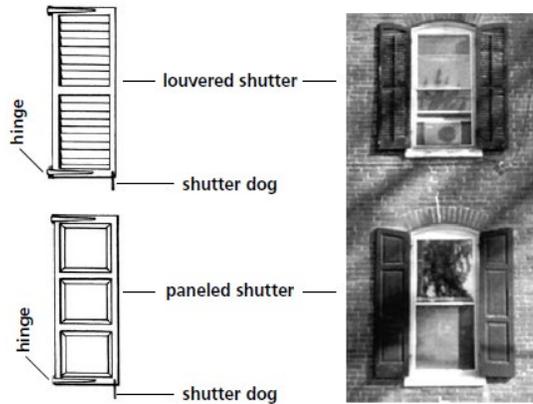
Figure 55 Lumberville residence



Figure 56 Carversville residence

Shutters

Shutters were used historically for insulation. They closed over window and door openings to keep the wind and sun out. Shutters are rarely used for this purpose today, but on a historic building they should still appear functional.



WHEN ARE SHUTTERS APPROPRIATE?

Shutters were not installed on all buildings, and should only be added to those historic buildings that did have them. Shutters were used on most Federal style buildings, and were less frequently used on Greek Revival, Italianate, and Queen Anne buildings. (For more information on styles see [Carversville History](#) on page 101) Look for holes near the top and bottom of your window frames, or faded silhouettes of shutters on your exterior walls, or shutter anchors on the wall near your windows. If this evidence exists, shutters may be appropriate for your building.

SHUTTER GUIDELINES:

- Shutters should be attached with hinges to the face of the window - not to the wall.
- Many buildings were fitted with paneled shutters at the first story and louvered shutters at the second story. Replacement shutters should duplicate this pattern.
- Retain ornamental anchors.
- Horizontal divisions of shutters should match those of the sash.
- New shutters should be made of wood.
- Shutters should be installed only if they were used historically.

Shutter Guidelines

Shutters are not appropriate for bay windows, most dormers, and most other ornamental windows.	
Shutter height should match sash height.	
Shutter shape should match window shape.	
Shutters should be louvered or paneled.	
Each shutter should cover half the entire window opening.	
Shutters are not appropriate for bands of adjacent windows.	
Shutters should lie flat without overlapping when open.	

Window and Door Repair

The options for repairing, rehabilitating, and replacing historic wood windows and doors directly relate to the degree of deterioration present.

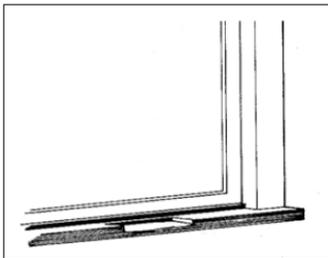
OPTIONS

FIRST CHOICE

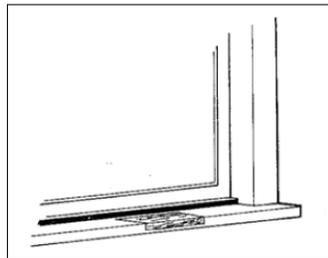
Undertake routine maintenance on windows and doors. This may include replacement of broken panes, repair of sash cords, removal and reapplication of caulking, putty, and weather-stripping, and scraping, sanding, priming, and repainting.

SECOND CHOICE

Repair decayed parts in place. If wood is badly rotted, treat with fungicide, saturate with linseed oil, fill cracks and holes with putty, consolidate with epoxy or patching compound, sand, prime, and paint.



a



b

THIRD CHOICE

Without replacing the entire unit, replace parts of the frame and sash or door by patching, splicing, and piecing in (a). Using surviving parts as models choose replacement parts that match the original in size, shape, material, and all detailing (b). If a majority of a member is deteriorated, replace the entire member using the old one as a pattern for the new.

FOURTH CHOICE

If a majority of the components of the window sash and frame, or door and door frame, require replacement, consider replacing the entire unit using the guidelines on the next page.

Awnings

In the first half of the 20th century, canvas awnings were often installed on new residences and were added to older residences. Awnings can enhance the appearance of a building and can be up to seven times more effective than drapes in controlling heat gain.

GUIDELINES FOR AWNINGS:

- The top of the awning should conform to the shape of the window or door opening.
- The awning should be contained within the opening.
- Awnings and their associated hardware should not damage or hide existing historic materials or features.
- Canvas or other flexible, natural materials are preferred. Rigid awnings should not be installed.



Figure 57 Canvas awning in Solebury Village

NOTE: For information on awnings and signs for commercial buildings, see [Commercial Buildings](#) on page 72.

When to Replace Windows and Doors

Wood windows and doors are subject to deterioration from years of use, water accumulation, and insects. But deteriorated wood windows and doors may look worse than they are. The most commonly affected areas, the sill and the lower rail, often can be restored without replacing the entire unit. In most cases, even if individual units are severely deteriorated, replacement of all the windows and doors in a historic building is seldom necessary and should be avoided. Four out of five times, the verdict to replace an entire window is due only to a rotted sill.

SIGNS THAT A WINDOW OR DOOR NEEDS MAINTENANCE OR REPAIR

- Loose putty
- Air infiltration
- Stuck sash
- Broken sash cords
- Broken glass
- Peeling paint

These conditions alone do **not** warrant replacement.

SIGNS THAT A WINDOW SHOULD BE REPLACED

- The existing window cannot be made to fit tightly in the wall because of settlement or deterioration in the outside wall.
- Substantial parts of the window are missing or are so severely damaged that they must be replaced.

CAUTION: Removing window or door units for repair increases the likelihood of damage. Attempt to repair windows and doors in place.

In order for replacement windows to be considered by HARB, the applicant must prove that their existing window(s) are “severely deteriorated or missing”. This requires a [Single Window Survey](#) (see page 142) in the case of an individual window or a window-by-window survey, either of which must document the existing condition of the window(s) to be replaced as well as photograph(s) that clearly depict the extent and severity of the deterioration. A site visit may be conducted by HARB prior to the formal application review at a public HARB meeting.

When are Windows and Doors Deteriorated Beyond Repair?

The ICE PICK TEST can help you determine the extent of deterioration in wood windows and doors.

- If an ice pick inserted into a wood member penetrates the wood less than 1/8 inch, then the wood is solid and the unit does not need to be replaced.
- If the ice pick penetrates 1/2 inch or more, the wood may have dry rot.

WHAT TO DO:

- If the condition has affected only a portion of a component, repair the damaged member.
- If the condition has affected a majority of a component, replace the infected member.
- If the condition has affected a majority of the components of the unit, consider replacement of the unit.

Wood windows and doors can be considered beyond repair when a majority of the component parts require replacement to make the unit weathertight and serviceable.

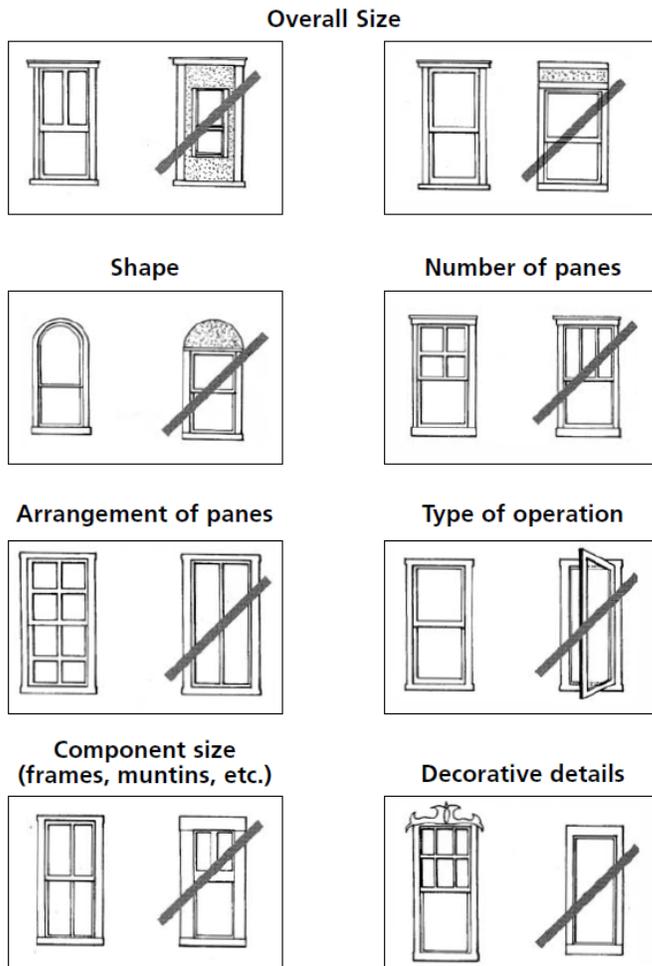
Choosing Replacements

Once it has been determined that a window or door is beyond repair and must be replaced, the type of replacement unit must be chosen.

OPTIONS

FIRST CHOICE

Choose replacement windows and doors that fit the original opening exactly and match the original units in material type, glass color, and reflectivity, and:



SECOND CHOICE

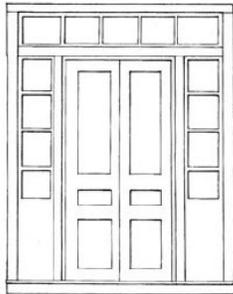
Choose windows and doors of a compatible material that match all the other design details of the original choice.

Replacement Guidelines

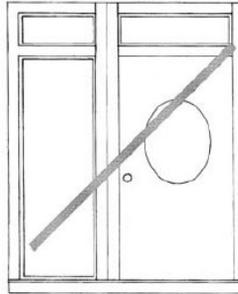
- When a replacement is needed and work is being undertaken in other parts of the building, consider moving a historic window or door from an inconspicuous location to a more visible wall.
- When original windows are missing, replacements should be chosen based on historical, pictorial, or physical documentation. Avoid creating a false historic appearance due to insufficient documentation.
- Check salvage yards, antique stores, demolition companies, and custom manufacture companies for replacements. Be sure to reuse all serviceable historic hardware.
- For multi-pane replacement windows, replacements that have panes of glass divided by muntins (strips of wood) are the best choice. Snap-in muntins, surface applied muntins, and muntins between panes of glass should be avoided. They are not convincing because they don't have enough depth to provide a shadow.
- Picture windows, bay windows, and casement windows should be chosen as replacements only when these types are original to the building.

The Size of Window and Door Openings

Maintaining the original size of door and window openings is important because the size contributes to the overall design and visual balance of the building. When replacing historic windows and doors, follow the guidelines below.



A historic entrance



An incompatible modern entrance



Historic windows with sash that completely fill the opening



A historic window opening reduced in size to accommodate a replacement sash that is too small.

GUIDELINES FOR WINDOW AND DOOR SIZE

- Maintain the shape of window and door openings.
- Install window air conditioners on side or rear elevations.
- If a ceiling must be lowered at the interior, provide a setback or slope to allow the full height of the window to remain open.
- Maintain divisions created by sidelights and transoms in entryways.
- Avoid decreasing the size of window or door openings by partially filling them, especially to allow for stock size replacements.
- Avoid enlarging window or door openings to allow for picture windows, bay windows, casements, or other windows not original to the building.

Making New Window and Door Openings

New window and door openings tend to destroy the rhythm and balance of historic buildings and their historic materials. For these reasons, creating a new opening should be carefully considered

OPTIONS

First Choice

Locate the new opening on a wall that is not visible from a public street or alley.

Second Choice

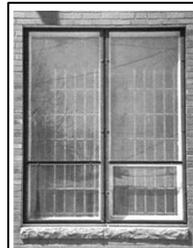
Locate the new opening on a side or rear elevation shielded from public view.

ALWAYS!

- Create new openings only in locations that will minimize the loss of historic materials and features.
- Create new openings that are compatible in size, scale, shape, proportions, and massing to the wall and the overall building.
- Document the original condition of the building and save removed historic materials for later use.

Guidelines for Storm Windows and Doors

- Wood storm frames are preferred. They can be fabricated to fit any opening and are much more energy efficient than aluminum or vinyl because wood conducts heat more slowly than those materials. Well maintained wooden storms can last more than 100 years - much longer than aluminum.
- Storm units should completely fill the opening. Any divisions should match existing divisions in the primary unit. Aim to reveal as much of the original unit as possible.
- Storm units should match the shape of the window or door opening. If the opening is arched, the storm unit should be arched.
- Install storm units without damaging the original building fabric. Install caulking to ensure that moisture does not collect between the storm and the primary unit.
- Avoid storms with a natural aluminum finish. They should be painted to match window trim.



The storm sash on these windows has divisions that match those of the historic windows. This increases the compatibility between the storm sash and the historic window.



Shutters should match the size and shape of the window opening, like these arched shutters.

REMEMBER!

Never replace a window or door if repair and maintenance can improve its performance and maintain its originality.

NOTE

Storm windows are much more effective than storm doors. Storm doors and entrance vestibules are typically not cost-effective. A properly weather-stripped door can outperform a door/storm door combination.

Weather-stripping and Caulking

Air can leak between a window's sash and frame, between window and door frames and the adjacent wall surface, and where sash rails meet. Weather-stripping fills cracks around doors and windows to provide a tight seal and to eliminate drafts. Caulking seals gaps between building materials to prevent air and water infiltration.

Potential Areas for Weather-stripping and Caulking

- Behind the track of window sash
- Between the joining rails of the upper and lower sash
- Along bottom of sliding sash units
- Around door frames
- Around the inside perimeter of double hung windows
- On the frame and along the full width of the door sill
- Between corner boards and siding
- Between sill plate and foundation
- Joints between masonry and wood

Hints

- Correct installation of weather-stripping and caulk is essential. Follow manufacturer's directions.
- Regularly inspect for and replace bent, torn, or loose weather-stripping.
- Joints larger than 1/2-inch-deep and 1/2-inch-wide should receive a foam backer before caulking.



Figure 58 Lumberville Porch

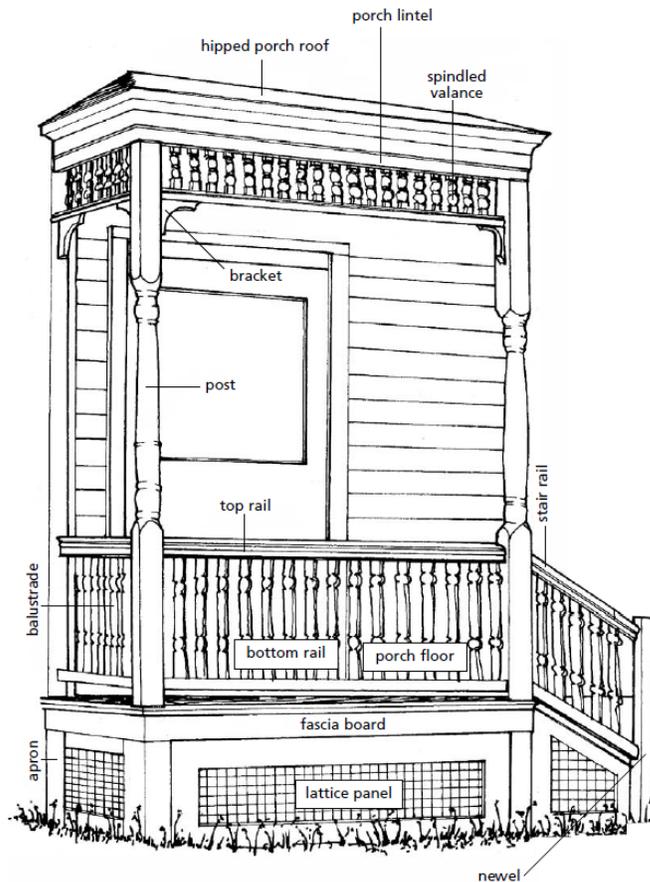


Figure 59 The parts of a porch

Porches

Porches are among the most visible features of older houses. They are also some of the most frequently altered features. Porches take a variety of forms. Common forms include single-story porches that extend the full length of the building's front wall and porches much shorter in length that extend just beyond the building's main entrance. Two-story porches, porches on side and rear walls, and porches that wrap around the corners of buildings are also found. Many buildings have porch elements in a slightly different form. Columns or columns set in the wall (called pilasters) at the sides of the door combined with ornamental moldings or a pediment (a triangular element with moldings) above, or simply a pediment-like hood that projects from the wall above the entrance, are also common. This use of elements can be considered a simple version of a porch.

Regardless of the size or scale of the porch, the component elements, which can include columns, posts, pilasters, balustrades, entablatures, pediments, stairs, railings, floors, ceilings, trim, and other ornament, are essential to the distinctiveness of historic houses.

Many porch elements are protected from the weather by the porch roof. Other porch elements, like stairs and railings, have received hard use and exposure to weather for many years. Consequently, porches require careful maintenance to retain their unique character.

The Repair of Porches

OPTIONS:

FIRST CHOICE

Using standard maintenance techniques, repair the damaged elements of the porch in place and reuse the original parts of the porch, including moldings and three - dimensional turned balusters, to restore the porch to its historic appearance.

SECOND CHOICE

If individual porch elements are beyond repair, replace only those elements with new elements of the same material and visual characteristics.

THIRD CHOICE

If a major portion of the porch has deteriorated beyond repair and the original design cannot be replicated, use stock lumber and moldings to create a simplified design that conveys the same visual characteristics as the original porch. Duplicate the dimensions and materials without the extensive detailing.

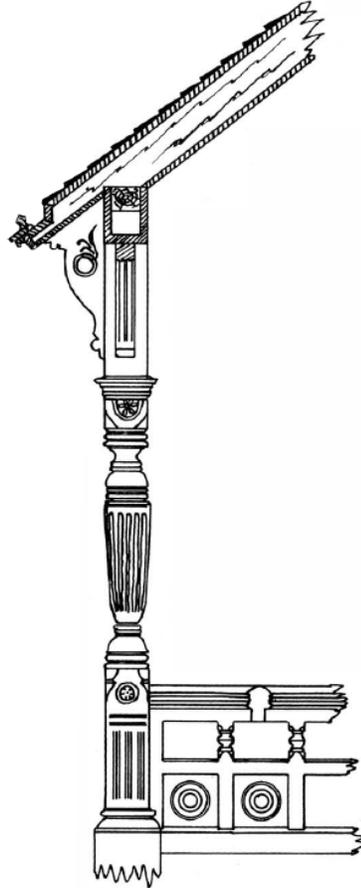


Figure 60 Nineteenth century drawing of parts of a porch by architect M.E. Stallsmith

Guidelines for Porch Repairs

- Carefully inspect deteriorated porch elements. Replace only those parts that cannot be repaired. For example, the bases of porch columns are often a major site of extensive deterioration. But a deteriorated column base does not necessarily require the replacement of the entire column.
- Avoid introducing new materials that were not historically a part of the porch. For example, don't replace wooden posts with brick, metal, or vinyl posts, or with other synthetic material.

Steps, Railings, & Balustrades

Steps need maintenance because they receive heavy use, are constantly exposed to the weather, and are in close contact with the ground. If your steps are deteriorated beyond repair and must be replaced, follow these guidelines:

REBUILT STEPS SHOULD CONTINUE THE MATERIALS OF THE PORCH:

- Wood stairs for frame houses are historically correct. They should not be replaced with concrete.
- Brick steps are typically appropriate only for porches with brick posts and foundations.
- Stone steps are typically appropriate only for porches with stone posts and foundations.
- Concrete steps are rarely appropriate for historic houses.

REBUILT STEPS SHOULD MAINTAIN THE HISTORIC ORIENTATION:

- Steps were typically, but not always, positioned in line with the front entrance.

REPLACEMENT STEP RAILINGS SHOULD MATCH THE BALUSTRADE OF THE HISTORIC PORCH IN MATERIAL AND DETAILING:

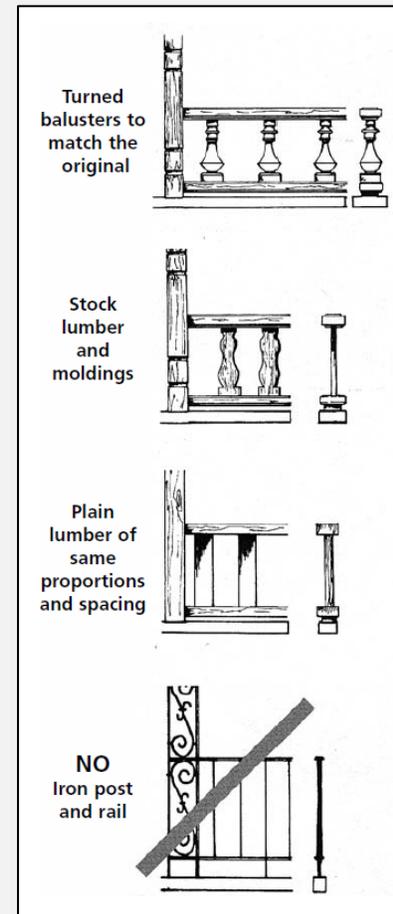
- Wrought iron or aluminum railings and columns are not good substitutes for wood elements. Their lightweight appearance is inappropriate.
- Most Victorian porches had step balustrades that ended in a newel similar to the porch columns.



REPLACEMENT BALUSTRADES SHOULD MAINTAIN THE OVERALL CHARACTER OF THE HISTORIC BALUSTRADE:

- Don't replace a turned balustrade with latticework.
- Don't replace a turned balustrade with solid panels.
- Millwork to replace turned balustrades can be made.

Options for Replacement Balustrades



When is a New Porch Appropriate?

1. When it can be documented by historical, pictorial, and physical evidence that a porch of the type to be erected once existed on the house.
2. When it can be determined that houses of similar type, style, and date of construction were originally built with porches of the type to be erected.

Determining if a Porch Existed

- Railings, floors, and roofs may have left shadows on walls or trim. Check beneath newer siding.
- Historic maps and photos may show earlier porches or steps.
- Look for similar houses in your neighborhood and compare porches. But remember that all porches are not necessarily original or historic.
- Check basements, attics, and other storage areas for original pieces.
- Ask your neighbors.

Guidelines for Adding New Porches

- Thoroughly consider the factors of size, shape, scale, profile, massing, materials, color, and texture in the design.
- Avoid hiding, damaging, destroying, or otherwise negatively affecting existing historic materials and features of the original building.
- Build a wood porch if the house has wood siding or wood shingles. For a masonry house, the porch may be wood or masonry. Check style guides and similar houses to determine which is more appropriate.



Figure 61 Lumberville porches



Figure 62 Carversville Inn

Door Hoods

Many buildings have hoods over the entrance door rather than full porches. These hoods may be simple or highly ornamented. They may be rounded or triangular in shape. Such hoods offer a degree of shelter and add detail and interest to the entrance and the overall building. Remaining door hoods should be retained.



Figure 63 A pediment door hood with sunburst ornament



Figure 64 A door hood with a hipped roof



Figure 65 An arched door hood

Priorities for Porches



Figure 66 A door with gable roof in Carversville

- If a porch must be enclosed, ensure that the enclosure does not appear solid.
- Avoid constructing entrance porches or door hoods where they never existed. Such additions give buildings a false appearance and diminish the importance of the buildings that do possess those elements.
- If a new porch must be added, build it on a side or rear wall that is not visible from a public street or alley.

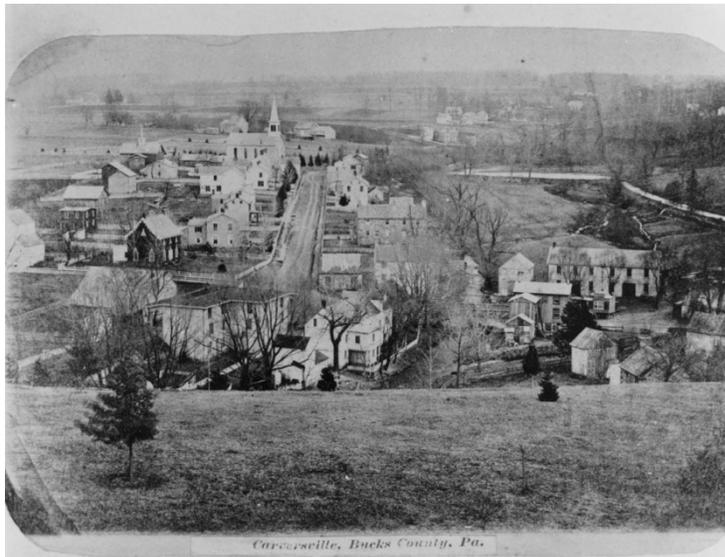


Figure 67 The village of Carversville c. 1900

Roofs

Roofs are important because they offer shelter to the activities in the building below. Roofs are highly vulnerable to the damaging effects of wind, rain, snow, and heat from the sun and a weather-tight roof is a necessity for the preservation of any structure, old or new. Problems inherent in the design of a historic roof can be controlled through the use of good materials and regular maintenance.

Although the functional requirements of a roof are important, roof design often goes beyond the merely functional and contributes considerably to the character of the building. The shape, size, color, pattern, and detailing of a roof are important elements that help define the building's character and add interest to the streetscape.



Figure 68 A house with a patterned slate mansard roof

Significance of Form

Roofs, even those of simple form, help to determine the character of a building. The combination of the size, shape, and slope of a roof create a unique silhouette. Typical roof shapes include the gambrel, hip, mansard, shed, and flat roof.

Builders were guided by practical considerations in their selection of roof shapes. For example, builders often chose steeper slopes to shed snow and rain. Sometimes the need for attic space prompted the construction of a gambrel or mansard roof, which provided more space than a flat or gabled roof would. Ease of construction prompted other builders to choose a simple gable over a more complex mansard.



Figure 69 Fleecydale road

Despite the importance of such practical considerations, certain roof shapes became associated with specific architectural styles over the years. Neo-classic houses typically had low pitched gabled roofs, which reflected the pediments of classical buildings that inspired the style.

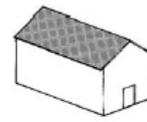
Gothic Revival buildings used steeper slopes and complex silhouettes to reflect the more picturesque feel of medieval buildings. Second Empire buildings, the style most reliant on roof shape for identification, all used the French-inspired mansard roof. Queen Anne buildings typically used complex rooflines to achieve a picturesque quality, and Colonial Revival buildings, to better imitate their earlier Colonial counterparts, reverted to the simpler gable and hipped forms.



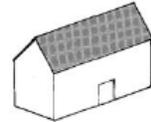
Figure 70 Carversville garage roof

This combination of practicality and stylistic influence created buildings that relied heavily on the shape of the roof for character definition. Because roof shape is so important to the character of the building, the guidelines contained in this chapter should be followed when undertaking roof repairs and alterations.

Typical Roof Shapes



Front Gable



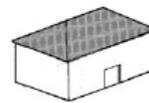
Side Gable



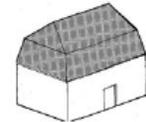
Cross Gable



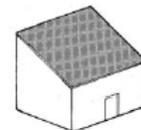
Gambrel



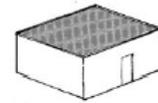
Hipped



Mansard



Shed



Flat

The Significance of Roofing Material Appearance

Like the shape and slope of the roof, roofing materials are also chosen for practical and aesthetic reasons. The choice of materials depended upon a number of factors, including availability of materials, availability of skilled artisans, roof pitch, and weather conditions. Steep roofs require materials such as shingles, slate, or tile to shed water. A flat roof calls for an unbroken surface. Moderately sloped roofs can be covered with metal or asphalt shingles.

In addition to providing a weather-tight surface, roof covering materials can add color, texture, and pattern to the roof. Shingles can be used in a variety of shapes and colors. Wood, slate, and metal offer variety in texture. The seams of metal roofs and the ways in which shingles are laid can create patterns of great visual interest. This combination of practical and aesthetic considerations has produced roofs that contribute to the overall architectural character of Solebury Township.



Figure 71 Sagan Road residence



Figure 72 Lumberville garage roof

General Guidelines for Roof Alterations

- The form and pitch of historic roofs should be maintained on all sides visible from public streets or alleys.
- Original roofs should not be raised to accommodate additional stories.
- Elements, such as solar panels and skylights, should not be added to historic roofs if they will change the overall silhouette as seen from

DETERMINING ORIGINAL MATERIALS

- If you are unsure of the material originally used on your roof, check to see if there are other materials under the current roofing materials. These may be the original roof covering. Also check historic photos, ask neighbors, and look for similar buildings in your neighborhood.

GUIDELINES FOR ROOF MATERIAL DETAILS

- [Faint, illegible text]
 - [Faint, illegible text]
- original dimensions of the seams.

Roof Covering Materials, Deterioration & Replacement

The most commonly used roofing materials in Solebury are slate, metal, asphalt, and wood shingles. Each of these materials is described below. Information is also provided on typical patterns of deterioration and replacement options.

SLATE

Slate began to be used during the Colonial period, but its initial use was limited because of cost. In the mid-nineteenth century, canals and railroads made slate more accessible and economical, and it became more widely used. The color and texture of slate varies according to its place of origin. Gray, blue, and green shades are available.



Figure 73 Deteriorating slate roof

DETERIORATION

The most typical problem with slate is with the nails used to install it. Iron nails usually fail before the slate does. If this happens, reattach the historic slates with copper nails and copper flashing. Another problem with slate is delamination. As slate weathers, its surface is slowly chipped away. The slate scales and thin layers flake off. The slate eventually becomes soft and spongy and the inner layers begin to fall apart. In this condition, slate will hold moisture and can cause adjacent wood to deteriorate. Slate in this condition should be replaced. Missing slates or slates with visible holes, cracks, or breaks should also be replaced. Slates that have slipped should be reattached.

A simple method to determine the condition of slate is to press firmly on the slate with your hand. Sound slates will be unaffected. Deteriorated slates will feel brittle and crack.

REPLACEMENT MATERIALS

A number of manufacturers continue to offer new natural slate in a variety of shades. Salvaged slate is also available from a number of

Guidelines for Determining If Roof Materials Should Be Replaced

- Calculate the amount of damaged and missing material. If the amount is less than 20% and the roof is in good condition, the material should be repaired. If the amount is more than 20%, consider replacement. If the amount is near 20% consider the age and condition of the roof in relation to its expected life. The older the roof gets, the more repair it will need.
- Don't replace an entire roof if only one slope is deteriorated. If one slope has weathered more heavily than the other slopes, consider replacing it and repairing the others. Check for the source of active leaks. Gutters, valleys and flashing are at fault more often than roof covering material. Don't replace materials if other features are the source of leaks.
- Check the roof rafters and sheathing for moisture stains and rot. Deteriorating materials can hold moisture that will cause adjacent wood to rot. Replace wood and structural members as necessary. If only underlying roof elements are deteriorated, attempt to carefully remove and then reuse the historic roof covering materials once the underlying trouble is resolved.
- Check to see if the fasteners are corroding, loose, or missing. Replace the fasteners and reuse the materials.
- Consider the availability of replacement materials.

suppliers. If you choose to use natural slate, find a supply that matches your roof and get enough for current needs and for future repairs. A variety of synthetic slate look-alike products are also available on today's market. These products have a ceramic, concrete, fiber-cement, or mineral-polymer base. Appearance varies among the types and manufacturers. Review as many samples as possible before choosing one.

CAUTIONS

Beware of roofers who insist that slate roofs cannot be repaired. Be sure to hire a roofer who specializes in slate. Note: Clay tile roofs are similar to slate roofs in most respects. Slate, asbestos, and clay tiles are fragile - don't walk on them.

WOOD SHINGLES

Wood shingles of white pine, oak, elm, cypress, redwood, and red cedar were used for roofing throughout American architectural history. Because they were a fire hazard, wood shingles were typically replaced as other, more fire-resistant materials became available. In the second half of the nineteenth century, this typically meant metal sheeting. As the Shingle Style emerged at the turn of the nineteenth century, wood shingles again gained popularity.



Figure 74 Wood shingle roof

DETERIORATION

Wood shingles are subject to all the typical sources of wooden wall deterioration. (See that chapter earlier in these guidelines.) If wood shingles appear thinned, eroded, cracked, cupped, split, spongy, or warped, the shingles are probably no longer providing sufficient weather protection. If only a few shingles are missing or damaged, replace them individually. Splits or holes in wood shingles can be treated with a piece of aluminum or galvanized steel under the shingle and roofing cement in the hole or crack. Moss and fungi on wood shingles hold moisture that can speed deterioration. Attempt to dry the roof by trimming trees that block the sun, and consider fungicide treatments. If a significant amount of water damage is visible in the attic, consider shingle replacement.

Choosing Replacement Materials

When choosing replacement materials, cost and the life of the material are important factors. For example, slate and tile will last about three times longer than asphalt shingles. Additional factors for consideration include the fact that asphalt shingles will increase in price each time they are purchased and, if scaffolding is required, it will be required two additional times as well.

Replacing historic roofing materials in kind is preferred. Most historic materials continue to be available today. In addition, new technologies are making possible the fabrication of a number of substitute materials that more closely duplicate the appearance of historic materials. As these technologies continue to improve, the Solebury Township HARB is open to considering them as replacements for materials that are beyond repair when economic factors are a consideration. Samples of these materials should be obtained for review. Remember, the color of roofing materials is reviewable by the Solebury HARB.

GUIDELINE FOR CHOOSING REPLACEMENT MATERIALS

If the roof is readily visible, the alternative material should match as closely as possible the scale, texture, and coloration of the historic roofing material.

REPLACEMENT MATERIALS

Southern pine, white pine, white oak, red cedar, and white cedar shingles are available today for replacement roofing.

METAL

Metal roofing, including lead, copper, tin-plated iron, and terne plate, began to be used in the nineteenth century. After about 1850, when manufacturing facilities for these products were established in the United States, sheet metals became more popular. To cover roofs of low or moderate pitch, individual sheets are joined by upright (standing) or flat seams.

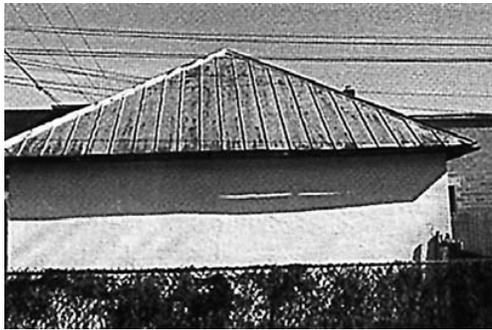


Figure 75 Metal roof on a garage

DETERIORATION

Metal roofing should last as long as it is painted. Historically, tin plating or galvanizing took care of this, but plating can wear, and once worn, iron will rust. Metal roofing can also deteriorate from chemical action caused by pollution and acid rain, which cause pitting and streaking. Because metal expands and contracts with changes in temperature, metal roofs are subject to thermal movement, buckling, and warping. These problems can lead to cracks in joints and open seams. Metal roofs are also subject to corrosion that occurs when incompatible materials, such as copper sheets and iron nails, are in direct contact. If metal roofing is severely rusted, if it contains numerous holes and splits, if several sheets have buckled or warped, if edges and joints are disfigured, or if there are large areas of thin or worn material, consider replacing the material in kind. If only a few spots have rusted or if a few holes exist, proceed with repair rather than replacement. If a single sheet has slipped, repair it.

REPLACEMENT MATERIALS

Sheet aluminum, copper, lead-coated copper, galvanized metal, painted steel, terne plate, and zinc are all available today, as are a variety of metal coatings. Metal shingles, to match those used

Guidelines for Replacement Roof Materials

1. If the roof is weathertight, do not replace materials.
2. Before replacing a roof, identify the historic material, configuration, detailing, and installation.
3. Fix all structural problems before re-roofing. Ensure that gutters, downspouts, and flashing operate properly.
4. Replace old shingles with new shingles in the original material if possible. For example, replace slate shingles with slate shingles.
5. If replacing an entire roof, replace with the same type of material. For example, don't replace shingles with sheet metal roofing.
6. Attempt to duplicate the variety of colors, textures, and patterns of the original roof.
7. Avoid roofing over an existing roof.
8. Roofing projects pose significant dangers to personal safety. Be sure to take all necessary precautions, or hire a qualified professional to undertake the work.
9. Reuse such intact roofing material as slate or tile when only the substrate requires replacement.

historically, are available, but no closely matching substitutes are available for sheet metal. Fix all structural problems before reroofing. Ensure that gutters, downspouts, and flashing operate properly.

ASPHALT

Asphalt shingles were introduced to the building market around 1890 and gained wide popularity by about 1910. Asphalt shingles are made of asphalt-saturated felt or fiberglass, embedded with mineral granules to reflect the heat and ultraviolet rays of the sun. They were considered a good roofing material because they're relatively inexpensive, and because of their fireproof quality. If your building was constructed before 1890 and it currently has asphalt shingles, the roof was probably originally covered with slate, wood, or metal.

DETERIORATION

Asphalt shingles can deteriorate due to inappropriate installation. Wind can lift and dislodge them. Over time, shingles may curl and lost their mineral covering. If more than 20 percent of asphalt shingles have curled or warped, if the mineral granule surface has been abraded, if they are cracked or dried out, if the overall surface is lumpy, if moss covering is pervasive, or if the surface has been numerous and repeatedly patched, consider replacement. Remember that trees may stain light-colored shingles.

REPLACEMENT MATERIALS

Most asphalt shingles available today are reinforced with fiberglass. These are an acceptable replacement for the earlier felt-based shingles. For all buildings, beware of dramatic colors on the roof; they may make it more difficult to choose compatible colors for your building later.

Flashing

Flashing is the thin metal material used to prevent water penetration into the areas of your roof that are difficult or impossible to protect with the roof covering alone. Most roof leaks are caused by deteriorated flashing; leaks don't necessarily mean that the roof covering material (such as slate) is deteriorated and must be replaced.

Flashing is typically installed around chimneys, dormer windows, vents, and at the intersections of additions, porches, bay windows, and parapet walls. Copper, terne, aluminum, steel, and lead are all used for flashing. Copper has the longest life. Steel has a shorter life span than copper. Aluminum has a shorter life than steel and easily tears, twists, and punctures.

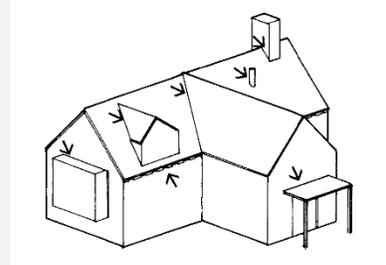


Figure 76 Typical locations for flashing installation

Check the condition of flashing whenever you are making roof repairs. If a new roof is being installed, install new flashing if the existing material is not expected to last as long as the new roof.

Options for Roofing

FIRST CHOICE

Clean and maintain gutters, downspouts, and flashing. Reattach loose shingles. Ensure that nails and other fasteners are secure and without corrosion. Fill small cracks in sheet metal with caulk or sealant - a temporary repair.

SECOND CHOICE

If less than 20 percent of the slate or wood shingles on one slope are damaged, replace the damaged or missing shingles with new shingles that match the original in material, size, shape, color, and other visual characteristics.

THIRD CHOICE

Replace damaged or missing roofing material with new material that matches the original on the prominent portions of the roof. Replace with a compatible substitute material in less prominent areas. If the roofing substrate will be replaced, be sure to re-use original undamaged materials when reroofing.

FOURTH CHOICE

If new shingles in the original material cannot be obtained, replace missing shingles with new shingles in a substitute material that conveys the same visual appearance as the original shingles. If the original shingles were varied in color, attempt to reproduce this historic color variety. If the original type of sheet metal cannot be obtained, replace the original with new sheet metal in a substitute material that conveys the same visual characteristics as that of the original.

Guidelines for Rooftop Features

Some buildings include decorative and functional elements that are attached or built into the roof that can be significant in defining the character of the building. Typical rooftop features are cresting, finials, weathervanes, cupolas, dormers, and chimneys. Follow these guidelines when treating features of this type.

- Repair rooftop features before replacing them.
- If deterioration demands replacement, replace rooftop features with features based on the original design in the original material
- Avoid removing a rooftop feature without replacing it.
- If matching the design of the historic features is not feasible, create a simplified design based on size, scale, massing, and appearance.
- Avoid adding features that will change the roof configuration.
- If elements must be added, place them on slopes of the roof not visible from the street.
- Avoid adding new rooftop features that create a false historical appearance
- New features should be compatible in size, scale, material, color, and detailing to the historic building.

Rooftop Features

CHIMNEYS

One of the main elements in the visual profile of a house is its chimney, and many chimneys were originally built to match the architectural style of the house. For these reasons, the character of a chimney should be retained when improvements are being made. Because of their exposed position, chimneys are particularly susceptible to the effects of wind, rain, and frost. Brick and stone chimneys are subject to the same problems as brick and stone walls. See [Masonry](#) (page 35) for more information. Deteriorating flashing can also be a problem. See [Flashing](#) (page 62) for more information. Even if chimneys are no longer in use, they should not be removed or replaced.

SNOW GUARDS

Snow guards, also called snowbirds, are often found on roofs of historic buildings. They were traditionally installed to prevent dangerous slides and to protect gutters, eaves, and cornices from snow and ice damage. (Some early builders installed them to increase the insulating effect of snow on the roof.) Many of these elements were decoratively designed. They are often found near the eaves at the lower edge of slate and metal roofs in staggered rows, or on steeper roofs in greater quantities. The number of snow guards used depended on the slope of the roof. Iron or copper wire was typically used.



Figure 77 Snowbirds on a slate roof

DORMERS

Avoid adding dormers to prominent slopes of the roof. If they are added on other slopes, they should be in proportion to the building. New dormers should have roof forms that match those of existing dormers, or if historic dormers are not present, the dormer roof should match the house roof or should be compatible with it. See [Windows and Doors](#) (page 43) for more information.

SKYLIGHTS

Skylights were not a part of the historic design of houses in our area. If skylights must be added, they should be added only to roof slopes that are not visible from public streets or alleys. They should be flat and their placement should be compatible with the other windows of the building. Installation should not damage historic materials.

Chimney Styles

Many buildings were designed with chimneys that matched the style of the building. Such chimneys are character-defining features and should be retained.

Chimneys on Federal-style buildings were typically tall, plain shafts, sometimes with molded caps. Sometimes two chimneys were joined to form the letter H in gable and walls. These designs were copied in the nineteenth and twentieth centuries for buildings constructed in the Colonial Revival style.



An H-shaped chimney



A Gothic Revival chimney



A Queen Anne chimney

Gothic Revival chimneys were often divided into a base, middle, and cap. They often had round or octagonal shafts, and were treated with patterns or brickwork. Multiple stacks might be grouped together on a platform.

Queen Anne chimneys used unusual shapes, fanciful embellishments, modeled brickwork, protruding shelves, variegated patterns, Pilasters, and string-courses. This degree of detail added to the visual complexity of the designs of this time period.

Where the Roof Meets the Wall

The part of the building where the roof meets the wall is often treated with ornamental elements. Sometimes elaborate, often simple and refined, these elements contribute significantly to the character of a building. They may include simple boards, moldings, panels, cornices, brackets, and ornamental brickwork. Gables, the upper portion of a wall at the end of a roof extending from the eaves to the ridge, often include these elements as well. In addition, gables often incorporate windows and vents and related trim, siding and/or shingles, bargeboards, finials and other ornamental details.



Figure 78 Gable Ornament

All of these elements are subject to weather damage, especially from water entering at the joint between the wall and the cornice or molding materials. Due to the distance from the ground to these elements, this damage often goes undetected. See the sections of this manual on windows, wooden walls, and masonry walls for additional information on deterioration and treatment.

Do not remove these elements simply because pieces are missing or damaged. Instead, look for replacement pieces or stock elements that could be used as substitutes. Never cover these elements with aluminum, vinyl, or other materials. This hides the important architectural elements and increases deterioration.

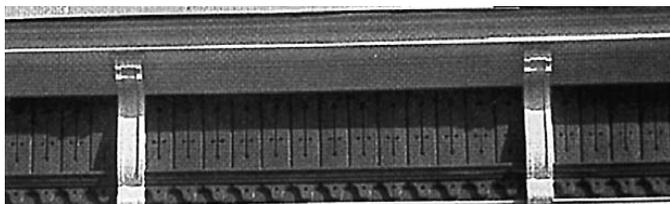


Figure 79 A detail of a cornice

Gutters and Downspouts

Gutters and downspouts have been used for decades to carry water off the roof and away from the building. Some early 19th century houses were equipped with built-in gutters. If your house has them, they are the best option for removing water from your building. Make every effort to keep the system in operating condition.

Gutters and downspouts have been made of wood, copper, galvanized steel, aluminum and vinyl. Historic wood and copper gutters and downspouts are relatively rare and should be preserved. Copper gutters are durable, don't need painting and take on a natural patina that protects them from deterioration. Galvanized steel with soldered joints is more economical than copper. Aluminum is less durable than steel and dents easily. Vinyl becomes brittle and may fracture in cold temperatures.

Gutters with half-round profile are more appropriate for historic structures than the K-style profile. Plain round / rectangular downspouts are more appropriate for historic buildings than corrugated ones.

Regularly cleaning gutters and downspouts, patching holes, and mending broken or loose elements will protect the roof and associated features. If additional gutters and downspouts are required, they should be installed on walls that are not readily visible from public streets or alleys. If they must be installed on main building walls, painting them the color of the adjacent building materials will help hide them.



Figure 80 Pidcock Creek Road residence



Figure 81 Carversville residence



Figure 82 Carversville residence

Exterior Color and Paint

HARB Approvals

No HARB approval is required if a property owner wishes to repaint any element of a building or structure (sliding door(s), windows, gutters, fencing, gates, garages, storage sheds, etc.) visible from the public view, with the exact color(s) previously used. An exact match in color or hue in this circumstance means “Near Indiscernible Variation in Intensity, Value, and Sheen” (flat, low-luster, soft gloss/satin, semi-gloss, high gloss). A change in paint color on any aforementioned elements of a building or structure on a property will qualify as a RRIK application to be reviewed by HARB.

Color Choice and Placement

METHODS FOR CHOOSING COLORS:

- If you want to reproduce exactly the colors used on your building in the past, you may wish to have an expert analyze chips of paint
- Alternatively, you could choose colors for your building from the range of colors that were used during the time period in which your building was built

The table on the next page outlines the colors that were typically used on buildings of the styles and periods indicated. This information can be used to:

- Choose colors for materials or elements to be added to your building, such as roof shingles and artificial siding or shutters.
- Or to select historically appropriate paint colors for your building, and to determine where to place those colors.

GENERAL GUIDELINES:

- Color can emphasize or de-emphasize architectural elements: darker colors recede and make your building look smaller; brighter and lighter colors stand out and make your building look larger.
- Color can be used to tie all the parts of a building together.
- Many houses require only two colors of paint; houses with more detail may require three colors. Few houses are ornate enough to require more than three colors.
- Appreciate the natural color of unpainted masonry.
- Pick your colors in daylight.
- Building style, period of construction, materials, and setting contribute to the appropriate choice of paint color. Consult the chart on the next page for basic color guidelines.

Repainting Your Historic House

OPTIONS

FIRST CHOICE

Sometimes, the appropriate procedure is no treatment at all. Don't repaint if cleaning is all that is required.

SECOND CHOICE

Paint only those portions of the building that have deteriorated. For example, repaint only the deteriorated trim if the walls are in good shape. Or paint only the deteriorated south wall if the other walls are in good shape.

THIRD CHOICE

Proceed with removing deteriorated paint to the next sound layer by hand scraping and hand sanding, and repaint following the guidelines in this manual.

FOURTH CHOICE

Strip all layers of paint down to bare wood. Before removing all the paint, conduct a paint analysis to obtain all historical information from the building before obliterating evidence of the historical paints and their sequence. Remove paint using chemical strippers or electric heat plates only as necessary to remove failed paint layers.



Figure 83 Peeling paint

Typical Color Combinations for Historic Buildings

Approvals are required from the HARB for paint colors, the following information is provided for those property owners who want to choose colors that were used during the period their building was constructed. See [Where to Go for Help](#) on page 159 for additional sources of information on choosing paint colors.

STYLE	BODY AND TRIM COLOR	EXAMPLES
Colonial , 1780 – 1860, Neutral, muted body colors (Colors were limited by technology)	Body: Shades of white, pale blue, yellow, gray, buff (to imitate marble prototypes). Trim: Dark green, red, brown, black, off-white. Door dark green, medium blue, black, white, dark red. Porch color similar to body.	White or yellow body, white trim, dark green shutters, gold door.
Federal , 1780 – 1840, Neutral, muted body colors	Body: Colors lighter than Colonial shades: blue, beige, light yellow, pale green. Trim: Dark green, red, brown, black, off-white. Door dark green, medium blue, black white, red. Porch color similar to body.	Beige body, white trim, black shutters.
Greek Revival , 1820 – 1860, Light colors or white for the body, to imitate the marble of Greek temples	Body: Shades of white, pale pink, yellow, blue, gray. Trim: White trim with white siding; for non-white siding: gray/blue, olive green, buff, dark bottle green, black. Shutters in green. Doors in dark green, medium blue, black, natural. Porch color similar to body.	White or yellow body, white trim, dark green shutters.
Gothic Revival , 1830 – 1880, Body colors in earth tones to blend with landscape in stark contrast to the white of Greek Revival	Body: Colors of stone, moss, and grass, like pale gray, olive, mossy greens, tan, ocher, fawn, straw, mustard. Trim: Same color as body but in a contrasting shade, darker than base color when light, lighter than base color when dark, or in dark gray, dark green/brown, creamy off-white. Shutters in a deeper shade. Door in natural wood. Porch a shade lighter or darker than the body.	Light gray body, dark gray trim, grained door.
Italianate and Second Empire , 1840 – 1855, Earth tones for body color on early houses, more vibrant colors and greater contrast later	Body: Medium colors: Light stone or earth shades; pale or deep gray, blue gray, mossy greens, tan, ocher, sand, buff. Trim: Contrasting shade of body color; creamy off-white, sand, brown, olive, gray, green, gold; shutters in brown, red, black; sash in red-brown; doors in black, natural, burgundy. Porch a shade lighter or darker than the body.	Pale beige body, darker beige trim, black door OR golden sand body, lighter sand trim, natural door.
Queen Anne , 1870 – 1910, Deeper colors emphasize mass and variety for the body. Many more colors available at this time	Body: Medium colors, warm earth tones: dark green, brown, red, gold, gray, maroon, ocher, olive, pumpkin, rose, taupe. Trim: Dark body w/ light trim or light body w/ dark trim of same color. Trim darker shade than porch, in maroon, brown, gray, green, yellow; shutters in green, red, blue; door varnished or grained. Porch in harmonious, darker shade than the body.	Light olive body, dark olive trim, red accent OR deep rose body, olive trim, deep olive accent.
Colonial Revival , after 1880, Light colors for the body	Body: Shades of white, pale blue, yellow, gray, cream, tan. Trim: Lighter than the body. White, off-white, ivory, cream; door varnished or grained. White porch.	White body, dark green trim & shutters OR tan body, white trim.
Shingle , 1890 – 1910, Muted natural tones, gray shades for the body	Body: Stained shingles. Trim: Shades of white, gray.	Silver-gray stained shingles, gray-white trim, green shutters
American Foursquare , after 1900, Natural colors for the body	Body: Olive, rust, brown, gray, gray-blue. Trim: Lighter than the body. White, pale gray, ivory. Porch color similar to body.	Olive body, olive-gray trim, natural door
Bungalow , after 1900, Dark, natural shades for the body	Body: Brown, green, gold, stained shingles. Trim: Contrasting to body. Dark reds, browns; or light yellow, gray, green, or white; door varnished. Porch color similar to body.	Brown body, pale yellow trim, natural door.

Why Your Building Won't "Hold Paint"

If you find yourself repainting your building more frequently than every 5 to 8 years, one of the following reasons may be to blame:

- There is too much moisture present.
- Your paint was applied under adverse conditions.
- Your paint was applied with inadequate surface preparation.
- There may be latex paint over oil-based paints.

EXCESS MOISTURE

Beginning in the 1940s and 1950s, new construction materials, moisture-generating appliances, improperly installed insulation, and the abandonment of lead-based paint made it more difficult to achieve a long-lasting paint job on wood siding. Periods of minimal maintenance compound the problem. Check the locations of your paint failure against the list below, and consider making the appropriate repairs to eliminate excessive moisture.

IF FAILING PAINT IS LOCATED NEAR THE ROOF LINE:

- Maintain all roof covering materials, gutters, and flashing.
- Cap unused chimneys.

IF FAILING PAINT IS LOCATED BELOW WINDOWS:

- Clear weep holes of storm windows. Maintain sills and caulking.
- Position window air conditioners so that water does not stream down the side of the building.

IF FAILING PAINT IS LOCATED OUTSIDE OF BATHROOMS, KITCHENS, OR LAUNDRY ROOMS:

- Keep relative humidity below 40 percent inside your home. Consider installing a dehumidifier if necessary.
- Ventilate bathrooms, kitchens, laundry rooms, and clothes dryers to the exterior of the house.

IF FAILING PAINT IS LOCATED NEAR THE GROUND:

- Move shrubbery that is too close to the house.
- Be sure that wood does not come in contact with the soil.
- Be sure that all ground and walkways are sloped away from your building. Be sure that downspouts and splash blocks are positioned to carry water away from the building.
- Consider damp proof courses and below grade waterproofing with the assistance of a trained professional.

Repainting

DECIDING WHEN TO PAINT

You DON'T Need to Paint If:

- There is no peeling, blistering, flaking, or chipping
- The building is only dirty
- The color is only fading
- A color change is all that is wanted. (Excessive layering is a primary cause of failure)
- Your stone, brick, or stucco building has never been painted. Painting can damage these buildings

You DO Need to Paint If:

- There is excessive peeling or other paint failure (but consider touch-up, if failure is contained in a small area). If the paint is thicker than 1/16 of an inch (approximately 16-30 layers), the paint should be removed down to the bare wood. See the Paint Problems and Causes table in the Appendix for more information
- If the wood is bare. Exposed wood should never be left unpainted

Remember:

Paint only the parts of the building that need to be painted. Don't paint if the existing paint is in good condition. If the trim is the only part showing signs of wear, paint only the trim.

Did You Know?

Many old masonry buildings are made of soft bricks that were meant to be painted. Some were painted to hide poor quality brick or stone. Removing the paint from these buildings would drastically change their character and cause the bricks to erode.

IF FAILING PAINT IS NOT CONCENTRATED IN ANY SINGLE LOCATION:

- Properly treat all wood or masonry.
- Maintain all surface coatings on wood elements.
- Regularly inspect and maintain all mortar joints.
- Keep relative humidity below 40 percent inside your home. Consider installing a dehumidifier if necessary.
- Avoid making your house completely airtight.
- If walls or attics have been insulated, check to be sure that an effective vapor barrier was installed.

PROPER CONDITIONS FOR PAINTING TEMPERATURE AND WEATHER

Weather conditions can dramatically affect your paint job. Paint should be applied when the temperature is between 50 and 90 degrees, and at relative humidity levels below 60 percent. Painting in direct sunlight can also ruin a paint job; it is best to paint in the shade. Always paint according to the manufacturer's directions.

SURFACE PREPARATION

If excess moisture or weather conditions are not causing your paint to fail, your surface may not have been properly prepared. The surface must be clean and free of loose paint. Harsh or abrasive methods should never be used to clean the surface or to remove the paint. Such methods involve considerable risk because they can remove the outermost surface of the material, speeding future deterioration, and they can destroy delicate detailing.

AVOID USING THESE ABRASIVE METHODS

Pressure washers, rotary grinders, open flame torches, sandblasting, or chemical stripping

USE THESE METHODS INSTEAD

Hand cleaning, light hand sanding, or hand scraping

See [Paint Problems and Causes](#) on Page 168 for more information.

TIPS FOR PREPARING A SURFACE FOR PAINT

- Only paint a clean surface. Use household detergent, water, and a natural bristle brush
- After cleaning, always dry, treat, and prime all surfaces first
- Wood that is very dry may not accept paint well. An application of boiled linseed oil, cut 50 percent with paint thinner or turpentine, can condition the surface for painting with an oil-base primer
- New cedar clapboards may require a light sanding
- If preparation involves lead-based paint, call the National Lead Information Clearinghouse at 800-424-LEAD

Repainting

BEFORE YOU REPAINT, LOOK AT YOUR PAINT AND ASK THESE QUESTIONS:

1. What kind of paint failure is evident? Is it chipping, peeling, or blistering?
2. Where is the paint failure? Is it under the roofline, or is it outside the bathroom?
3. How has the paint been applied in the past? (Infrequently, with poor quality products, or on the hottest day of the year?)

Answers to these questions can help you determine the cause of paint failure and help your next paint job last longer.

REMEMBER:

Only after thoroughly inspecting all the painted elements of the exterior of your building, and identifying each paint surface condition and cause of deterioration, can an appropriate program be developed to remedy exterior paint problems.

Oil or Latex?

WHAT'S THE DIFFERENCE?

Oil paints have a linseed oil base that penetrates the surface of wood and seals it against moisture. Modern oil-based paints generally have a much lower linseed oil content than historic paints. Alkyd resins have replaced the oil in these cases. Preservative, penetration, adherence, and durability qualities are generally better with oil paints, but they are harder to clean up than latex. Oil paint is the type found on most historic houses; until about 1970 it was the only paint used.

Latex is a modern paint that is water based. Recent manufacturing techniques are improving these paints. Latex breathes more than oil and allows moisture in masonry to escape; however, it exerts more tension on the underlying surface and can pull underlying layers of oil paint away from the wood.

WHICH SHOULD I USE?

- Oil over latex can lead to serious problems. Opt for oil over oil and latex over latex; however, environmental regulations may complicate this rule. If changing from oil to latex becomes necessary, see below.
- If you paint latex over oil, completely prime the old surface with an oil primer that is compatible with your top coat of latex. The oil primer will bond to the old surface and provide a new, flat surface for your latex. If you must use a latex primer over the oil, be certain that all dirt, chalk, and gloss are removed from the old surface before beginning.
- Once you use latex, you can't go back to oil without removing all layers of paint down to the bare wood.
- Oil paints are good for hard-use items.

Clear Finishes and Stains

Clear finishes and stains are not appropriate for wood surfaces that were historically painted. New wooden elements added to historic buildings, such as replacement porches, should always be painted. Shingles that were historically stained, such as those on upper stories of bungalows, should not be painted. Pressure treated lumber should be painted after weathering approximately one year. Avoid using sealers or waterproof coatings on masonry walls; they have been found to speed masonry deterioration and increase moisture problems. If paint must be used to protect damaged masonry (for example, brick damaged by abrasive cleaning), use only vapor permeable (breathable) masonry paints.

Repainting

REMOVING PAINT

WHEN SHOULD ALL LAYERS OF PAINT BE REMOVED FROM WOOD?

- When painted exterior wood surfaces display continuous patterns of deep cracks.
- When extensive blistering and peeling reveal bare wood.
- When windows, shutters, or doors have been “painted shut.”
- When new wood is being pieced in and a smooth transition is required.

WHEN SHOULD ALL LAYERS OF PAINT BE REMOVED FROM MASONRY?

- If a masonry building was not painted historically, and if the paint is damaging the building.

Guideline

Remove paint from historically painted surfaces only to prevent deterioration. Remember to remove deteriorated paint to the next sound layer using the gentlest means possible.

WARNING!

Any method that can remove paint can harm you and your building if not used properly.

For More Information See These Sections:

- [Paint Problems and Causes](#) (Page 168)
- [Masonry Walls](#) (Page 35)
- [Wood Walls](#) (Page 32)
- [Water and Your Building](#) (Page 30)



Figure 84 Windy Bush Gallery, Route 232



Figure 85 Carversville General Store

Commercial Buildings & Signs

Today, the small commercial districts in our area are composed of buildings originally constructed for commercial purposes or for a combination of commercial and residential uses, and buildings originally constructed as residences that were later converted to commercial use.

Because these buildings have different origins, they may require varying treatments. However, careful coordination of all these buildings can enhance the appearance of the districts.

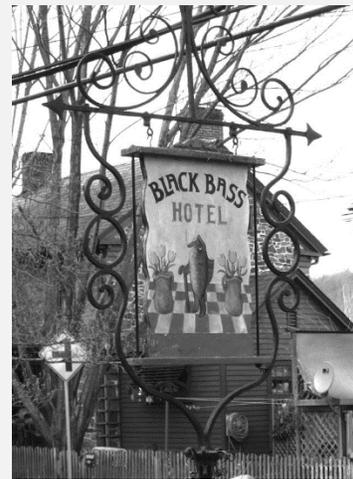


Figure 86 Black Bass Hotel, Lumberville

Signs

Signs are important parts of commercial buildings, both from a visual and financial perspective. A clever, carefully design sign can make a good first impression and can attract customers. A confusing, ordinary sign can detract from the appearance of a building and can turn customers away.

The guidelines presented in this section are meant to help property owners design and select new signs that are compatible with their historic buildings, while meeting the needs of modern business. In addition to following the guidelines in this manual, all signs installed in Solebury Township must meet the provisions of the Zoning Ordinance. For more information, call the Zoning Officer at (215) 297-5656.



Figure 84 River Road Shop



Figure 85 Phillips Mill Inn, River Road

Guidelines for Historic Signs

- If a historic sign cannot be retained in the original location, consider moving it to a different exterior location (ensuring that the sign and the building are not damaged), or move the sign inside where the public can see it.
- If a historic sign cannot be retained, consider donating it to a museum, preservation group, or salvage yard.
- Coordinate new signs with existing historic signs by using compatible sizes, shapes, colors, lettering, and location.
- Make provisions for the protection of historic signs when the building is undergoing maintenance.

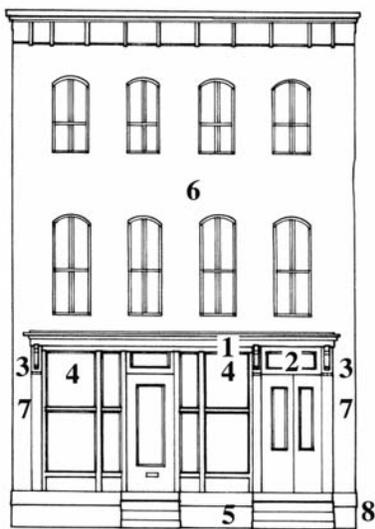
HISTORIC SIGNS ARE PARTICULARLY IMPORTANT IF:

- They are associated with historical figures, events, or places.
- They identify the history of the product, business, or service associated with the building, district, or area.
- They reflect the history or development of the building or the district.
- They are good examples or are characteristic of period signs or sign craftsmanship (i.e., gold leaf, neon, etc.)
- They are integral to the fabric of the building (i.e., Carrara glass, carved stone, tile floor, etc.).
- They are local landmarks.

Sign Position

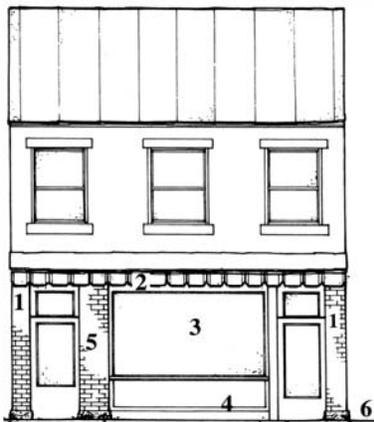
The diagrams that follow identify the various appropriate locations for signs on buildings. Locations are identified for buildings that were originally erected as commercial or business buildings, and for buildings that were originally built as houses but are now used for commercial purposes. Signs of every type pictured may not be appropriate for your building. The size and number of signs allowed are determined by the Solebury Zoning Ordinance.

SIGNS FOR COMMERCIAL BUILDINGS



(1) Under storefront cornice; (2) Hanging parallel to the front wall over a recessed entry; (3) Hanging from a bracket perpendicular to front wall, below second story sill level; (4) Paint, vinyl, or etching on window(s); (5) Temporary, moveable, freestanding sidewalk signs; (6) In some cases, painted on upper portions of masonry walls; (7) Attached flush to the building; (8) Freestanding or ground sign when space permits. Signs may also appear on the lower flap of an awning.

SIGNS FOR RESIDENTIAL BUILDINGS



(1) Hanging from a bracket perpendicular to front wall, below second story sill level; (2) On lower flap of fabric awning; (3) Paint, vinyl, or etching on window(s); (4) Temporary, moveable, freestanding sidewalk signs; (5) Attached flush to the building; (6) Freestanding or ground sign when space permits.

Guidelines for Attaching a Sign to a Building

The method of attaching signs to buildings must be carefully considered to minimize damage to historic materials.

- Choose methods that allow holes to be appropriately patched if the sign is removed. When possible, mount signs in mortar joints, not in masonry, so holes can be patched if the sign is removed.
- If holes or hardware remain in the building from previous signs, attempt to place the new sign in the same location.
- Place signs so that significant architectural details and features, including transom glass, remain visible.



Figure 86 Lumberville Store, Lumberville



Figure 87 River Road Outbuilding



Figure 88 Solebury Outbuilding



Figure 89 Lime Kiln on Upper York Road

Outbuildings, Site, and Landscaping

Although most of a property owner's attention is typically focused on the residence or other main building on a site, secondary structures and site amenities often stand as part of a coordinated design that includes the entire building lot. The elements that surround a building are often essential to the character of the site and the neighborhood.

Secondary structures, or outbuildings, of a property may include barns, carriage houses, garages, summer kitchens, and sheds. Site amenities typically found on a historic property include fences and gates, driveways, walkways, landscaping, and retaining walls. Sometimes these elements are combined specifically to achieve a certain orientation or to maintain an important view. Retaining and maintaining these elements enhances a property's historic character.

Outbuildings

Outbuildings that remain in Solebury contribute to our understanding of the township's history and character. Some outbuildings reflect the style of the main building on the property. Well into the first half of the 20th century, many garages were built with detailing to match the residence. Siding, brackets, ornament, rooftop structures, or even the overall shape of the structure, were duplicated to strengthen the relationship between the main building and the secondary building.

Outbuildings that date to the construction of the original property reflect an important part of the overall design concept for that property and should be retained. As some properties evolved over time, outbuildings were constructed to accommodate new uses. This practice illustrates the evolution of the property and such structures may also be significant.

GUIDELINES FOR MAINTAINING OUTBUILDINGS

- Significant outbuildings should be treated as carefully as the main buildings they were meant to serve
- All maintenance and repair issues that pertain to the main building on the site also apply to outbuildings
- Significant details of outbuildings, such as multi-pane windows, lovers, rooftop elements (cupolas, weathervanes, cresting, etc.), doors (including pedestrian doors, overhead doors, sliding doors, etc.), wood siding, slate roofs, masonry walls and foundations, should not be overlooked



Figure 93 Solebury outbuilding

Outbuildings are significant if:

- The outbuilding dates to the original construction of the property
- The outbuilding was constructed after the main building on the site, but was erected to house a function important to the use of the overall property, or it illustrates an event or personage important to the overall property
- The outbuilding is a good example of a style of architecture or method of construction, or if it incorporates distinctive characteristics of form, style, or detailing
- The outbuilding possesses a strong relationship in form, style, detailing, use, or association with other structures or uses of the site



Figure 94 Solebury spring house

Removing Outbuildings

Because outbuildings are often important components of the overall property, removing them from the site should be avoided. Property owners should consider the relationship between the outbuilding and other buildings and site elements, the view that will result from the removal of the building, and the overall condition of the outbuilding. If the outbuilding is a significant part of the property (see the previous page), demolition should only be considered if at least half of the structure is beyond repair. Prior to any demolition, contact the HARB administrator at (215) 297-5656 and see the section on [Demolition](#) on page 93 of these guidelines.

OPTIONS:

FIRST CHOICE

If the outbuilding is significant to the historic character of the property, it should be reinforced, repaired, and retained. Stabilization of the structure for potential use by later owners should be considered.

SECOND CHOICE

If more than half of the structure is too deteriorated to repair, including exterior siding, roofing material, structure, windows, and doors, and if the structure poses a threat to safety, these guidelines should be followed:

- The structure should be documented in photographs and drawings before demolition. The construction methods, materials, and details of the building, as well as the relationship between the outbuilding and other elements of the site, should all be included in the documentation.
- Steps should be taken to ensure that the demolition process will not damage other historic structures or features that remain on the site.
- Consideration should be given to reusing the disassembled materials for other appropriate construction projects (possibly for repairing parts of other buildings on site, if constructed of the same material), or to the disposal of the materials at an architectural salvage yard.

Guidelines for New Outbuildings

- Because outbuildings were constructed to accommodate new uses as the main building and site evolved over time, new outbuildings for historic properties will be considered by the Solebury HARB
- Historically, outbuildings were located at the rear of the main property, away from the main entrance and the important elevations of the main building. This practice should be continued for new outbuildings
- Outbuildings were designed to coordinate with the main building and other buildings on the site. New outbuildings should be simple in design and should coordinate with the main structures through the use of compatible building form, roof form, historic materials, and detailing
- When constructing new outbuildings, no damage should be caused to other site elements



Figure 90 Stone garage, Phillips Mill Road

Fences

Fences were first built for security. A securely built fence protected people and their possessions from predators - both animal and human. When security issues grew less demanding, fences were erected to mark property lines. They have been used traditionally as a barrier between the yard and the sidewalk, between the yard and the street, or between adjacent yards.

Early fences in Solebury were usually rough vertical boards, or post and rail, particularly alongside and rear yards, or where a large part of the property bordered a road. By the mid-19th century, some properties used a more finished wooden fence that incorporated pickets. Such fences gradually became more regular in construction and eventually incorporated pickets and gates of sawn designs. These fences continued to be used for years.

Cast iron fences became popular in the late nineteenth century. The nature of the material allowed extravagant, ornate designs. Wire fences (with wooden posts) were also used from the mid-nineteenth century. Wire allowed a certain level of ornamental design at a much more affordable cost, and was appropriate for more modest properties.

Wood, wire, and cast-iron fences are still available today; their use is encouraged for historic properties. More recent fence materials, including chain link and vinyl, are not appropriate for historic properties because they have no historic character.



Figure 96 Blending old and new on Creamery Road

Site Guidelines for New Fences

- Simple designs are encouraged for fences on historic properties
- Most historic fences were low and transparent. These characteristics should be duplicated in new fences visible from public streets and alleys
- Fences should scale appropriately in relation to the house
- Simple wooden fences with vertical picket designs are preferred for properties whose main structure dates after 1850. Horizontal boards and split rails are generally not appropriate for the fronts of historic properties
- Iron fences may be used for properties whose main structure dates after 1850
- Elaborate fences should not be installed without clear evidence that they existed previously
- Chain link or Deer Fencing is inappropriate for historic properties. It should not be used where it is visible to the public. It is acceptable at the rear or sides of a property that are not visible from the public way. The use of ivy, vines, or other plant materials to cover or screen the chain link is encouraged



Figure 97 "Heart" wrought iron fence

GUIDELINES FOR FENCES AND HISTORIC PROPERTIES

- If historic fences remain on the property, they should be maintained and retained so that they may continue to enhance the historic character of the overall property.
- If portions of historic fencing are missing or beyond repair, new pieces that match the historic material should be installed.
- If an entire historic fence is beyond repair and must be replaced, the new fence should match the historic fence in material and detailing, although a new simplified design based on the historic design is acceptable.
- If a new fence is to be installed where one currently does not exist, the design of the new fence should be based on photographic documentation of a previously existing fence.
- If a new fence is to be installed where none currently exists and no historic documentation exists, the new fence design should be simple and should follow the guidelines in the sidebar to the left.
- Fences and grocers' alley gates should be retained and maintained.

Driveways, Walkways, & Paving

Some historic properties include driveways, walkways, paths, and parking areas that were part of the overall design concept for the property. Most residential properties include a simple walkway to the front entrance and a driveway from the street to the side of the house or to a garage at the rear.

GUIDELINES FOR EXISTING DRIVEWAYS, WALKWAYS, AND PAVING

- Existing driveways, walkways, paving, and related features that date to the original construction of the property or to later significant alterations should be retained and maintained.
- Existing driveway configurations should be maintained unless historic documentation indicates that a different configuration is more appropriate.
- If historic paving materials remain, they should continue to be retained and maintained. Consideration should be given to restoring the entire pathway to its original condition.

Site



Figure 91 Dry stone wall



Figure 92 Deer fencing

Parking Areas

PLACEMENT GUIDELINES FOR NEW PARKING AREAS

The guidelines that follow can help make new parking areas more compatible with Solebury's historic districts. All new parking areas must also conform to the requirements of the Zoning Ordinance. For more information on the Zoning Ordinance, contact the Zoning Officer at (215) 297-5656.

If an additional parking area is required to accommodate a new use for a historic building, the HARB will consider the addition of a parking area according to the following guidelines:

- Parking lots should maintain the predominant setback on the street
- Parking areas should not be constructed between the street and primary facades of buildings
- Parking areas should be located on a portion of the site that is not readily visible from the public way or from important spaces within the building
- The placement of parking areas should maintain important views to or from the site or the building
- Parking areas should be located so that no significant site or landscaping features are destroyed, damaged, or otherwise negatively affected, and so that the historic relationships among elements on the site are not destroyed
- Plantings, including trees and hedges, can be used to make parking areas more compatible with historic surroundings. Consider plantings along the edges of parking areas to shield the parking area from view and to maintain setback lines, as well as on islands within larger parking areas

GUIDELINES FOR EXISTING PARKING AREAS

- Existing parking areas should not be enlarged.
- If existing parking areas are placed in prominent locations on historic properties, they should be shielded from view with appropriate plantings.



Figure 100 Side parking area

Site Parking Area Placement

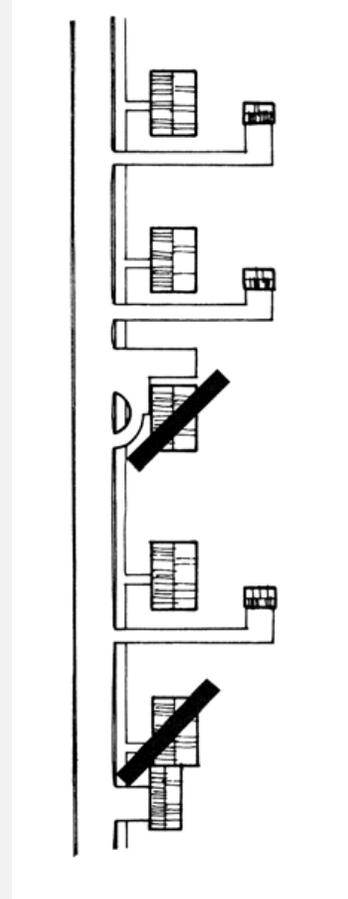


Figure 101 The placement of new parking areas should be compatible with the predominant placement on the site

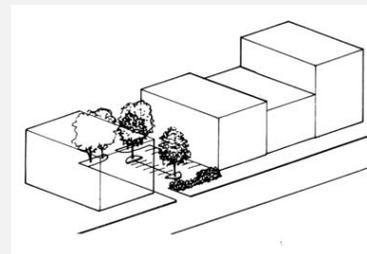


Figure 102 Parking lots should maintain setbacks and use plantings to soften their appearance and increase compatibility

Siting, Orientation, and Views

Buildings, old and new, are typically located on a site with a specific orientation. Most buildings in our area are oriented so that the front entrance faces the main street. Other buildings are situated so that a specific view may be seen from a particular window, so that prevailing winds are blocked by trees, or so that the sun will warm a particular room. When orientation and siting were part of the original design concept for a building, these elements should be maintained. As alterations, additions, and construction projects are considered, the guidelines below should be followed.

GUIDELINES FOR SITING, ORIENTATION, AND VIEWS

- Preserve the main entrance to a building if a new entrance must be added for a new use. Avoid removing doors and stairs, and avoid filling in the opening with new materials.
- New buildings should reflect the orientation of buildings in the neighborhood. For example, if all buildings on the street have main entrances on the front wall and automobile access from the side, avoid constructing a new building with a driveway from the street leading to a side entrance.
- Alterations and additions should maintain the siting of the historic structure. For example, avoid constructing an addition that gives a building the appearance of being set at an angle to the street if all other buildings are set parallel to the street.
- When making alterations or building additions, maintain important views to and from the site.
- Alterations and additions should maintain an accurate sense of historical development for each individual property. Avoid adding elements that suggest that the property is older than it is. Avoid adding elements that are out of scale or otherwise inappropriate to the setting.

NOTE: For more information on new buildings and additions, see the next chapter.

Siting and Orientation

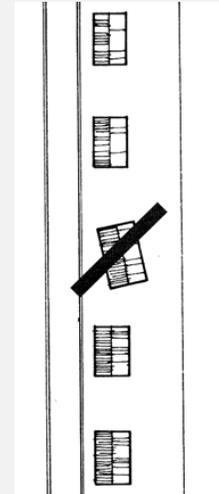


Figure 93 New buildings should reflect the predominant orientation of buildings in the neighborhood. Unusual orientations create a dramatic break in the historic streetscape.

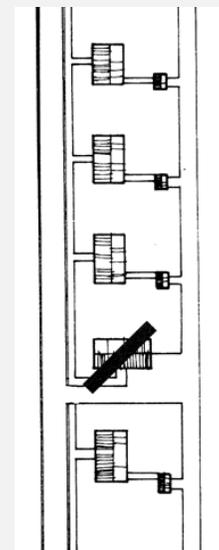


Figure 94 The proper placement of entrances and driveways can increase the compatibility between new buildings and existing ones. Placing entrances and driveways in locations not represented on the street breaks the continuity of the streetscape.

Landscaping

Landscaping features, including trees, shrubs, gardens, plantings, fields, and terracing, can contribute significantly to the overall appearance of a property. Some properties were landscaped at the time the buildings on the site were constructed. If historic landscaping materials are present, they should be retained. (See below.) If other prominent landscape elements are present, they should also be retained. These may include large trees, extensive plantings, and any other highly visible elements that have become recognized features in the streetscape or landscape. Solebury Township's HARB does not regulate landscaping, but HARB and the township's Zoning Ordinance do regulate retaining walls. For more information, call the Solebury Township Zoning Officer at (215) 297-5656.

TO DETERMINE IF HISTORIC LANDSCAPING MATERIALS ARE PRESENT

- Look for unusual changes in texture or color of plant materials
- Look for trees in rows or clumps
- Look for exotic plants in unexpected locations, which may identify the location of an earlier planting bed
- Check historic photographs.

GUIDELINES FOR EXISTING LANDSCAPE ELEMENTS

- If historic landscape materials are present, retain and maintain them. Replace them in kind when necessary
- Maintain existing trees whenever possible
- Plant new native trees to replace lost trees
- Tree stumps should be ground down or removed
- Avoid removing landscape features without replacing them
- Avoid relocating historic landscape features

GUIDELINES FOR NEW LANDSCAPE ELEMENTS

- Avoid radically changing the grade level of a site, especially when site drainage will be adversely affected
- Place landscaping elements a sufficient distance from the foundation to avoid potential water damage
- Water should be made to flow down and away from the building foundation
- New landscape elements should not hide the walls of historic buildings or important architectural details
- New retaining walls should be built with traditional masonry materials. Railroad ties and pressure-treated lumber are not appropriate if visible from a public street or alley
- Plantings should be maintained regularly. Uncontrolled growth can damage historic materials

The Landscape Around Your Building

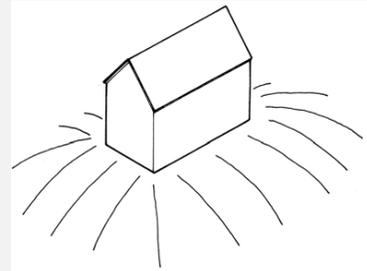


Figure 95 Make sure the ground slopes down and away from your foundation to ensure that water flows away from your building, not into it.

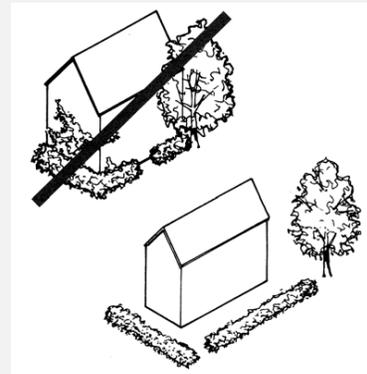


Figure 96 Avoid placing landscape elements too close to the foundation. They can encourage water retention and water damage.

Decorative or non-decorative permanent objects, whether natural or man-made, which were not part of the original architecture design and which would be visible from the public way, should be appropriate, not prominent or distracting and should not detract from the natural character and view of the building, property or neighborhood.



Figure 97 Utilities Fenced In



Figure 98 Enclosed Utility Box



Figure 99 Partially Exposed Utility Box

Utilities and Accessibility

As time goes by, modern improvements, contemporary conveniences, and enlightened thought enhance our quality of life. They also affect our historic buildings.

Improvements in alternate fuel sources, telecommunications, electric, gas, solar panels, and water service, as well as in heating and air conditioning, have made living spaces much more comfortable year-round. However, these conveniences visually and physically alter structures and streetscapes with wiring and equipment.

Better and more widely distributed information has made us aware of the needs and requirements of persons with disabilities, and of their right to participate more fully in the experience of historic structures. This enlightenment presents us with the challenge of making our historic resources accessible without destroying the character that makes them special.

Utilities

Because utility meter boxes, air handling units, and other service equipment are so common, the appropriate placement of these objects on historic buildings is often overlooked. Historically, service equipment was placed near the service entrance, which was located at the rear or side of the building. This placement on unobtrusive walls of buildings should be continued.

There are two options for the placement of service equipment:

1. Attached to wall
2. Located on the ground

Appropriate placement depends to a great extent on the type of equipment being installed. However, in all locations, the key to compatibility with historic resources is concealment.

METHODS OF CONCEALMENT

- Locate equipment on rear or inconspicuous side walls.
- Plant vegetation to hide equipment on the ground or on the wall. Coordinate new vegetation with old.
- Erect appropriate fencing to shield equipment on the ground. Coordinate all fencing on the property.
- Paint wall-mounted equipment to blend with the wall.
- Set rooftop equipment back from the edge of the roof to reduce visibility from the street.
- Additional guidelines for service equipment are listed in the following material.

METER BOXES

Utility meters, wires, piping, boxes, and related equipment should be installed in unobtrusive locations on rear or secondary walls.

What to Do with Dumpsters

- Dumpsters should be located at the rear of the building or on inconspicuous sides of the building
- Dumpsters should not hide or damage significant historic features of the building, site, or landscape
- Dumpsters should be placed in locations that are easily accessible to all users, including trucks, so that potential damage to the building is minimized
- Wooden fences can be used to hide dumpsters



Figure 100 Mechanical equipment hidden behind a landscaped fence



Figure 101 Mechanical equipment hidden behind a landscaped fence

MECHANICAL EQUIPMENT

(including air handling units, vent stacks, chillers, condensing units, elevator equipment, rooftop access equipment, generators, fuel tanks, etc.)

- Grade-mounted mechanical equipment should be restricted to rear yards and inconspicuous side yards, and should be shielded with plantings or appropriate fencing
- Keep what cannot be concealed at the rear of the house
- Equipment should not be placed on residential roofs. On other buildings, all rooftop equipment should be screened and recessed from the edges of the roof to minimize visibility from the street
- If additional mechanical equipment is required at the interior, avoid dropping ceilings across window openings to accommodate it
- Do not overload the building structure with the weight of new equipment, particularly on the roof and in the attic

SATELLITE DISHES AND ANTENNAS

- Satellite dishes should be minimal in size
- Satellite dishes should be attached to rear or inconspicuous side walls of buildings. Locations that are not visible from the street are preferred
- Satellite dishes should be attached to buildings using methods that do not cause damage to building materials or to historic features
- Antennas that are no longer functional should be removed

SOLAR PANELS

Solar panels should be screened from the public view. Solar panels and field arrays are better suited for secondary, rather than primary, structures or in an area of the property such that they are not or are minimally visible in the public view due to position of or installation of screening. The panels effect on the quality of the view from adjacent properties should be considered. All applications will reviewed on a case by case basis.

Utilities

WINDOW AIR CONDITIONERS

- Window air conditioners should be installed on rear or secondary walls, rather than primary walls
- The use of window air conditioners should not result in the removal or replacement of window sash or in the alteration of damage of any window materials
- Through-wall air conditioners are inappropriate for historic buildings. Avoid cutting through walls or removing other historic materials to add mechanical equipment

PRIORITIES FOR SERVICE EQUIPMENT

- Relocate all overhead wiring underground, possibly in conduit
- Relocate meter boxes and related equipment to unobtrusive locations
- Increase landscaping to hide mechanical equipment
- Use shutters, operable windows, porches, curtains, awnings, shade trees, and other historically appropriate non-mechanical features to reduce heating and cooling needs
- Service equipment regarding generators and tanks need to be screened.

Accessibility

Historically, buildings and landscapes were not designed to be readily accessible for people with disabilities. With the passage of the Americans with Disabilities Act in 1990, access to properties open to the public is now a civil right. The goal is to provide barrier free access that promotes independence for disabled persons to the highest degree practicable, while preserving significant features of the historic resource. Building accessibility for individuals with disabilities should be achieved without compromise to historic materials or to character-defining elements of historic buildings and sites. Each case is individual, but the guidelines below should be followed.

GUIDELINES:

- Seek to provide barrier free access that promotes independence for disabled persons to the highest degree practicable while preserving historic features
- The design of new ramps should be compatible with the original structure and the overall site
- Compatibility can be achieved through appropriate location. Ramps and elevators should be located on rear or secondary walls
- Increase the compatibility of new ramps by constructing them of materials equal to or similar to the materials of adjacent stairs and walks
- Consider providing barrier-free access through removable or portable ramps, if installing permanent ramps would damage distinctive historic features
- Utilize landscaping elements to shield ramps and elevators

FOR MORE INFORMATION

See [Where to Go for Help](#) on page 159.

Accessibility

PROCESS FOR IMPLEMENTING ACCESSIBILITY MODIFICATIONS

1. Review the historical significance of the property and identify character-defining features. Alteration of these features should be avoided when making changes or additions for accessibility.
2. Assess the existing and required levels of accessibility. Identify all barriers in the structure and on the site. Review all local codes and state and federal laws.
3. Evaluate accessibility options within a preservation context. The goal is to provide a high level of accessibility with minimal impact on the historic property.

NOTE: Seek the assistance of preservation professionals, code officials, and persons with disabilities. The expertise of each will be critical in determining the full range of options for accessibility.

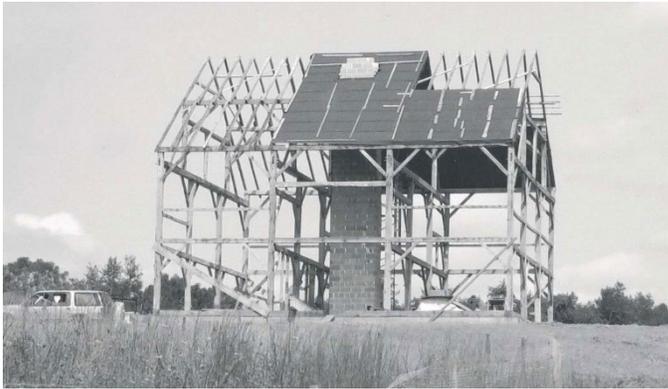


Figure 102 A barn residence goes up in Carversville



Figure 103 New residence on Lower Mountain Road



Figure 104 Solebury Trinity Episcopal Church

New Construction, Additions, and Demolition

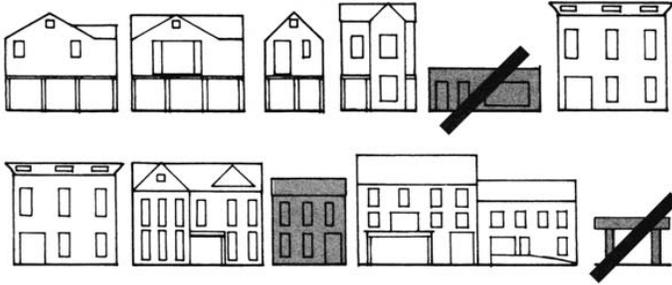
New construction is a sign of economic health and community vitality. But it leaves an indelible mark on our communities. New buildings and additions can dramatically change the appearance of a neighborhood. For this reason, new construction and additions should be compatible with historic buildings. They should not pretend to be historic or duplicate historic buildings, lest they diminish the importance of the historic buildings. New construction and additions should achieve compatibility through appropriate massing, shape, size, materials, etc.

TOWNSHIP REGULATIONS

In addition to the review provided by HARB for new construction and additions in the historic district, there are other regulatory considerations to be taken into account for such projects. Building codes and zoning regulations of the township must also be met. For more information on these requirements, contact the Zoning Officer at (215) 297-5656. In addition to the township's requirements, the county has regulations that must also be met.

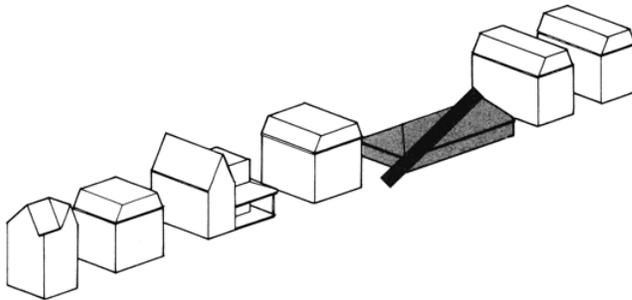
Compatibility Issues

New construction in the historic districts of Solebury Township should relate closely to buildings in the immediate neighborhood. In the following diagrams, buildings that are shaded represent new construction.



SIZE, SCALE, PROPORTION

New construction should relate to the dominant proportions, size, and scale of buildings in the district. New construction should not exceed the height of buildings in the district by more than 10 percent. Long, low buildings are inappropriate amid taller structures.



SHAPE AND MASSING

New construction should incorporate massing, building shapes, and roof shapes that are present in surrounding buildings.

MATERIALS

Building materials should be compatible with those of the surrounding buildings. Traditional materials that are common in the area, such as wood, brick, and stone, are preferred.

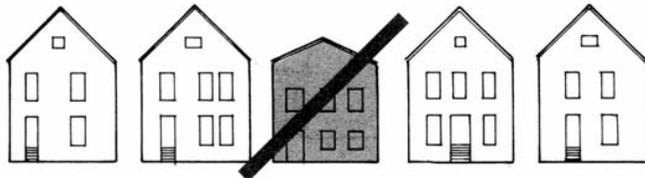
Guidelines for New Construction

- New construction should be compatible with historic buildings, while maintaining a contemporary appearance.
- New buildings should not visually overpower surrounding buildings.
- New buildings should not duplicate the design of nearby historic buildings.



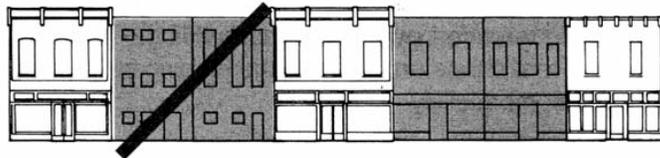
PATTERNS AND RHYTHM

The rhythm of facades along the street and components thereof should be maintained. Large buildings can be divided into bays to reflect neighboring rhythms.



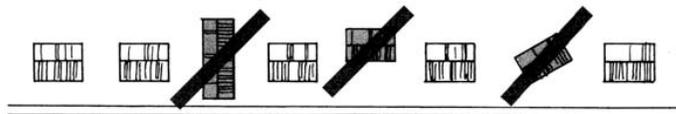
CORNICE AND FLOOR-TO-FLOOR HEIGHTS

New construction should use window and door openings of design and size typical of those of historic buildings in the immediate neighborhood.



WINDOWS AND DOORS

New construction should use window and door openings of design and size typical of those of historic buildings in the immediate neighborhood.



ORIENTATION AND LOCATION

Principal facades of new construction should face the same direction as the rest of the buildings on the street. The prevailing setback line at the street should be preserved. For more information, see the previous chapter.

Excavation and Archaeological Resources

If your building project will involve substantial excavation under or adjacent to an existing building, or to a previously undisturbed area, there may be potential to discover archaeologically important resources. If you will be excavating in any such area, or if work has begun and you uncover what seems to be an important archaeological resource, call the township Zoning Officer at (215) 297-5656.



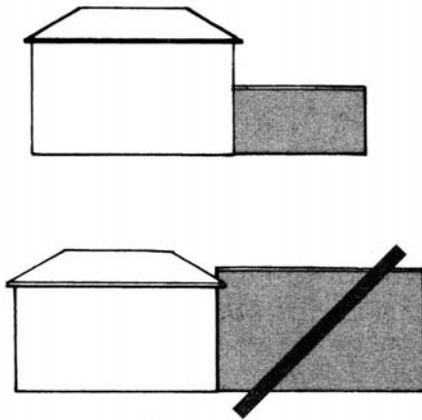
Figure 105 Friends Meeting Cemetery

Compatibility Issues

An addition to a historic building should relate closely to the existing building, while maintaining the visual prominence of the historic building. In the following diagrams, shaded buildings represent additions.

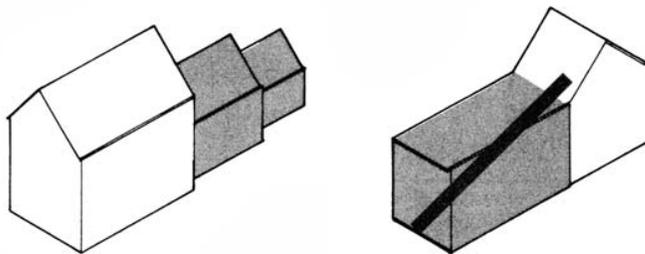
SIZE, SCALE, AND PROPORTION

The height and width of an addition should not exceed that of the historic building.



SHAPE AND MASSING

Additions should incorporate massing techniques used in the historic building. Using the dominant roof shape and pitch of the historic building will increase compatibility.



MATERIALS

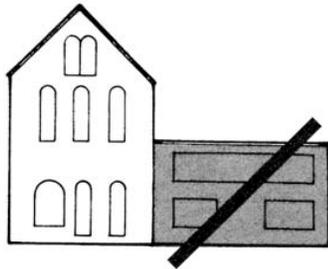
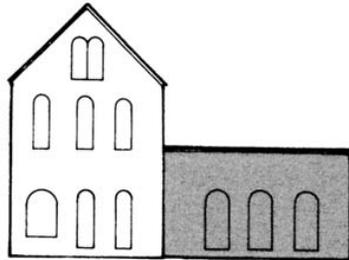
Building materials should be compatible with those of the historic building. Traditional materials are preferred.

Guidelines for Additions

- Construct additions to minimize the loss of historic material.
- Place additions so that they are inconspicuous to the public eye. Use rear or side walls whenever possible.
- When adding stories to a building, set them back from the front wall to differentiate them and make them less conspicuous from the street.
- Design additions so that it is clear what is historic and what is not. Contemporary designs for additions are not discouraged when compatible with the character of the building.
- Additions to non-historic buildings should not clash with or visually overwhelm nearby historic structures.
- Additions should be constructed so that their removal will not harm the historic form or integrity of the building.
- Build additions so that walls of historic buildings that face the street are not hidden, damaged, or destroyed.
- Avoid duplicating the appearance of the original building.
- Avoid using materials or details that draw attention away from the historic building.

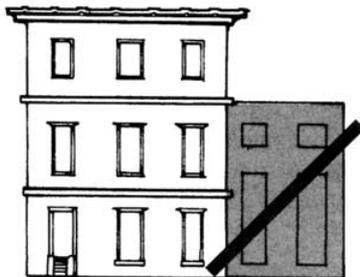
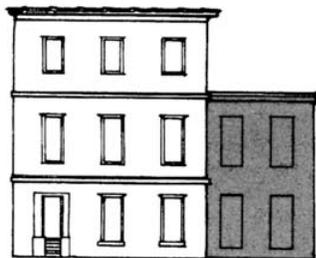
WINDOWS AND DOORS

Windows and doors in an addition to a historic building should relate in size, shape, scale, and proportion to original openings in the existing building.



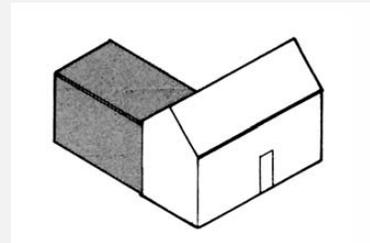
FLOOR-TO-FLOOR HEIGHTS

Additions should conform to the floor-to-floor heights of the historic building, or should incorporate detailing that suggests consistent floor-to-floor heights.

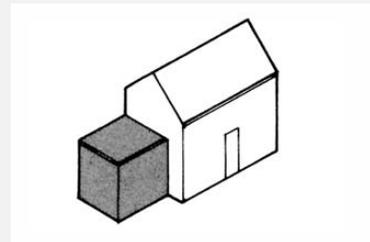


Addition Locations

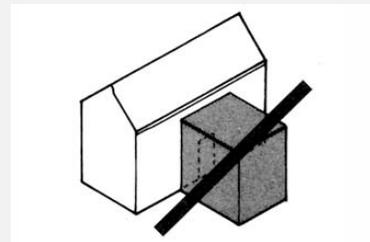
Additions should maintain the proportions and profiles of the original building. Position additions at the rear or on view-obstructed sides of the buildings.



Set additions back from the front wall of the existing building.



Construct additions so that important details and materials of the historic building are not hidden, damaged, or destroyed.



Options for Additions

FIRST CHOICE

Accommodate the new use proposed for addition in an existing area of the historic building rather than construct an addition.

SECOND CHOICE

Locate the addition on the rear wall of the building, following the suggested guidelines, if that wall is not readily visible from a public street or alley, and if no historic materials or features will be damaged or destroyed.



Figure 116 Upper York Road residence with rear addition

THIRD CHOICE

Locate the addition on a side wall that is shielded from public view, following the guidelines on the previous page, if no historic materials or features will be negatively affected.



Figure 117 Upper York Road residence with side addition

Additions in Solebury



Figure 118 Greenhill Road residence with rear addition



Figure 119 Phillips Mill Road residence with side additions

Demolition

The demolition of a historic structure is irreversible and its negative impact is far-reaching. Demolition is not an appropriate treatment for historic buildings because:

- The demolition of a building can have great negative social and psychological effects on the residents of a neighborhood. The loss of familiar and meaningful landmarks is disturbing, upsets the established sense of community, and decreases livability.
- Demolition also has a negative effect on the environment and the economy. It adds materials to our already overcrowded landfills, and it necessitates the use of money, energy, and materials to rebuild, with the energy and materials coming from already depleted natural resources.
- A demolished historic building is a lost educational resource. It can no longer illustrate the accomplishments of historical figures, the occurrence of historical events, or the construction techniques of the past.
- The demolition of a historic building creates a great physical loss in the streetscape. The loss is particularly harsh in a historic area that derives its character from the consistent appearance of more or less equally spaced buildings on the street.

Demolished buildings cannot be recreated. Because demolition can have such severe, long-term impact, it is considered appropriate in very few cases.

WHEN DEMOLITION MAY BE APPROPRIATE:

1. When the public safety and welfare requires the removal of the structure.
2. When the structural instability of the building has been amply demonstrated by the report of an engineer or architect, and after sufficient documentation.
3. When the building does not contribute to the historic area.
4. When economic hardship requirements have been met.

Demolition of Parts of Buildings

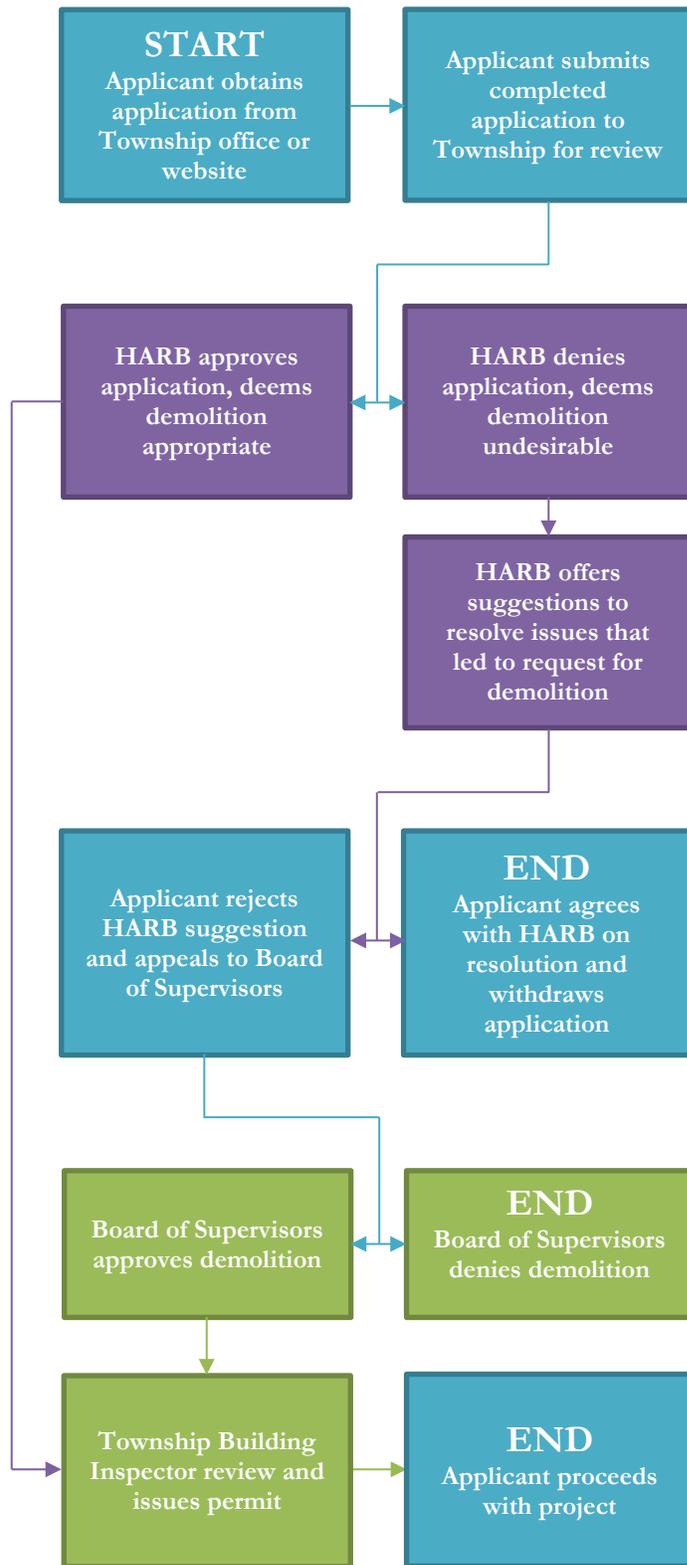
Demolition of any part of a building in Solebury's Historic District requires a permit, and, because all parts of a building contribute to the overall character of the building, demolition in part is rarely advisable. This type of demolition may be appropriate when the building element:

- Is deteriorated beyond repair,
- Is in danger of collapse,
- Cannot be stabilized, and
- Only after it has been thoroughly documented.

Removal of building elements is not acceptable if an appropriate replacement will not be constructed. If any building elements are removed, they should be recorded in photos prior to removal and should be stored for future use.

GUIDELINES FOR DEMOLITION OF HISTORIC STRUCTURES:

- Document the structure with photographs and/or in drawings before demolition.
- Ensure that demolition will not damage other historic buildings.
- Consider donating salvageable materials (such as windows, doors, bricks, or siding) to an architectural warehouse, so that they may be used for other projects.



The Demolition Approval Process

A permit is required for the demolition of any building, or any part of any building, in Solebury Township. The steps of the demolition approval and permit process are outlined here. All HARB recommendations are forwarded to the Board of Supervisors for final approval.

FOR A DEMOLITION PERMIT

Call the Township at (215) 297-5656.

PART II – DESIGN GUIDELINES

For
SOLEBURY TOWNSHIP
HISTORIC DISTRICTS

Revised: July 2023

Revised: September 2014

August 2008

2023 Historic Architectural Review Board

- Laurence Peseski, Chairperson • Scott Minnucci, Vice Chair •
- Steven Young • Margaret Newman • Nancy Ruddle • Buz Teacher •
- CL Lindsay III • Patrick Strzelec, Associate Member •
- Zachary Zubris, Administrator, Non-Member •
- John Francis, Board of Supervisors Liaison •

2023 Board of Supervisors

- Mark Baum Baicker • Hanna Howe • John Francis
- Robert A. McEwan • Kevin Morrissey •

A grateful Township extends special appreciation to all those who have directly assisted with the creation and evolution of these guidelines for the sake of protecting and preserving Solebury's historic districts.

Special Thanks

- Peter Augenblick • Michael Kennerley • Dennis Mankin • Dominic Marano •
- Janet Teacher • John Touhey • Michael Warden • Ruth Ann Wilson •

INTRODUCTION

The agricultural development of Solebury Township created two district settlement patterns, the agricultural landscape and the village. Villages were of two types: the crossroads village such as Aquetong and Solebury, and the mill village such as Carversville and Phillips Mill. The open fields and farmsteads of the upland areas of the township preserve the historic settlement pattern once typical of most of Bucks County, and the surviving villages, including the Phillips Mill Historic District and the Carversville Historic District, are remarkably preserved historic villages. These two historic districts are intact mill villages, complete with mill and mill ruins, churches, inns, and dwellings. These villages also underscore another source of Solebury's bounty: The Delaware River and its resulting steeply falling tributaries.

For generations, beginning at the end of the seventeenth century, township residents were either engaged in agriculture or milling or provided support services to those who were. Today, in an era of suburbanization, these districts provide tangible connections to the past and to the land.

To preserve and protect the township's historic areas, Solebury Township conducted a survey of its historic resources that resulted in the placement of six historic districts on the National Register of Historic Places (Figure 120). To protect further the historic districts, Solebury Township enacted Ordinance No. 68, a Historic District Zoning Ordinance, which provides design review to properties located within the Carversville and Phillips Mill Historic Districts. Consistent with the state enabling legislation for historic district zoning, the Ordinance contains provisions for regulating alterations, additions, new construction, and the demolition of buildings within the District. The Historic Districts overlay the underlying districts shown on the zoning map (Figures 121 and 122). The Ordinance establishes a Board of Historical Architectural Review (HARB), which reviews applications for exterior alterations, new construction, demolition, and signage within the Historic District, and makes recommendations to the Board of Supervisors for the issuance of a Certificate of Appropriateness for each application. (The other four National Register Historic Districts, by popular vote of property owners in the districts, elected against the protection afforded by historic district zoning. Township Ordinance No. 76 was later enacted to provide for a buffer around all six National Register Historic Districts and setbacks along the Delaware Division of the Pennsylvania Canal, to "preserve historic sites and land around them so that each historic site can remain in a natural setting".)

For additional information on the architectural history of Solebury Township, reference [Part I - History and Maintenance Manual](#) beginning on page 6.

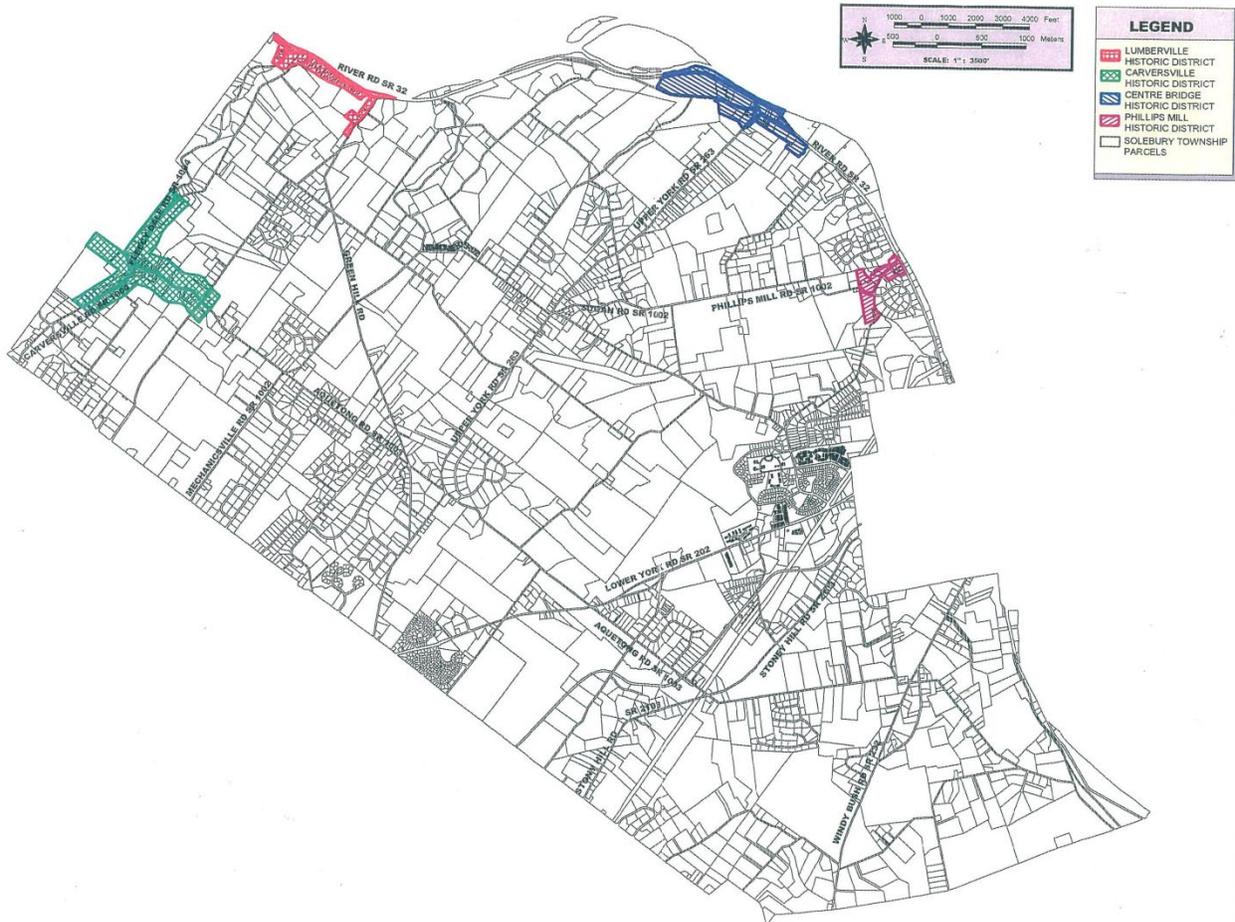


Figure 106 Map of Solebury Township Historic Districts. Notice how the mill districts are strung along the Delaware River and a fault line flowing into the river (at the western edge of the township). Map courtesy of Pickering, Corts & Summerson, March 4, 2004.

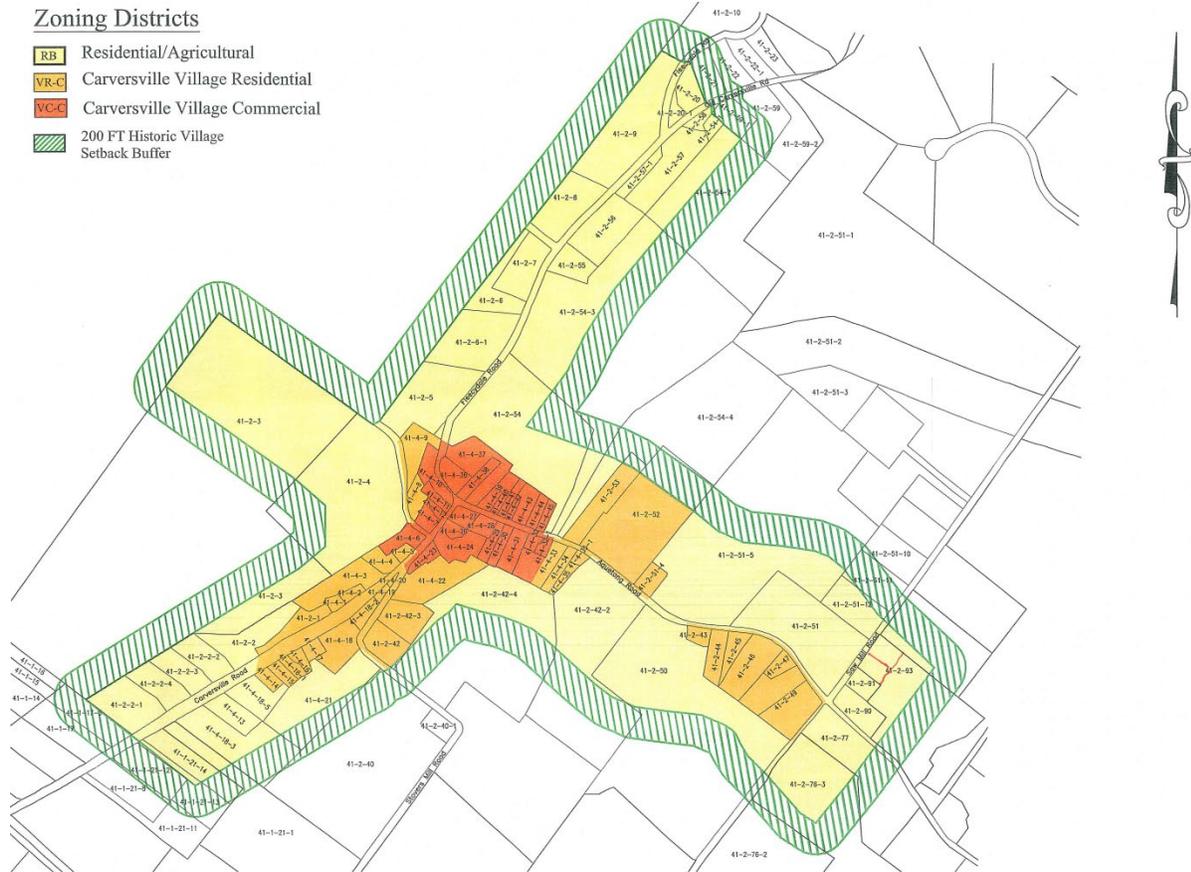


Figure 107 Map of the Carversville Historic District. Map courtesy of C. Robert Wynn Associates, Inc.

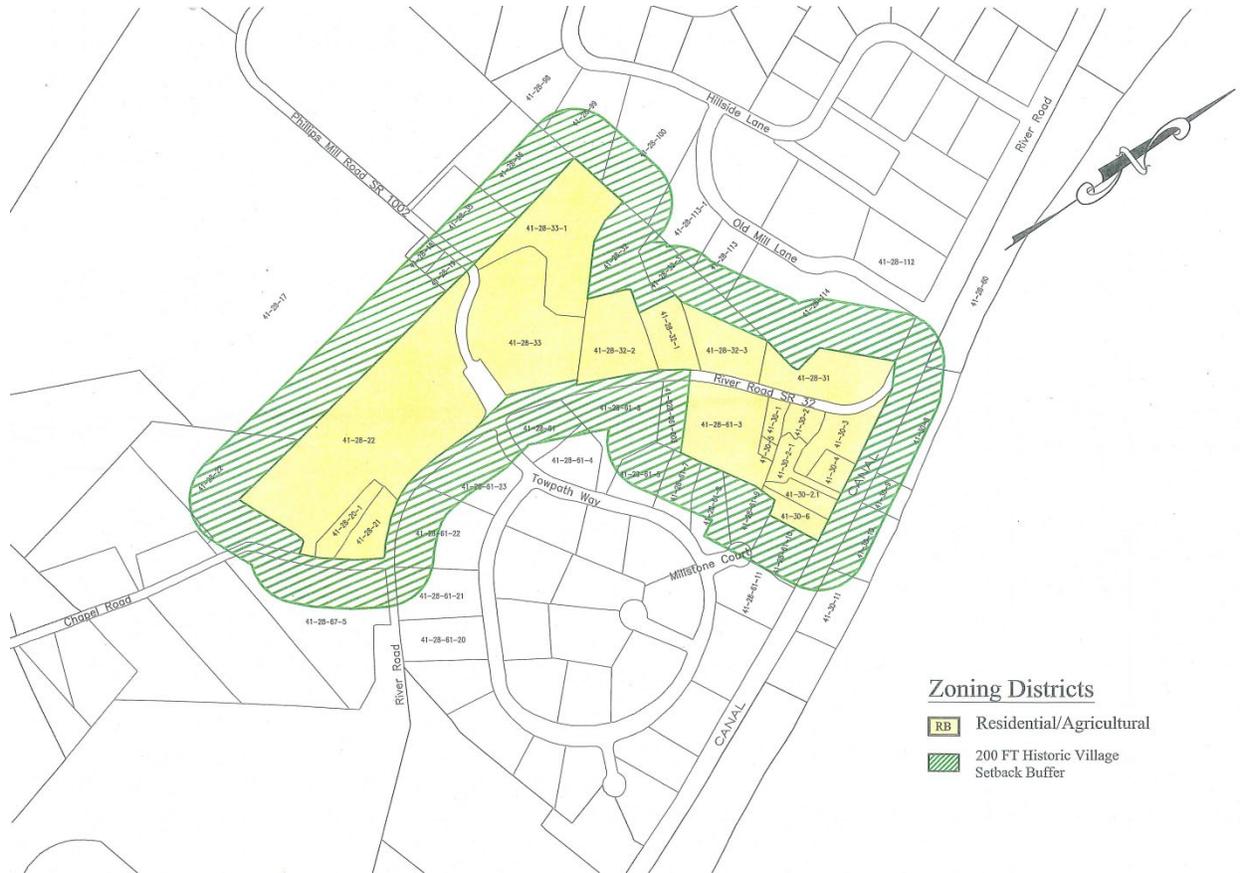


Figure 108 Map of the Phillips Mill Historic District. Map courtesy of C. Robert Wynn Associates, Inc.

INTENT OF THE DESIGN GUIDELINES

The Design Guidelines for Solebury Township Historic Districts and the History and Maintenance Manual are intended to be used as a community tool to assist property owners and HARB members in an informed, cooperative effort to protect the historical character of Carversville and Phillips Mill Historic Districts. The Design Guidelines provide an analysis of what is special about the Historic District and offer specific direction toward enhancing and preserving those qualities. Most importantly, the Design Guidelines and the History and maintenance Manual provide the basis for HARB review of all proposed changes, new buildings, and demolitions in the Carversville and Phillips Mill Historic Districts.

Understanding the historical development of the Carversville and Phillips Mill Historic Districts is essential for the thoughtful application of Design Guidelines to the Historic District. The history of the two districts is contained in the History and Maintenance Manual and on the Township website. The designation of architectural styles contained in the Design Guidelines is intended to provide insight into the architecture, settlement pattern, the character of village roads, and building forms and uses. The chapter on qualities of historic architecture defines the principles and qualities of historic architecture that will be considered in the HARB's evaluation of proposed additions and new construction. Finally, the Design Guidelines provide specific direction for the treatment of existing buildings and guidelines for compatible new design in the Historic District.

This document is a set of guidelines that supplement Ordinance No. 68. This document is not meant to be used as a strict and rigid rule book. Ordinance No. 68 of the Solebury Township Zoning Ordinance will continue to be the legal basis for design review within the Historic District (Section 8.4). These guidelines are used by HARB pursuant to Section 4 of Ordinance No. 68, which state that the HARB "may adopt and amend rules and regulations of their own organization and procedures," including design guidelines. Pursuant to the Ordinance, the Board of Supervisors unanimously approved the Design Guidelines by resolution at its June 2008 meeting.

The Design Guidelines are a flexible tool for ensuring the preservation of the architectural character of the Historic District. To achieve this goal, the guidelines strive to meet the following objectives:

- To assist property owners in planning for the acquisition and alteration of properties within the Historic District by being more specific than the ordinance.
- To provide applicants with the criteria that HARB follows in rendering its decisions.
- To minimize decisions based on individual tastes or arbitrary preferences.

ARCHITECTURAL STYLES IN SOLEBURY TOWNSHIP HISTORIC DISTRICTS

CARVERSVILLE

The confluence of the three branches of the Paunacussing Creek was early recognized by first period settlers of Solebury Township as an ideal mill location. From 1727 onward, the village known as Indian Village, Mill Town, Milton, and Carversville was home to milling and tanning operations owned by the Hough, Barcroft, Stover, Carver, and Ellicott families. Of these milling pioneers, Thomas Ellicott's legacy is most well-known because of his contributions to Oliver Evans' *The Young Mill-Wright & Miller's Guide*, published in 1795. Around the mills and tanneries of Carversville grew a small community that reached its peak in the first half of the nineteenth century comprising, by the end of the century, two churches, a hotel, stores, professional offices, and numerous dwellings.

The milling heritage of Carversville is reflected in its historic buildings. At streamside are located the mill and mill-related buildings, then commercial buildings, then dwellings, with farmsteads at the periphery (Figures 123, 124, and 125). Buildings in Carversville are general simple masses, two and one-half stories in height, with gable roofs (Figure 127). Most dwellings are side-gabled, with the roof ridge-line parallel to the road, and with flush end chimneys. Walls are either stone masonry – generally finished with stucco – or wood frame, clad with horizontal clapboarding. Windows in Carversville are wood, and generally 6-over-6 or 2-over-2 double-hung sash windows.

Buildings in Carversville reflect the time period of their construction as well as the relative isolation of the location until well into the twentieth century. Most buildings are simple vernacular forms to which stylistic elements were added on a very limited basis. To describe a house in Carversville as “Federal Style” is to say that it possesses exterior Federal-style wood moldings, not that it resembles the Physick House in Philadelphia in any way. Where present, stylistic features found on a building in Carversville may represent more than one specific stylistic period. Most buildings in Carversville reflect changes made over time, some during the period of significance for the district and some since then. Architectural styles represented in Carversville include the following:

COLONIAL VERNACULAR (1700-1800)

The earliest dwellings in Solebury Township were built following the basic English vernacular plan-types that were used in the Atlantic colonies, including the one-room hall plan, the two-room hall-and-parlor plan, the three-room plan (also called the “Quaker plan”), the two-room Penn plan, the two-room side-passage plan, and after 1750, the four-room center-passage plan (Figure 128). Because they were built during the Georgian period and because they utilized wood molding profiles found in the formal Georgian style, they are sometimes described as “a simple Georgian farmhouse,” or other such name, modified by “Georgian.” Vernacular dwellings were built of stone masonry, usually 2-1/2 stories high; two, three, or four bays wide; with a gable roof clad with wood shingles. These buildings are uniquely Pennsylvanian, drawing on English vernacular house forms, applied to specific geographic settings, built with native materials, by religiously motivated settlers looking for a sense of permanence.



Figure 109 *Stover's Mill, Carversville Historic District. Mill buildings are clustered streamside, then commercial buildings and then residences.*



Figure 110 *Thomas Carey Farm, Crystal Spring Creamery, Carversville Historic District. The transition to the agricultural landscape is made by farms that border the village.*



Figure 111 *Thomas Carey Farm, Crystal Spring Creamery, Carversville Historic District. The transition to the agricultural landscape is made by farms that border the village.*



Figure 112 *Historic view of Overpeck House, located on Aquetong Road in Carversville. The oldest portion of the existing stone dwelling may date from 1720-25.*



Figure 113 Aquetong Road, Carversville Historic District. Dwellings in Carversville are generally simple masses, two and one-half stories in height, with gable roofs.



Figure 114 Kirk Homestead, Aquetong Road, Carversville Historic District. Colonial dwellings were frequently built in sections relating to generations of family ownership.

FEDERAL STYLE (NATIONALLY 1780-1820, VERNACULAR EXAMPLES TO MID-CENTURY)

The Federal style became popular after the American Revolution, and the style is found in abundance in Southeastern Pennsylvania communities that developed during the first half of the nineteenth century. In Carversville, Federal style buildings are either stucco-finished stone or wood frame. Federal style buildings are relatively plain, rectilinear and box-like (Figure 129). They are generally oriented with side-gables, with their ridge lines parallel to the road. Windows aligned vertically and horizontally are double-hung, originally with six-over-six pane sashes. Two common elements of the Federal style, dormers and shutters, are not common in Carversville. In Federal style buildings, cornices typically have a modest projection, and the principal ornamentation is lavished on the door surround, which often feature pilasters, full classical entablature, and transom window.



Figure 115 Grace Shaw House, c.1850-1875, Aquetong Road, Carversville Historic District. Simple and elegant Federal style detailing cloaks a house laid out with a colonial ball-and-parlor plan.

GREEK REVIVAL (NATIONALLY 1818-1860)

Beginning in 1818, with the Second Bank of the United States in Philadelphia, the Greek Revival style came into fashion. Modeled aft the ancient Greek temple and introduced from Great Britain, the most distinguishing feature of the Greek Revival in America was the temple form with its pediment (triangular) gable front, 30-degree pitch roof, and large, classical columns supporting a portico roof. When applied on a residential scale, the Greek Revival was often manifest as elaborate door surrounds, pedimented porches or front gables, and trim profiles. The Isaac Stover mansion, c. 1850, is described by Kathryn Ann Auerbach in “Carversville Architectural History.” As Federal style in form with modest Greek Revival elements such as a stucco finish and columned porticos (Figure 130).



Figure 116 *Isaac Stover Mansion, c.1850, Carversville Historic District. The classically-derived design of a prominent mill owner's house is described as Federal style in form with modest Greek Revival elements such as a stucco finish and columned porticos.*

GOTHIC REVIVAL (NATIONALLY 1800-1880)

The Gothic Revival style was a favored style for religious buildings, and was employed in the 1873 Presbyterian Church. Residentially, the Gothic Revival style featured steeply pitched roofs with deep overhangs, centered or paired cross gables, decorated barge boards and ornamental trusses at the gables, and elaborate one-story porches (Figure 131). Two handsome Gothic Revival style dwellings are part of a row of dwellings along Aquetong Road. The two-story porch fronting the Carversville Inn, added in the 1850s, is Gothic Revival in its pointed arches between posts, but is capped by an Italianate-style bracketed cornice.



Figure 117 *Gothic Revival house along Aquetong Road, Carversville Historic District. The cross gables, steeply-pitched roof, chimney pots, and ornamental porch framing are characteristics of the Gothic Revival style.*

ITALIANATE STYLE (NATIONALLY 1837-1875)

The Italianate style appeared in America about 1837 as a residential style. Although high-style examples of Italianate “villas” are uncommon, the vocabulary of the Italianate is ubiquitous in American cities, towns, and villages from the second half of the nineteenth century. In Carversville, ordinary side-gabled stone or wood-frame houses were fitted out with Italianate bracketed cornices, porches, windows, and door surrounds, available by then from catalogues (Figure 132). Italianate exterior woodwork was applied to earlier buildings at times, and was blended with other styles on a single building.



Figure 118 Italianate style house on Aquetong Road, Carversville Historic District. The bracketed cornice, wide overhangs, and porch are hallmarks of the Italianate style.

OTHER VICTORIAN REVIVAL STYLES

Late nineteenth century styles are not represented in Carversville because the village economy did not support new housing. The sole example of the French Second Empire style is Stover’s Mill, rebuilt after a fire in 1894 (Figure 123). The new roof is a Mansard roof, deriving stylistically from the French Empire of Napoleon III (1852-1870) and arriving in America in 1859. Although the steeply pitched roof is Mansard in form, the modest cornice and dormers are simple Italianate woodwork, and the motivation for the roof form, it is assumed, was the maximization of attic floor space, not an expression of architectural style.

PHILLIPS MILL

Primrose Creek's steep descent to the Delaware River provided a favorable location for a mill, which was built by Aaron Phillips in 1756. The mill, probably built as a custom grist mill serving the community, became a merchant mill when the Delaware Division of the Pennsylvania Canal was built c. 1830, providing access to the Philadelphia export market (Figure 133). At mid-century, the settlement was comprised of the mill complex, three dairy farms, a cooper show, and a one-room schoolhouse. In 1896 the 27-acre core of the hamlet was purchased by Dr. George M. Marshall, and over the next 30 years was transformed into an enclave of artists who resided, taught, and working in buildings transformed in the vocabulary of the arts-and-crafts movement. Today, Phillips Mill achieves its uniqueness and significance from its eclectic blend of Tudor revival influences, gothic motifs, and arts-and-crafts motifs applied to otherwise typical eighteenth and nineteenth vernacular buildings (Figure 134).

Stylistically, the architecture of Phillips Mill does not fall into conventional categories because of the extent of whimsical twentieth-century alterations to the buildings. The earliest buildings of Phillips mill, like Carversville, are colonial vernacular. The stone mill and miller's house, at the core of the district, retain their basic vernacular form.

Indicative of the vibrancy of the community during the early twentieth century is the use of the Tudor revival style, most prominently seen on the Morgan Colt house (Figure 135) and the dwelling of Dr. Marshall's sister, later to become a private school and now a country inn. The Tudor revival, which spanned the years 1890 to 1940, featured steeply pitched roofs with one or more prominent cross gables, often exposed half-timbering, multi-pane casement windows, and massive chimneys. Tudor revival houses have a range of wall cladding materials, including rough-cast stucco, stone, brick, and wood.



Figure 119 Phillips Mill and Miller's House, Phillips Mill Historic District. The original mill, built in 1756 by Aaron Phillips, is now the playhouse and gallery of the Phillips Mill Community Association, and the miller's house is best known as the William Lathrop House.



Figure 120 Whimsical Tudor Revival style outbuilding and gateway attached to the Morgan Colt House, Phillips Mill Historic District. Phillips Mill achieves its uniqueness and significance from its eclectic blend of Tudor Revival influences, gothic motifs, and arts-and-crafts motifs, applied to otherwise substantial, but typical, colonial and nineteenth-century buildings.



Figure 121 Morgan Colt House, Phillips Mill Historic District. The steeply pitched roofs, prominent cross gables, massive chimneys, and leaded-glass casement windows are hallmarks of the style.

THE DESIGN REVIEW PROCESS

The Design Guidelines and Solebury Township Ordinance No. 68 form the basis for the review of applications that come before the Board of Historical Architectural Review. The ordinance requires that, "Any person wishing to erect, reconstruct, alter or restore all or any part of a structure within an historic district which can be seen from a public street or way must secure a certificate of appropriateness from the Board of Supervisors before undertaking any work, whether or not a building permit is required for that work."

The Board of Historical Architectural Review (HARB) is an advisory board to the Board of Supervisors, and all HARB recommendations for a Certificate of Appropriateness require approval by the Board of Supervisors. The Board of Supervisors may concur with the HARB or may overturn the decision of HARB, either in support of or in opposition to the application. The applicant may appeal a decision of the Board of Supervisors to the Solebury Township Zoning Hearing Board.

The design review process consists of the following steps:

- Pre-application review (optional)
- Application submission
- Administrative review for RRIK (Repairs and Replacements In-Kind)
- HARB review
- Board of Supervisors' review

Generally, the design review process for a simple project takes about two to three months to complete, and applicants must consider this timeframe when planning and scheduling their projects. For projects involving significant changes to structures within the Historic District, such as major façade alterations, construction of additions, new construction, and demolition, a pre-application review is highly recommended. Applicants should allow a minimum of another month for this step. It is also recommended that applicants retain the services of a design professional for major projects within the historic district.

The administrative review process for RRIK (In-Kind repairs or In-Kind Replacement) will typically be within 5 days upon administrative review. The RRIK process eliminates the need for a more formal review by expediting certain improvements (e.g. change of paint color).

PRE-APPLICATION REVIEW

The purpose of the pre-application review is to acquaint the applicant with the standards of appropriateness of design that are relevant to the proposed project. A pre-application review is voluntary and does not require formal application submission. For projects comprising major alterations or new construction within the historic districts, a pre-application review is strongly encouraged.

The pre-application process enables the applicant to present the basic concepts of the proposed project for feedback and informal discussion with the HARB. During pre-application review, the applicant can provide a single design proposal or present several design options for discussion. The pre-application review process saves the applicant the time and expense of developing a complete submission for a final design that may not be approved, and a favorable preliminary design streamlines the formal review process.

In this process the HARB will focus mainly on providing guidance to the applicant to encourage referencing of standards established and published in the Design Guidelines and History and Maintenance Manual, which HARB members will reference for evaluating the appropriateness of the application.

APPLICATION SUBMISSION

An Application for a Certificate of Appropriateness form must be completed by the applicant and submitted to the Township's HARB Administrator at least thirty (30) working days prior to the HARB's monthly meeting. The required application package must include:

- The completed application form (Application checklist is provided).
- Photographs of the structure showing the part or parts to be altered as well as photographs of the entire facade and the buildings in the immediate surrounding area.
- Architectural drawings, including exterior elevations and plans as applicable, of the proposed alterations, of sufficient detail to show architectural design elements, materials, and dimensions.
- Copies of manufacturers' literature showing products and items to be incorporated into the work.
- Material and paint samples as applicable.
- Historical photographs where supportive of the application.

A copy of the [Certificate of Appropriateness Application](#) may be obtained from the HARB Administrator and is included on page 185.

ADMINISTRATIVE REVIEW

The administrative process is an approval process designed to expedite and simplify the approval process for planned repairs or replacement with like or in-kind materials, color, etc. An applicant needs to contact the HARB administrator to discuss the scope of work planned, who in turn will review with two appointed leads from the HARB. If it is determined that the application can be approved by way of the administrative review, the applicant can get approval without a formal HARB review, or the applicant will be advised that a formal HARB review will be required.

HARB REVIEW

The HARB considers each application for a Certificate of Appropriateness at its regular monthly public meeting. Applicants are encouraged to attend these meetings to present their projects and address questions from the HARB. An applicant not attending the HARB meeting risks the potential continuance of his or her application in the event that the HARB has unanswered questions concerning the project.

Following the review of an application, the HARB will take one of the following actions:

1. Recommend a Certificate of Appropriateness for the application as presented
2. Recommend a Certificate of Appropriateness with specified conditions
3. Recommend that the application be denied
4. Continue the application because of the incompleteness of the application
5. Continue the application at the request of the applicant.

The HARB diligently strives to avoid the denial of an application by suggesting design alternatives, and by allowing the applicant to revise the design and present again at a future meeting. Every decision made by the HARB becomes part of the public record. For approved and denied applications, a written Recommendation for a Certificate of Appropriateness is provided to the Board of Supervisors for approval.

REVIEW BY BOARD OF SUPERVISORS

The Recommendation for a Certificate of Appropriateness prepared by the HARB is reviewed by the Board of Supervisors. The Board of Supervisors uses the same criteria as the HARB in evaluating the application. An applicant may attend the meeting to comment on his or her application. For applications denied or approved with conditions by the HARB, the applicant may appeal to the Board of Supervisors to reverse the HARB's decision. The Board of Supervisors officially votes to approve or disapprove each of HARB's recommendations for a Certificate of Appropriateness at its voting session. All of the Board of Supervisors' decisions are part of the public record.

Following the vote by the Board of Supervisors, the HARB Administrator sends a letter to the applicant informing him or her of the decision of the Board of Supervisors. For an approved application, the letter authorizes the applicant to apply for a building permit if required under Township regulations, to perform the proposed work as presented or with specified conditions. If the Board of Supervisors disapproves the application, the letter indicates the reasons for disapproval.

QUALITIES OF HISTORIC ARCHITECTURE

While architectural styles contribute to the richness and understanding of historic places, stylistic features were often applied to basic building forms rather than being integral to their original design. These basic building forms - the gabled stone barn, for example - are the fundamental elements that give historic architecture and historic districts their character. Therefore, when evaluating proposed changes to existing buildings or proposed new buildings in a historic setting, the qualities of the basic building forms and materials are more significant than the applied stylistic features.

To preserve individual buildings, the architectural character of each structure must be identified and either maintained or restored. To preserve a historic district, the architectural character of each proposed new structure must be compatible with neighboring historic buildings. The architectural character of a building refers to the qualities of massing, scale, proportion, order, rhythm, and materials. Each application for a change to an existing building or for a new building should be evaluated using these qualities, which are defined in this chapter.

BUILDING MATERIALS

The historic buildings of Solebury Township are constructed of traditional building materials - stone, stucco, painted and unpainted wood, roofing made of slate, wood, or sheet metal. The repeated use of these traditional materials along both village streets and farm roads creates an architectural cohesiveness and harmony that gives the architecture of the township much of its distinctive character (Figure 136).

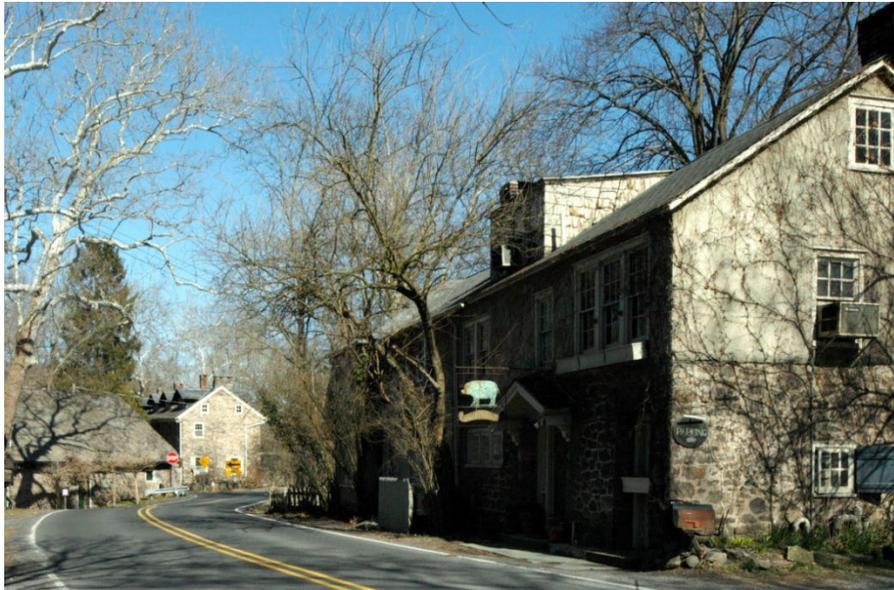


Figure 122 River Road, Phillips Mill Historic District. The repeated use of traditional materials – stone, stucco, and painted woodwork – applied to simple gabled architectural volumes, creates an architectural cohesiveness and harmony.

MASSING

Massing, also referred to as architectural form, is the overall volumetric shape of a building. The massing of a building may be described as large or small, simple or complex (Figures 137 and 138). The massing of a building is defined by the exterior walls, roof shape, and appendages such as porches, projecting bays, towers, dormers, and cupolas. In a historic district, massing is the single most important characteristic to consider in the evaluation of proposed additions and new construction. A large new building set in a context of uniform-size historic building blocks is visually disruptive because the continuity of the historical pattern is broken. Roof forms in a rural and village landscape are highly visible and contribute significantly to the shape of a building (Figure 139).



Figure 123 Simple mass of the Presbyterian Church and its cluster of outbuildings.



Figure 124 Complex mass of the Carversville General Store, Carversville Historic District.

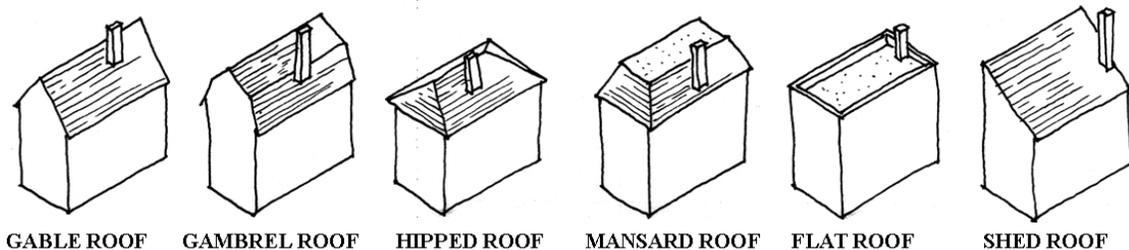


Figure 125 Types of roof forms. The roof form contributes to the volumetric shape of a building. In Solebury Township historic districts, most roofs are gabled.

ORDER

Order in architecture is the arrangement and relationships of parts of a building. A symmetrical building facade - one where a center door is flanked by an equal number of windows on each side of the door - is highly ordered. The front facade of the Stover Mansion is highly ordered - literally "of the orders"; that is, its order is derived from a strict application of the Doric Order, one of the five orders taken from classical architecture. Windows that align vertically are ordered; their placement is based on a rational structural and visual order. An asymmetrical facade is less formal than a symmetrical facade, but may also be highly ordered. For example, the facade of a side-hall plan house has an arrangement of vertically aligning door and window openings that directly relate to the arrangement of hall and rooms inside (Figure 140).

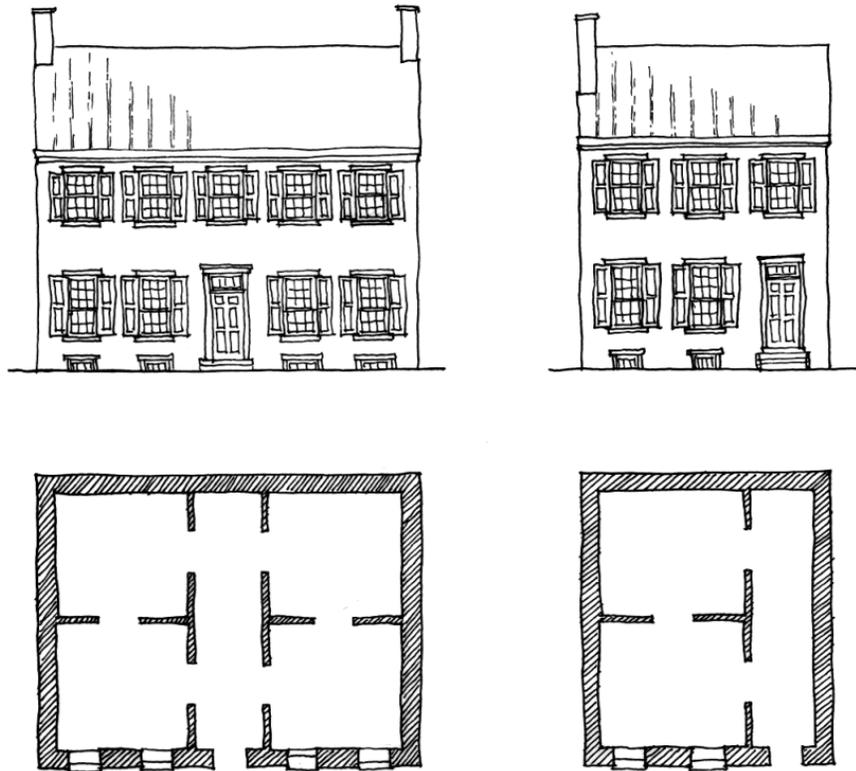


Figure 126 The center-hall plan house, with its symmetrical facade, is highly ordered. The side-hall plan house, although lacking a symmetrical facade, is also a formal, ordered plan-type in which the doors and windows of the front facade are uniformly spaced and directly related to the floor plan inside the building

PROPORTION

Proportion in architecture is the relationship among the dimensions of the various building elements and the individual features to each other. Architectural harmony is achieved in a building façade when façade elements are proportional to each other and to the overall façade. “The purpose of proportion is to establish harmony throughout the structure - a harmony which is made comprehensible either by the conspicuous use of one or more of the [classical] orders as dominant components or else simply by the use of dimensions involving the repetition of simple ratios.” (John Summerson, *The Classical Language of Architecture*, Cambridge, MA: MIT Press, 1963, page 8.)

One of the oldest systems of proportion was the Golden Section, which was devised in ancient Greece (Figure 141). The Golden Section is a rectangle with a width to length ratio of about 5:8, proportions that are an ideal ratio in western art and architecture.

In architecture, the use of repeated proportions creates a harmony in a building façade (Figure 142). The overall shape of the façade is repeated in façade elements such as doors and windows.

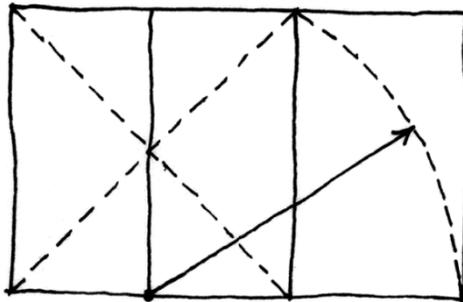


Figure 127 The Golden Section is formed by constructing a square, drawing a line from the midpoint of one side of the square to the opposite corner, and dropping the line as an arc.



Figure 128 Analysis of three-story commercial building façade showing the repeated proportions in façade elements, beginning with the overall façade and carried down to the proportions of individual glass panes. (Geometrically, when the diagonals of rectangles are proportional.)

RHYTHM

Rhythm in architecture is the pattern and spacing of repeating elements such as windows, columns, arches, and other façade elements (Figure 143). Almost all buildings are made of elements that repeat themselves -- alternating vertical bands of brick wall and windows, alternating horizontal bands of brick wall and windows, for examples. The spacing of buildings in a historic streetscape creates a rhythm also.



Figure 129 Analysis of houses along Aquetong Road, Carversville Historic District. The spacing of windows and doors on a façade creates a rhythm that repeats itself from building to building. The space of buildings along a village street also creates a rhythm (see Figure 6).

SCALE

Scale in architecture is a measure of the relative size of a building or building component in relation to a known unit of measure or customary size for such a component. A person evaluates how large a building or building component is in relation to the human body size and his or her memory of the expected size for such a component. For example, a sense of the size of a wood-frame building can be established because of the width of a clapboard, which is usually about 5 inches. Doors and windows are scale-giving features on all buildings. Residential doors are typically slightly higher than the height of a tall person, or roughly seven feet high. Double-hung sash windows in historic buildings are typically five or six feet tall, the height of an average size person (Figure 144). If the size or shape of a familiar building component diverges from the expected, it may be said to be “out of scale.”

The principle of scale applies both to individual buildings and to streetscapes. In a village setting, where each building forms a part of a larger streetscape, building scale is of paramount importance. In Solebury Township villages, dwellings are generally modest in size, while religious and commercial buildings are larger. In the hierarchy of social order in a community, prominent buildings such as churches, mills, and any “mansion” differentiate themselves by contrasting with the predominating building form.

The perceived scale of any proposed building or addition is a function of 1) the overall size of the proposed new construction relative to existing building sizes, and 2) the visual relationship of building facade elements in the new construction relative to the visual relationship of building facade elements in existing buildings.

Outdoor spaces, formed by the buildings, fences, fields, and vegetation that surround them, also have scale. The historic village streetscape, with its narrow streets, small gardens and garden walls, finely-textured architecture, and intimate natural setting is of a human scale. The scale of buildings in a traditional village creates a clear hierarchy of building significance. In Carversville, the economic engines of the village – Stover’s Mill and the Carversville Inn – are similar in scale to the two churches, closely followed by the Stover Mansion.

An agricultural landscape of farmsteads and surrounding fields creates a scale. The spacing of farmsteads in the landscape creates an understanding of how much land was historically needed to sustain a farm. When land is subdivided and additional houses are built, the scale of the landscape changes from agricultural to suburban. No matter how successful the design of the new houses – their very presence in the agricultural landscape has destroyed the scale of historic landscape. For this reason, sensitive development in agricultural landscape is much more difficult than in a village setting.

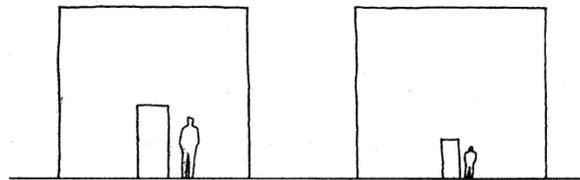


Figure 130 The scale of a building refers to its size and the size of building components relative to the size of a human. In a building of monumental scale, such as a large courthouse, a human is dwarfed in comparison to the size of the building and its elements. We use scale to estimate the size of a building or building element. In both diagrams, the door appears to be slightly taller than a human form, say 7 feet. With that assumption, the wall in the left diagram may be estimated as slightly higher than 2 times the door height, while in the right diagram, the wall is several times as high as the door opening.

GENERAL GUIDELINES

The following guidelines are applicable to all contributing historic buildings within the HARB-regulated Carversville and Phillips Mill Historic Districts, including outbuildings such as barns, wagon sheds, carriage houses, garages, spring houses, and other outbuildings. These guidelines are also a useful planning resource for property owners in Solebury's historic districts that are not regulated by HARB: The Upper Aquetong Valley, Centre Bridge, Cuttalossa Valley, Lumberville, as well as individual historic structures.

BUILDING CHANGES

Significant changes to a historic building take place over time and are evidence of its history. Significant changes are defined as those changes that took place within the period of significance of the historic district. Such changes reflect the evolution of the building to accommodate changing owner needs and changes in residential living or technology. A settler's first dwelling, which might be a one-room structure, may acquire an addition larger than the original building. The addition is significant to the history of the building, transforming the building from a rudimentary dwelling to a substantial residence, and occurring within the period of significance for the historic district. Historically significant changes should be preserved (Figure 145). Other examples of significant changes include the addition of a forebay to a barn, a saw- or cider-mill wing to a grist mill, a front porch to a Federal Style house, or a kitchen wing.

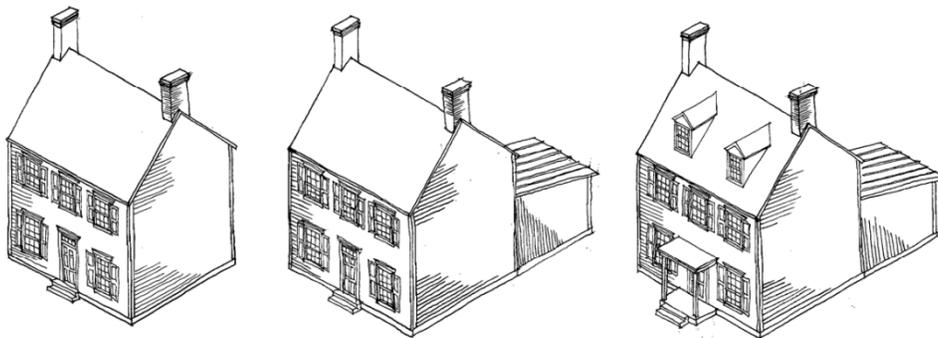


Figure 131 Significant changes to historic buildings over time should be preserved. In Solebury Township, shed additions, porches, and dormers were frequently added to older buildings.

DETERIORATED AND MISSING COMPONENTS

Deteriorated or missing significant architectural components should be replaced or recreated with materials that replicate the historic design, color, texture, and other visual qualities of the components. Replicate components should be fabricated from traditional materials. Substitute materials are generally not recommended for replicating wood and masonry assemblies. For missing components, efforts should be made to substantiate the original design of the component through physical evidence or historic pictorial evidence of the building. If the original design is unknown, a component that is appropriate to the type and style of the building's architecture should be used, without conjecture or a false sense of history.

PRECEDENT

Designs and changes approved or rejected elsewhere in the Historic District do not necessarily act as a precedent for a design or change under consideration. All proposals will be considered individually based on their own merit and unique situation within the district.

PRESERVING ARCHITECTURAL CHARACTER

The historic architectural character of structures should be maintained or restored. Proposed repairs and changes to historic structures should not reduce the integrity of a structure nor result in the loss of repairable historic building fabric.

PRIMARY AND SECONDARY FACADES

Section 6 of the Solebury Township Historic District Zoning Ordinance states, “Any person wishing to erect, reconstruct, alter or restore all or any part of a structure within a historic district which can be seen from a public street or way must secure a Certificate of Appropriateness from the Board of Supervisors before undertaking any work whether or not a building permit is required for that work.” For most buildings that can be seen from a public street or way, the front and side façades are visible, while the rear façade is not. In a village setting, the sides of closely spaced buildings are only nominally visible. To accommodate these conditions HARB, in its review of applications, differentiates between primary façades (the front and highly visible side façades) and secondary façades (rear façades and nominally visible side façades) (Figure 146).

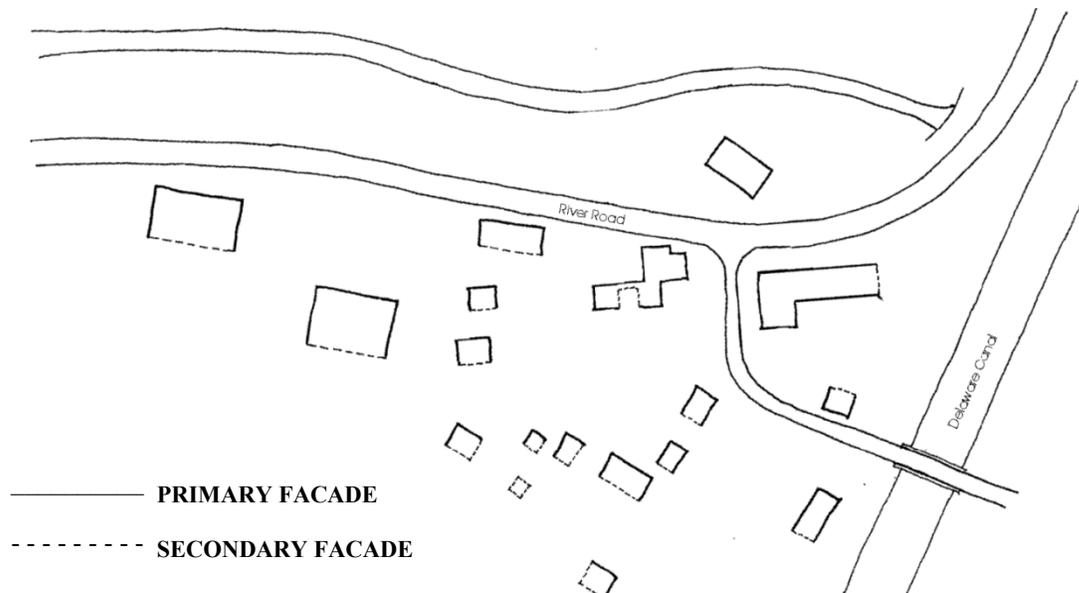


Figure 132 Diagram of the mill area of Phillips Mill Historic District. The HARB, in its review of applications, differentiates between primary facades (the front and highly visible side facades) and secondary facades (rear facades and nominally visible side facades).

RRIK (REPAIRS AND REPLACEMENT ‘IN-KIND’)

It is preferable to retain existing original materials and significant components wherever possible, by stabilizing, repairing, or matching them with compatible new materials rather than by replacing them. If, due to severe deterioration or loss, historic components must be replaced, new components should replicate the profiles, dimensions, and material of the original components (Figure 133).



Figure 133 Sequence of restoration of a severely deteriorated cornice return. The crown molding was custom-cut for the project, a procedure that requires scheduling but does not add significantly to the repair cost.

IN-KIND REPAIRS

A property owner must apply for a certificate of appropriateness to HARB if a repair is required to fix a deteriorated building or structure component, and the repair incorporates parts and materials which are exactly the same as the original in terms including, but not limited to: appearance, materials, size, arrangements, proportion, dimensions, color and texture. A repair in kind may qualify for a RRIK Application.

IN-KIND REPLACEMENTS

If replacement of a deteriorate building or structure component material is required due to irreversible deterioration, the repair must incorporate parts and materials which are exactly the same as the original in terms including, but not limited to: appearance, materials, size, arrangement, proportion, dimensions, color and texture. A replacement in kind circumstance may qualify for a RRIK Application.

REPAINTING

No HARB approval is required if a property owner wishes to repaint any element of a building or structure (sliding door(s), windows, gutters, fencing, gates, garages, storage sheds, etc.) visible from the public view, with the exact color(s) previously used. An exact match in color or hue in this circumstance means “Near Indiscernible Variation in Intensity, Value, and Sheen” (flat, low-luster, soft gloss/satin, semi-gloss, high gloss).

A change in paint color on any aforementioned elements of a building or structure on a property will qualify as a RRIK application to be reviewed by HARB.

REVERSABILITY

Proposed changes to historic buildings should be reversible whenever possible. Applying stucco over stone masonry is not recommended for several reasons, including the fact that the removal of stucco is extremely difficult if not irreversible. For severely deteriorated windows, it is preferred to replace only the sashes while restoring the frames in place because the retained frames allow a future property owner to reconstruct the original appearance of the windows.

GUIDELINES TO PRESERVE AND PROTECT HISTORIC BUILDINGS

The following guidelines pertain to major maintenance, repairs, and restoration of existing contributing buildings in the Solebury Township Historic Districts of Carversville and Phillips Mill. Based on the Secretary of the Interior's Standards for Rehabilitation, recommendations contained in this section are valuable guidelines for the preservation of all historic buildings in Solebury Township.

ACCESSIBILITY IN HISTORIC BUILDINGS

Building accessibility for individuals with disabilities should be achieved without compromise to historic materials or to character-defining features of a historic building or site. A ramp or vertical access lift should not be placed on the front or prominent side façade of a historic building where it can be avoided. If the only feasible placement of a ramp or lift is on a front façade, efforts should be made to minimize its visual impact on the façade, and the building owner should work with the HARB and the Township Building Inspector to achieve accessibility without visual intrusion. Accessibility devices can sometimes be effectively concealed within a traditional building element. For example, a vertical platform lift could be built within what appears to be a traditional porch, or a ramp can be integrated into an entrance terrace (Figures 134, 135, 136, and 137).



Figure 134 *Unsuccessful ramp in front of historic wood frame church. The designer attempted to screen the long ramp, but it should have been placed on the side of the building due to its length*



Figure 135 *Unsuccessful ramp. The pressure-treated wood railings and exposed structure are not recommended*



Figure 136 *Successful ramp: The shop entrance requires a ramp and the use of brick paving masks the presence of the ramp*



Figure 137 *Successful ramp: The porches provide a natural screen for a new ramp*

ANCHORING DEVICES

When attaching new items such as signs, sign brackets, light fixtures, door bells, security equipment, building identification numerals, awnings, flagpole brackets, and other devices to existing historic building materials, care should be taken to minimize permanent damage to the historic building materials. Attachment to plain wood surfaces is preferable to attachment to masonry, because at a future date when the item is no longer required, the anchor or fastener can be removed and the resultant hole patched and repainted without harm. When attachment to stone masonry walls is necessary, anchors should be embedded in mortar joints wherever the joint width accepts the anchor without damaging the edges of the masonry unit. When existing mortar joints are less than 1/4-inch-wide joints, anchors should be embedded in the stone at least 1 inch away from the mortar joint to prevent damaging two stones at each anchor (Figure 138).

AWNINGS

Awnings should be appropriate to the design of the storefront or building facade. Awnings traditionally provided protection from the weather for shoppers and shaded the shop windows from direct sun (Figure 139). New awnings should be designed to relate to the architecture of the storefront or building facade. Building features such as arched transom windows should not be obscured by the awning design. Awnings should be constructed of suitable fabrics supported by metal frames. Fabric design should be striped or solid color, using colors appropriate to the period of the storefront, and should avoid non-traditional effects. Awnings should not be internally illuminated.

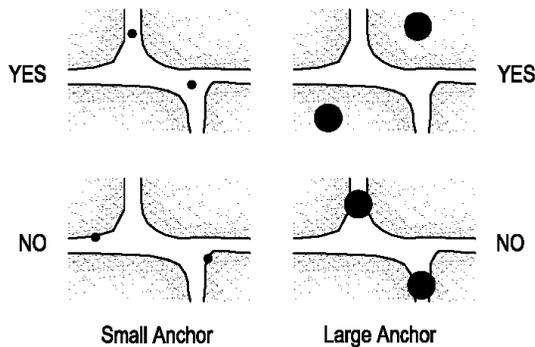


Figure 138 Anchoring devices for the support of signs and other wall-mounted items should be anchored with minimal damage to historic wall materials. In masonry walls, small anchors should be inserted in the mortar joints, while large anchors should be held back from the mortar joint, not overlapping the joint.



Figure 139 Carversville General Store. Canvas awnings are a traditional way of providing protection to storefront windows.

BARN CONVERSIONS

A barn conversion, defined as the adaptive use of a barn as a residence, studio, office, or other use, is a means of preserving a building that may otherwise be obsolete. For an agricultural community, preserving historic barns and farmsteads is a high preservation priority, and at times the only viable option may be adaptive use of a barn. The most compatible adaptive use for a barn building is a warehouse or an open workshop that does not require subdivision of the interior space. When more intensive uses are applied to a barn, such as

commercial office space or a dwelling, the technical difficulties of insulating the walls and roof as well as providing natural daylight to many small spaces sometimes compromises the integrity of the barn.

New door and window openings in historic stone walls are highly discouraged because of the permanency of the alteration. Instead, new window and door openings should be placed in wood frame walls, and arranged in bands or clusters that visually emphasize the height and width of the wood frame wall panel. Where possible, the threshold-floor door opening should be entirely infilled with windows. “Punching” individual window openings into barn walls, especially openings that do not follow a strict grid layout, is not recommended because such openings diminish the integrity of the barn (Figure 140).

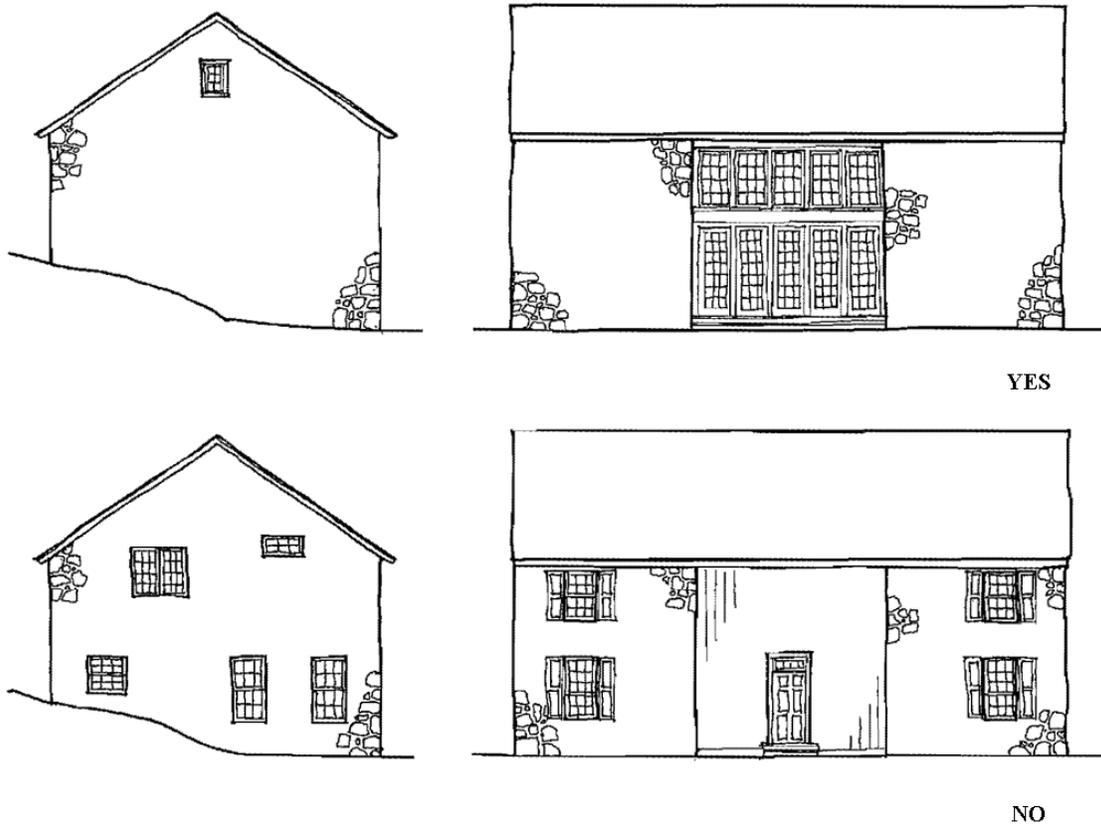


Figure 140 Barn conversions very frequently compromise the integrity of the historic barn. To minimize compromise, openings for new doors and windows should be made only in wood-sided portions of the barn, and arranged in clusters or bands that visually emphasize the height and width of wood frame portion of the barn.

CLEANING HISTORIC STRUCTURES - GENERAL

Exterior cleaning of historic structures should be done in the gentlest way possible. Destructive techniques such as sandblasting and harsh chemical cleaners are not recommended. High-pressure washing is also not appropriate and can cause damage to structures.

Recommended Cleaning Techniques:

- Exterior Woodwork (in preparation for repainting)**
 Apply 1:8 solution of household chlorine bleach in water to soiled woodwork, using a natural or plastic-fiber bristle brush or garden bug sprayer. Scrub using natural or plastic-fiber bristle brush, followed by a water rinse at a maximum of 600 pounds per square inch (psi) of pressure at 24 inches from the wall surface using a 15-degree spray tip.
- Stone, Stucco, and Brick**
 Water rinse using maximum 600 psi water pressure at 6 inches from masonry surface using a 15-degree spray tip (or 1,200 psi at 24 inches). For heavily soiled surfaces, apply a diluted mixture of a specially formulated masonry cleaner according to the manufacturer's instructions. After the specified contact time, scrub masonry using natural or plastic bristle brush, followed by maximum 600 psi water rinse. Never use muriatic acid on historic brick or stone masonry. Do not use acidic or caustic cleaners that will etch glass, damage paint finishes, or pose environmental risks without adequate protection

DOORS AND DOOR HARDWARE, HISTORIC

Historic doors should be preserved by means of repair and restoration. Unique features such as stained glass, leaded glass, fanlights, and sidelights should also be preserved. Where the severity of door deterioration dictates replacement, new units should match the historic units in design, dimensions, and pane configurations. Replacement doors should have either true divided lights (muntins that penetrate the glass) or simulated divided lights (permanently affixed muntins applied to both the exterior and interior sealed insulating glass unit). Removable or snap-in muntins on glass panes and muntin grids that are sandwiched between layers of glass are not recommended. The restoration of missing, obscured, or modified original door openings is encouraged (Figure 141). Replacement of missing doors shall be substantiated by physical, documentary, or pictorial evidence. Because of the unique sizes of historic doors, replacement exterior doors typically require custom fabrication. Reducing the size of an existing door opening to accommodate a standard-size new door is not appropriate.



Figure 141 Federal style door with period hardware intact. The preservation of period hardware on historic doors is highly recommended.

DOORS – STORM DOORS AND SCREEN DOORS

The paneled front door was a symbol of hospitality and security. When a storm door is required to further protect the front door opening, the storm door design should be simple and should allow the historic door to be visible. While wood storm and screen doors are preferred, simple aluminum doors that are finished with a baked enamel finish matching the historic wood door paint color are also acceptable. Scalloped edges and cross-buck patterns on aluminum storm doors are not appropriate (Figure 142).



Figure 142 *On the left is a historic wood door without the protection of a storm door. The aluminum storm door at the right entrance allows a view of the historic wood door through its large, simple glass panel with negligible visual impact.*

LIGHTING, EXTERIOR

Where historic light fixtures survive, they should be preserved. Reproduction exterior lighting on historic structures should be simple in style, in scale with the building, and appropriate to the character of the building. Polished brass, “colonial style,” and other overly ornamental light fixtures are strongly discouraged. Simple period fixtures or unornamented modern fixtures such as wall sconces, pendants, and post-mounted lamps can be compatible in the Historic District. If exposed conduit cannot be avoided, it should be painted to match the background material on which it is mounted. In addition to these guidelines, all modern lighting is required to comply with the Township’s lighting ordinance. Exterior floodlights and spotlights should be avoided on principal facades. Lighting for signage on historic buildings should be inconspicuous and should be restricted to reasonably low light levels. Yard lighting and parking lot lighting should be post-mounted on maximum 12-foot posts, or mounted on the building. Industrial light fixtures that produce yellowish or pinkish light are not appropriate. Low-wattage metal halide or mercury-vapor sources are allowed, subject to the general requirements contained in this paragraph.

MASONRY CLEANING

Exterior cleaning of historic structures should be done in the gentlest way possible. Destructive techniques such as sandblasting and harsh chemical cleaners are not recommended. High-pressure washing is also not appropriate and can cause damage to structures.

Recommended Cleaning Techniques:

- **Stone, Stucco, and Brick**

Water rinse using maximum 600 psi water pressure at 6 inches from masonry surface using a 15-degree spray tip (or 1,200 psi at 24 inches). For heavily soiled surfaces, apply a diluted mixture of a specially formulated masonry cleaner according to the manufacturer's instructions. After the specified contact time, scrub masonry using natural or plastic-bristle brush, followed by maximum 600 psi water rinse. Never use muriatic acid on historic brick or stone masonry. Do not use acidic or caustic cleaners that will etch glass, damage paint finishes, or pose environmental risks without adequate protection.

MASONRY – PAINT REMOVAL

Generally, the complete removal of paint from historic masonry is not appropriate. Historically, masonry buildings were painted only if the exposed masonry units could not withstand exposure to the weather and were deteriorating. If, during a restoration project, an owner desires to remove paint from stone or brick walls, a spot test should be conducted to assess the condition of the original stone or brick below. If the building has been painted for several decades, an owner may elect to repaint the structure. Prior to undertaking paint-stripping operations, a test panel must be conducted to make sure the masonry is not damaged during the cleaning process. Dry-grit blast cleaning (sandblasting) is never recommended, because it causes irreversible damage to historic masonry surfaces.

MASONRY REPOINTING

Historic masonry requires particular maintenance to be preserved. Natural stone and brick vary in hardness and durability, but generally have a long service life, while mortar joints deteriorate over time and require periodic renewal. Where repointing is required, care should be taken to ensure that the stone or brick is not damaged in the process of removing deteriorated pointing. The new mortar should match the color, texture, and tooling of the original mortar, not the appearance of the surface dirt on weathered pointing (Figure 157). For brickwork, the new pointing should be slightly recessed, struck flat (Figure 157, joint profile 3). For stonework, joint profiles were typically a shallow raised ridge (Figure 157, joint profile 5). The shallow raised ridge profile was chosen not as a stylistic choice but as a practical method of pressing pointing mortar against the edges of the stones in the joint (Figure 143). Deeply struck (recessed) and concave joint profiles are generally not appropriate, except where replicating twentieth-century pointing. For brickwork, the slight recess is important, however, to prevent the mortar from smearing onto the face of the bricks, resulting in an enlarged joint width that is both unsightly and historically inappropriate.

New pointing should not have a high Portland cement content. Mortars rich in Portland cement are harder and less permeable than historic masonry units, causing damage to the brick or stone (Figure 144 & 145). Recommended repointing mortar mixes for Solebury Township buildings are dependent on specific conditions at each building, including the type and quality of the stone or brick, the mortar joint profile, and the condition and appearance of existing mortar. Although specific conditions may indicate a softer mortar mix, the following mixes are appropriate for historic masonry in good condition.

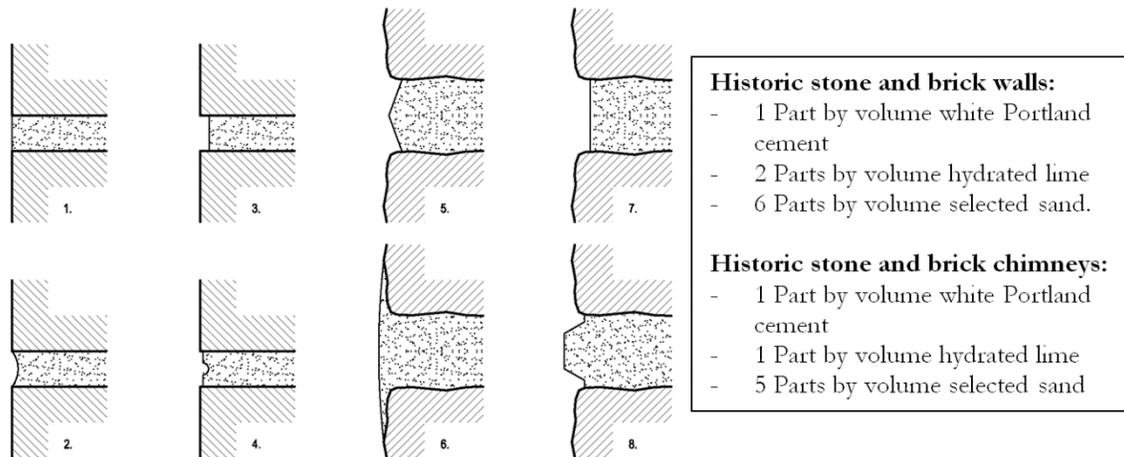


Figure 143 New mortar joint profiles should match the pattern of original pointing. Brick joint profiles shown are [1] Flush, [2] Concave, [3] Slightly recessed – struck flat, and [4] Scribed. Stone joint profiles shown are [5] Shallow raised ridge, [6] Parge pointing (appropriate only where matching existing parge pointing), [7] Recessed – struck flat, and [8] Raised ribbon.



Figure 144 Detail of eighteenth century pointing. The most common joint profile type for rubble stone masonry was the raised ridge joint.



Figure 145 Overly-hard Portland cement mortar restrains the expansion of permeable stone masonry and results in the delamination (loss) of the face of the stone.

MECHANICAL, ELECTRICAL, SOLAR PANELS, FUEL TANKS AND COMMUNICATIONS EQUIPMENT

The mounting of ventilation louvers, registers, exhaust fans, alarm devices, cable boxes, utility meters, satellite dishes, solar panels (attached or detached), fuel source tanks (propane, oil, etc.), security cameras, and other mechanical, electronic, and/or electrical devices should be avoided on primary facades. To minimize their visual impact, devices mounted on secondary facades should either be painted to match the color of the material on which they are mounted or screened by landscaping features. Air conditioning condenser units should be screened and not visible from public view (Figures 146 and 147).

Solar panel arrays can be located on secondary structures and / or in an area of the property such that they are not visible in the public view due to positioning of or installation of screening. Potential reflections from solar panels should in no way adversely affect the viewing quality of historic buildings.



Figure 146 Stainless steel flue run outside of chimney in a National Register-listed residence not located in a zoning historic district.



Figure 147 Restaurant kitchens are very intrusive to historic buildings. To reduce cost, exhaust fans for a commercial exhaust hood were run out the side of this Colonial Revival building instead of through the roof, and a massive electric service was brought to the building aerially.

OPENINGS IN EXISTING WALLS, NEW

Creating new openings in a principal facade is generally not appropriate. New openings in secondary facades are discouraged but may be acceptable. For both principal and secondary facades, proposed new openings in walls should be compatible with the historic character of the building, and should follow the existing rhythm, proportions, and scale of the façade. Large-paned, sliding glass patio doors are not appropriate (Figure 148 & 149). French doors with divided lights, bay windows, and oriel windows will be considered only on secondary facades.



Figure 148 Because of their scale and banal proportions, sliding doors are not appropriate on primary facades in the historic district.



Figure 149 Paint color schemes for historic buildings should be organized according to body color, major trim color, minor trim color, and accent color.

PAINT COLORS AND COLOR SCHEMES

Exterior colors and color schemes should be appropriate to the architectural style and period of the building. Paint analysis and historic documentation are encouraged for the owner who desires specific color information about a historic structure, but it is not mandatory. Certain paint manufacturers offer historically accurate exterior paint colors, including specific palettes for different architectural styles.

In most cases, color schemes can be organized according to the body, major trim, minor trim, and shutter colors (Figure 153). The body color covers wall surfaces, and on commercial buildings includes any storefront piers. In many cases, the body color will be natural stone or a stucco finish and will not require painting. Major trim includes the cornice, window frames, decorative window crowns, storefront cornices, storefront columns, and bulkheads. Minor trim consists of window sashes, doors, and storefront frames. Shutters are typically painted yet another color.

While eighteenth-century and early nineteenth-century buildings historically featured simple color schemes – masonry walls, white exterior woodwork, and dark green shutters and front door, for example – later Victorian styles featured color schemes which might include several colors. However, overly elaborate color schemes, and all color schemes employing multiple pastel colors, are not appropriate. The so-called “painted ladies” are based on popular images of Victorian architecture, not on history.

When a historic building is repainted, the removal of all paint layers to bare wood is not generally recommended. Except for heavily weathered paint, scraping off loose material in preparation for new coats of paint is sufficient. Unpainted masonry surfaces generally should not be painted. Painted masonry surfaces generally should remain painted. In some instances, paint may be removed from masonry, but typically it is not recommended (See [Masonry - Paint Removal](#) on page 127).

On commercial buildings, the paint scheme for the entire building should be coordinated, including building cornice, upper-floor windows and shutters, storefront, and doors. Storefronts should not be repainted without considering the color scheme and condition of paint on the entire facade. Finally, historically unpainted metals, such as brass hardware, should not be painted.

HARB’s policy on the review of exterior paint colors is as follows:

- For applications for additions, new construction, alterations to and repair of existing buildings, HARB will review colors as part of its overall consideration of the application.
- For applications involving the installation of materials with factory-applied finishes or inherent material color (such as roofing shingles, metal gutters and downspouts, pre-finished metal roofing, and natural materials including brick and stone) HARB will review colors as part of a RRIK application review.
- No HARB approval is required for repainting of any element of a building or structure (siding, doors, windows, gutters, fencing, gates, garages, storage sheds, etc.) visible from the public view, with the exact color(s) previously used. An exact match in color or hue in this circumstance means near indiscernible variation in intensity, value, and sheen (flat, low-luster, soft gloss / satin, semi-gloss, high-gloss).

PORCHES AND STOOPS, HISTORIC

Historic porches and stoops are important character-defining features of the village streetscape of Solebury Township (Figure 150). Porches were sometimes added to earlier structures, and are significant additions warranting preservation. The original materials, configurations, details, and dimensions of a historic porch or stoop should be preserved or restored. Where components are severely deteriorated and require replacement, new components should replicate the original in material and design. Replacement porches and stoops should be based on physical or pictorial evidence. If this evidence is not available, a simple design that avoids elaborate detail should be employed. Neither replacement vinyl railing systems nor railings fabricated from unpainted pressure-treated wood are recommended (Figures 151 and 152). See [Porches and Stoops](#) on page 151 for additional information on replacing porch components.



Figure 150 Preserved historic porch on Thomas Carver House, Aquetong Road, Carversville Historic District. Note the wood-framed porch and porch deck, wood steps, stone walks and steps, stone retaining walls, and stone sidewalk.



Figure 151 Inappropriate porch alterations extended this historic porch outside of its roofline replaced the original railing with an interior railing system utilizing widely spaced, undersized, balusters.



Figure 152 Vinyl railing systems lack the detailing, scale, and finish of wood railing systems.



Figure 153 Massive stone end chimneys of the Thomas Carey Farmhouse, Crystal Spring Creamery, c. 1795, Carversville Historic District.

ROOF FEATURES - CHIMNEYS, HISTORIC

Historic chimneys are significant components of a building's architectural character (Figure 153). A replacement chimney should be an accurate reproduction of an original chimney and based on physical or pictorial evidence. Although historic chimneys frequently used stucco as a maintenance measure, the treatment is not recommended. Where an interior chimney is removed as part of a proposed alteration, the exterior portion of the chimney should be preserved or reconstructed to retain the historical appearance of the structure.

ROOF FEATURES - DORMERS AND CUPOLAS, HISTORIC

Examples of significant historic gable, hipped, segmental arch-head, and shed dormers exist in Solebury Township Historic Districts (Figures 154, 155, and 156). The construction of new dormers or a cupola on any principal facade of an existing building is not appropriate, except where dormers already exist in the immediate neighborhood, defined as the buildings flanking the subject building and the three buildings directly opposite the subject building. If physical and pictorial evidence proves that either of these features originally existed, the reconstruction of the original feature is encouraged. New dormers are more acceptable on secondary facades. New shed, gable, and segmental-arch dormers should be compatible in size, scale, and proportion with the original facade, and their placement should relate vertically to the building's fenestration (Figure 157). The overall width of dormers should be no wider than one-half the overall roof width (Figure 158).

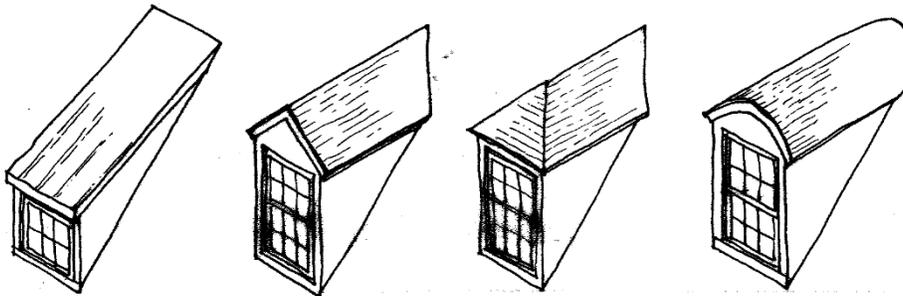


Figure 154 Types of dormer forms from left to right: Shed, Gabled, Hipped, Segmental-arched



Figure 155 Over-scaled gabled dormers of the William Lathrop House in the Phillips Mill Historic District.



Figure 156 Simple shed dormer on the Cooper Shop in the Phillips Mill Historic District.

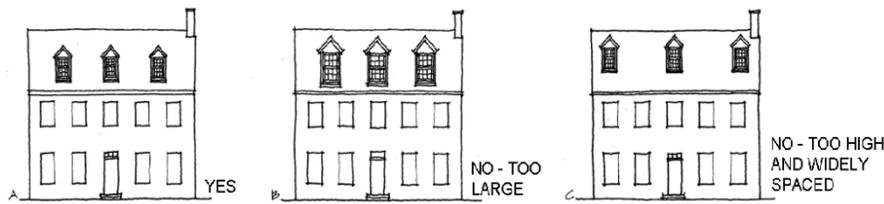


Figure 157 Dormers should be carefully sized and placed to create a harmonious composition.

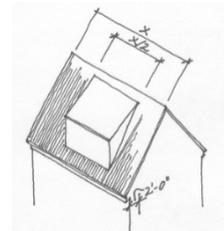


Figure 158 Dormer sizing example

ROOFING - ASPHALT SHINGLES

Asphalt shingle roofing is not recommended on roof slopes that are visible. If asphalt shingles are proposed for a visible roof, it is recommended that the shingles be heavyweight, dimensional shingles that resemble historic materials. A color similar to the historic roofing material is recommended. White and light green asphalt shingle roofing, for example, cannot be appropriate because wood and slate in these colors are not found in nature.

For buildings with existing asphalt shingle roofs, owners are encouraged to research their properties, determine the historic roofing materials, and replace existing asphalt shingles with the appropriate historic material. For small buildings, buildings with low eave lines, and roofs that are highly visible because of the sloping terrain, asphalt shingles are particularly problematic.

The prominence of the roof and the height and angle of the roof as seen by a pedestrian or passing automobile will be factors that the HARB will consider in its evaluation of each individual roof replacement proposal (Figure 159). The roofing material used on a sloping porch roof or storefront cornice is near to the viewer and, therefore, visually very important. In contrast, a shallow pitch, say 3-in-12 slope, gable roof on a three-story building may not be visible from a public way and therefore not visually important. However, on a building with a Mansard roof, as much as one-third of the visible face of the building is the roofing material. To replace the slate shingles on a Mansard roof with asphalt shingles would be analogous to replacing a brick facade with vinyl siding, and is not recommended.

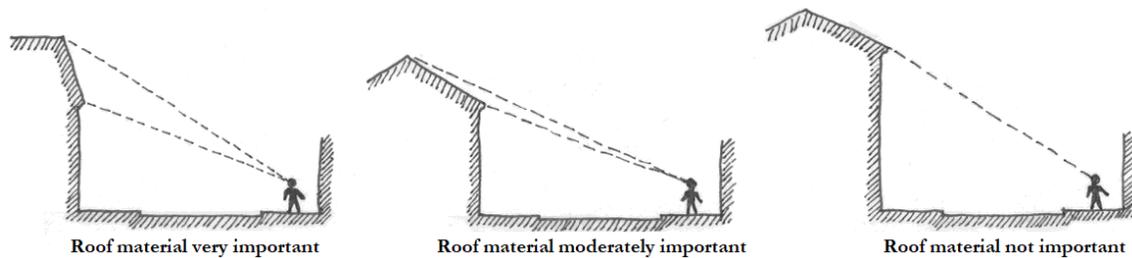


Figure 159 The prominence of a roof and the height and angle of the roof when seen by a pedestrian or from a passing automobile will be factors that HARB considers in its evaluation of each roof-replacement proposal.

ROOFING - GENERAL, HISTORIC

Significant historic roofing materials and features that are visible from the street should be preserved. Efforts should be made to retain and repair original roofing that is visible from the street. Where the material is too deteriorated and replacement is necessary, new roofing materials should replicate the original roofing material used on the historic building. Building owners are encouraged to investigate to determine the original roofing materials, either by means of looking at historical photographs or by physical examination of the roof sheathing by a knowledgeable roofer. Typical historic roofing materials used on sloping roofs in the Solebury Township Historic District were wood shingles, slates, and standing seam metal.

Flat roofs are not addressed in these Design Guidelines, and no Certificate of Appropriateness is required to obtain a building permit for the replacement of a flat roof.

ROOFING – GUTTERS AND DOWNSPOUTS, HISTORIC

When hung gutters and downspouts are replaced, the use of half-round gutters and smooth round downspouts is historically appropriate and thus recommended for historic buildings (Figure 160). New copper, terne-coated stainless steel, and lead-coated copper gutters and downspouts may be allowed to weather naturally, but aluminum and galvanized steel gutters, downspouts, and leader boxes should be painted to blend in with the color of the building to reduce their visibility. Vinyl and PVC gutters and downspouts are not appropriate because of their awkward fittings and non-traditional shapes. Built-in gutters and pole gutters (water diverters) are not common in the historic districts, but where existing, they should be preserved.

ROOFING – METAL, HISTORIC

The continued maintenance of existing metal roofing is highly encouraged (Figure 161). The replacement of severely deteriorated metal roofing with new metal roofing is also highly encouraged. Traditional standing-seam metal roofing, painted, is encouraged for re-roofing projects and new roofs. However, pre-formed standing-seam roofing which utilizes low profile (1-inch height) seams may also be acceptable.

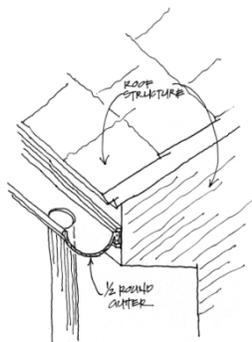


Figure 160 Hung gutters are common on Solebury Township buildings. Half-round gutters and smooth-round downspouts are recommended.



Figure 161 Tenant Farmhouse, Phillips Mill Historic District. The preservation of historic standing seam metal roofing is encouraged.

ROOFING – SLATE SHINGLE ROOFING, HISTORIC

Slate shingle roofing replaced wood shingle roofing in large cities because slate was fireproof. In rural areas, slate shingle roofing was also desired because it was noncombustible and durable, and in the late nineteenth century for its decorative qualities.

The continued maintenance of existing slate roofing is highly encouraged and less expensive than replacement with a substitute material (Figure 162). The replacement of severely deteriorated historic slate roofing with new slate roofing is also highly encouraged. On buildings with Mansard roofs, the replacement of slate with standard asphalt shingles is not appropriate. On buildings with gable or hipped roofs, replacement of slate with asphalt shingles is discouraged but acceptable.

ROOFING – SUBSTITUTE MATERIALS

Substitute materials that closely replicate historic roofing are acceptable. For example, recycled rubber/polymer shingles or fiber-reinforced cement shingles that resemble slate cost less than a natural slate roof but visually simulate slate. Care should be exercised in the selection of substitute roofing materials because their service life is often unproven.

ROOFING – WOOD SHINGLE ROOFING, HISTORIC

Until the middle of the nineteenth century, almost all roofs in rural Solebury Township were covered with wood shingles. Early shingles were fabricated from locally grown pine, oak, or Atlantic white cedar, but by the end of the nineteenth century were generally western red cedar. Replacement of deteriorated cedar shingle roofing with new cedar shingle roofing is highly recommended (Figure 163).



Figure 162 Slate roof in Phillips Mill residence. Although a few slates in the center have been broken by mechanical damage (probably a tree limb), replacement of the broken slates is readily accomplished without disturbing surrounding slates.



Figure 163 Kirk Homestead, Carversville Historic District. Because of the prominence of the roofs of colonial vernacular houses, the preservation of historic wood shingle roofing is especially important.

SIGNAGE

Signs should be compatible with the scale, proportion, form, and architectural detailing of the building to which they are applied (Figure 164). Projecting signs (hung perpendicular to the wall on a decorative bracket) and wall-mounted signs that are rectangular, square, or oval are appropriate to the majority of historic buildings. Free-standing signs are appropriate for buildings that are set back from the front lot line and fronted by landscaping. A traditional sign type such as wood with either carved or painted lettering is highly encouraged. Signs should not obscure any architectural detail. Appropriate colors for signs were traditionally intense versions of building colors - high-gloss bottle green, olive, golds, and burgundies. On commercial buildings with a storefront, signs should be placed in the signboard area located above the storefront windows and below the upper-story windows.

- **Corporate Logos**

Corporate logos and standard corporate lettering styles that are non-traditional should be de-emphasized in the signage design for a historic building. Creative graphic solutions, in which the corporate logo or corporate lettering style is a secondary element, are encouraged.

- **Signage Lighting**

Where signage lighting is required, small gooseneck or hidden lights are recommended. Internally illuminated signs are not recommended, except for channel letters at appropriate locations.

- **Address Numerals**

Street address numerals should be simple in style, with characters not more than 4 inches high. Script styles and the spelling-out of the address should be avoided.

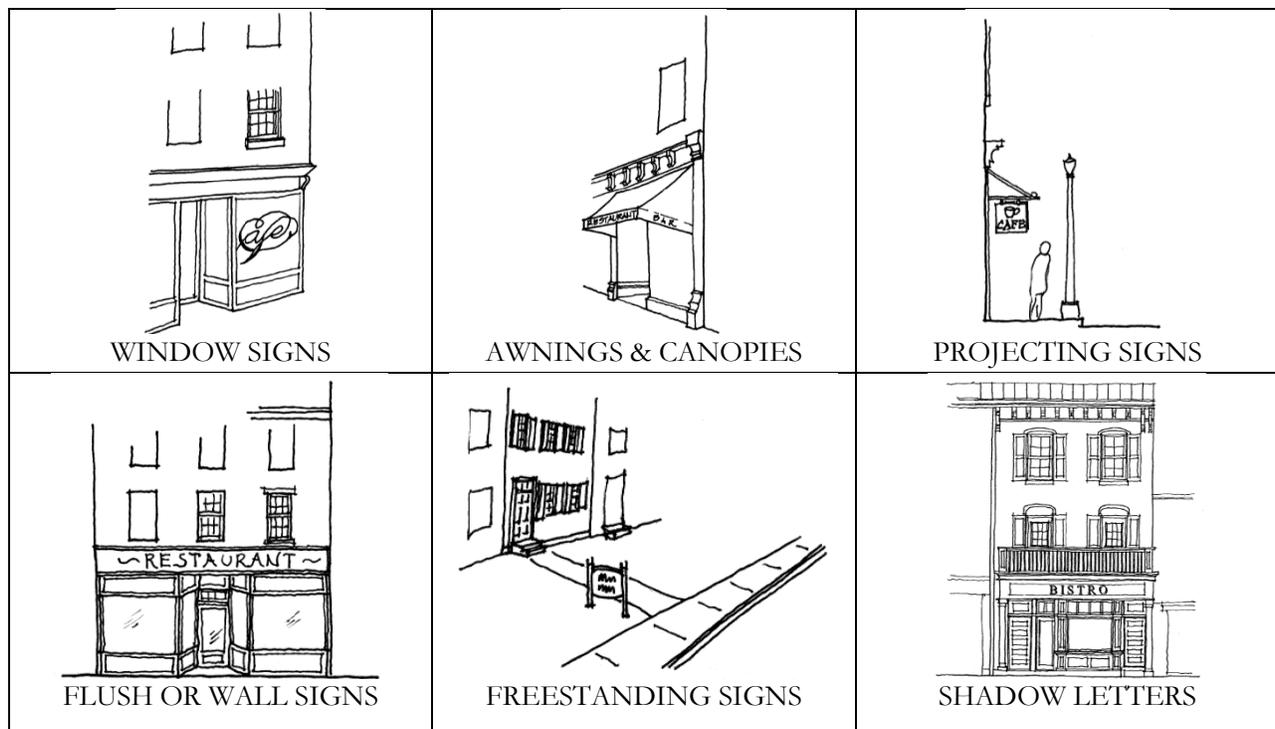


Figure 164 Diagram of sign types

SKYLIGHTS IN HISTORIC ROOFS

Skylights may be installed on secondary facades (See [Primary and Secondary Facades](#) on page 119), but are not appropriate for primary facades. Where used on secondary facades, skylights should be low-profile, flat-glazed construction, and mounted close to the roof. Careful consideration should be given to the placement of skylights. Skylights should relate vertically to the overall fenestration of the façade (Figure 165).

STOREFRONTS, HISTORIC

Storefronts help to define commercial buildings in village settings. Storefronts are vital to the visual character of the streetscape and provide an understanding of the extent of commercial activity in a historic village setting. The scale and architectural detailing of historic storefronts create a richness and sense of visual satisfaction that is lacking in automobile-oriented retail settings (Figure 166).

Most historic storefronts in Solebury Township date from the late nineteenth or early twentieth century. Earlier shop windows were essentially large house windows, with sashes fabricated from many small panes of glass. The development of plate glass in the 1850s coincided with changes in retailing brought about by the industrial revolution. As more manufactured goods became available, competition for customers led merchants to increase their storefront display area. Existing buildings were altered to make the ground floor as transparent as possible and new buildings were constructed with iron beams that supported the upper-floor masonry walls without reducing the storefront.

Existing historic storefront windows and doors should be preserved, even when the use of the first-floor space is not retail.

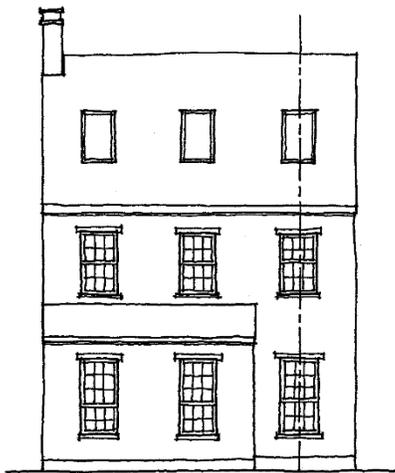


Figure 165 While skylights are not recommended on primary facades, they may be added to secondary facades if they are incorporated into the overall pattern of doors and windows. Skylights should align vertically with windows in the wall below.

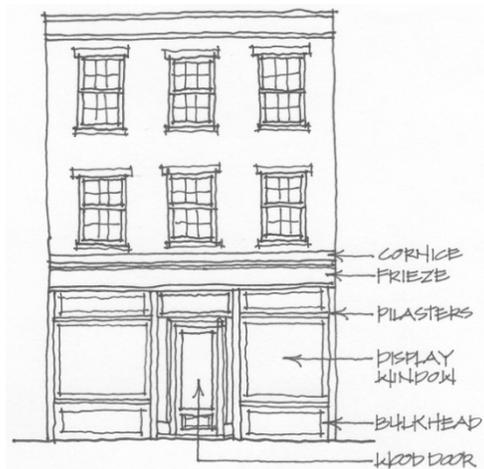


Figure 166 Glossary of storefront components.

STOREFRONTS – NEW STOREFRONTS IN EXISTING BUILDINGS

In existing buildings, new storefront design should be based on the historic storefront that formerly existed at that location, as evidenced by surviving physical evidence and historic photographic views. Where no evidence exists, the new storefront design should be appropriate to the construction date and style of the building. The detailing of new storefronts should be traditional architectural woodwork, with genuine stile-and-rail doors and bulkhead panels. Pent roofs and plywood panels with applied moldings are not appropriate (Figure 167).

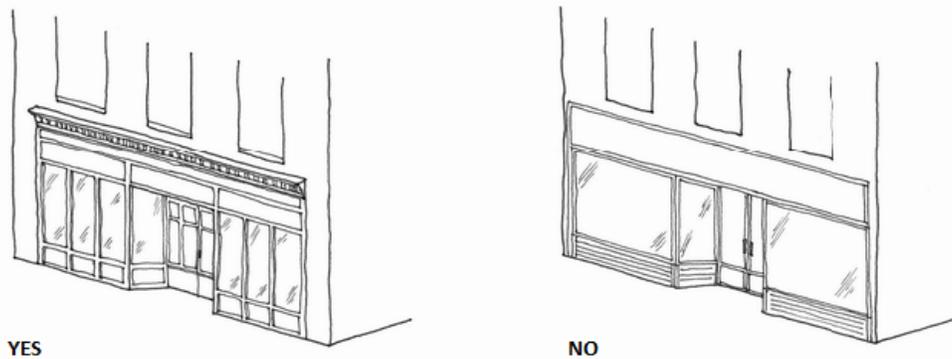


Figure 167 Two storefront designs for the same building. The left design is not a literal reproduction of a period storefront, but its scale relates to historical storefronts. The right storefront lacks human scale and vertical proportions.

STREET ADDRESS NUMERALS

Street address numerals should be simple in style, with characters not more than 4 inches high. Script styles and the spelling-out of the address should be avoided.

STUCCO, HISTORIC

The removal of stucco (traditionally a blend of lime and sand, more recently lime, cement, and sand) to expose original historic masonry is sometimes desirable; however, many stone structures were originally roughly laid and covered with a lime plaster. In this case, the lime plaster should not be removed, but rather preserved or replaced. Prior to deciding on a course of action, a test panel should be prepared to determine the feasibility and appropriateness of removing existing exterior stucco. A member of HARB may be requested to visit the property to help verify the historic authenticity of the stucco. Where the stonework was originally exposed and pointed, the test panel should expose surviving original mortar joints. Where, in contrast, the stone masonry was built with the intent of applying a stucco finish, the underlying stonework was typically laid up with small stones and little regard for the aesthetics of uniform mortar joint widths. Where stucco is determined to have been added, great care should be taken in removing stucco to avoid damage to the historic stone below.

When restoring historic stucco finishes, the new stucco should be applied using traditional methods, and finished to match surviving historic stucco. On masonry walls, the stucco should be applied directly to the masonry substrate, not to metal lath. Synthetic stucco finishes and factory-mixed stucco finish coats are not recommended. Pebble-dash stucco, in which uniformly graded pebbles were cast (“dashed”) into the freshly laid stucco, is the most distinctive stucco finish found on Solebury buildings (Figure 168).



Figure 168 Detail of historic pebble-dash stucco, store building, Carversville Historic District.
Surviving historic pebble-dash stucco is not commonly encountered.

STUCCO, NEW APPLICATIONS ON EXISTING BUILDINGS

Although stucco was often applied to historic buildings as a maintenance treatment, its application on surviving historic stone masonry is not recommended. When stucco is applied to historic stonework, the masonry loses its surface texture, mottled color, and significance.

WALL SIDING AND TRIM, HISTORIC

While many buildings in Solebury Township Historic Districts are stone masonry, many houses, house additions, barns, and out-buildings are wood-frame construction. Siding should be appropriate to the building. In Solebury Township, wood siding on houses is typically horizontal clapboarding, either a beveled profile or a drop siding profile (“German siding”), while siding on barns and some outbuildings is often vertical-board siding, with or without batten strips at the joints between boards (Figure 169). The visual character created by the texture and pattern of historic siding should not be altered by its replacement with different siding profiles or non-historic siding materials. In the Historic District, aluminum siding is not appropriate substitute materials except on secondary facades. The removal of existing synthetic siding and its replacement with historically appropriate siding is encouraged. Wood trim elements such as corner

boards, window and door surrounds, brackets, moldings, and other decorative features should also be repaired or replaced to match their historic appearance.

The cladding (wrapping) of exterior woodwork such as cornices, corner boards, fascias, projecting bays, brackets, window and door frames, porch framing and trim, and other exterior woodwork with sheet aluminum or vinyl is not appropriate. Not only does the cladding cover historic wood moldings and architectural detail, but it also causes the covered woodwork to deteriorate due to moisture that becomes entrapped under the sheet material.



Figure 169 The traditional wood siding for Solebury Township is horizontal clapboarding, while outbuildings may have either vertical-board or horizontal-clapboard siding.

WINDOWS – PRESERVATION OF HISTORIC

The number, location, size, and glazing patterns of historic windows should be preserved by means of repair and restoration. Unique features of historic windows such as stained glass, leaded glass, and transoms should also be preserved. Where the severity of window deterioration dictates replacement, new units should match the historic units in design, dimensions, and pane configurations. Replacement windows should have either true divided lights (muntins that penetrate the glass) or simulated divided lights (permanently affixed muntins applied to both the exterior and interior sealed insulating glass unit). Removable or snap-in muntins on glass panes and muntin grids that are sandwiched between layers of glass are not recommended. The restoration of missing, obscured, or modified original window openings is encouraged. Replacement of missing windows shall be substantiated by physical, documentary, or pictorial evidence. Replacement vinyl and stock aluminum panning windows are not recommended on primary facades. Glass used in new windows should be clear; tinted glass, reflective glass, opaque glass, and other non-traditional glass types are not appropriate in the Historic District.

WINDOWS – REPLACEMENT WINDOWS

Several window manufacturers offer one or more lines of “replacement windows,” which may be wood, clad wood, aluminum, or vinyl. “Replacement windows” usually refer to new windows that mount within the frame of the existing wood window. They are typically made without a structural frame; instead, they rely on the strength of the original window frame for support. Wood replacement windows are offered in a range of qualities, design features, and costs. The best ones may be ordered custom-sized to the sash opening of the original window. The sashes may be ordered with genuine muntins or with muntin grids that are applied to the interior and exterior face of a single panel of sealed insulating glass. This type is marketed as a “simulated divided light” window.

Replacement windows should be considered only as an option to replacing severely deteriorated or missing historic wood sashes. Replacement windows are not a panacea to avoid future painting and maintenance of exterior woodwork. Replacement windows are not justified in the Historic District as a method of improving the thermal performance of windows. Storm windows are the appropriate method of achieving that goal.

Vinyl and aluminum replacement windows are not recommended in the Historic Districts.

Any proposed replacement window should be custom-sized to the original sash opening. Applying filler strips around the perimeter of a replacement window reduces the size of the glass area, makes the frame members awkwardly wide, and is not appropriate in the Historic District (Figure 170).

For original sashes with multiple panes, the replacement window should match the existing pane configuration. True or simulated divided lights are recommended in the proposed replacement window. Snap-in grids, whether interior or exterior, are not appropriate. Muntin grids applied only between layers of sealed insulating glass are also not appropriate.

Visible door hardware should be compatible with the architectural character of the building. The preservation and repair of historic door hardware is encouraged. Buzzers, intercoms, and mailboxes should be located to have minimum visual impact on building entrances.

In order for replacement windows to be considered by HARB, the applicant must prove that their existing window(s) are “severely deteriorated or missing.” This requires a single window survey in the case of an individual window or a window by window survey, either of which must document the existing condition of the window(s) to be replaced as well as photographs that clearly depict the extent and severity of the deterioration. A site visit may be conducted by HARB prior to the formal application review at a public HARB meeting. See [Windows and Doors](#) on page 43 for additional information.



Figure 170 Standard size vinyl replacement windows fitted to window frames by means of wood filler strips destroy the original proportions of the windows and are not recommended.

WINDOWS – WINDOW SURVEY FORM

The survey form documents the existing condition of each of the windows where work is proposed. If no work is planned for a certain window, it does not need to be included on this form. Although it is recommended that the survey be conducted and completed by someone who is knowledgeable in architecture or building trades, it is also possible for a homeowner to complete the survey themselves. Figure 185 demonstrates the information that must be provided on a Window Survey Form.

Window Survey Forms can be created by the applicant using the format suggested below, or you can use the blank [Window Survey Form](#) provided in the appendix (See page 171).

Window ID #	Material Type	Config	Age	Sash		Frame		Sill	
				Photo #	Condition	Photo #	Condition	Photo #	Condition
W101	Wood	6-over-6	~ 1970	01		02		03	
E101	Fiberglass	2-over-2	Unknown	04		05		06	

Figure 171 Sample Window Survey Form. See the column explanations below for more information.

- Window ID #**
 Each window should be given a unique number. Typically, each window is identified by the compass direction (North, South, East and West) of each elevation along with a three-digit number (First floor 100, Second Floor 200, Third Floor 300). For example, a window on the west elevation of the first floor would be W101. These numbers should be documented on an overall view of each elevation of the house. This can be in the form of an architectural drawing or photograph and is required to show a number for each window as well as to show the overall fenestration of the house.
- Material Type**
 Material is likely wood but could also be aluminum, vinyl, metal or fiberglass. Type is typically double hung but could be casement or hopper (awning sash often found at basement level).
- Configuration**
 The number of lights in the sash. Typical to the districts are 6-over-6 and 2-over-2 but others may exist.

- **Age (Approximate Date of Installation)**

We understand that this can be a difficult question to answer. The Historic Carversville Society has completed a report on the majority of the houses within the District, which may shed light on this question. Outside of this, you may attempt to identify the date of the window relative to the rest of the windows in the house. For example, is the window in question newer or older compared to other windows in the home? Or is there unique hardware that the HARB can use to help date the windows?

- **Condition and Photographs**

The condition section is intended to identify the extent of deterioration in each window and to provide a decision base as to whether the windows should be repaired or replaced. See [Windows – Replacement Windows](#) on page 141 and [Windows and Doors](#) on page 43 for more information about how to analyze the condition of your windows.

Because a window is made up of several parts, we ask that each part be documented separately. Extent (depth and length), degree (partial, severe or complete), and location of deterioration should be documented in accompanying numbered photographs.

In addition to the window survey form, HARB requires the following items:

1. **Overall View of Each House Elevation**

This can be in the form of an architectural drawing or photograph and is required to provide a number for each window as well as to show the overall fenestration of the house.

2. **Exterior Photograph of Each Individual Window Where Work Will Occur**

All full frame photographs should be identified by the window number followed by a separate, unique photograph number. For example, a photograph of a first-floor west window could be numbered W101-1.

3. **Interior Photograph of Each Individual Window Where Work Will Occur**

Photographs should follow a similar numbering pattern as described above.

4. **Close-Up View of Deterioration Where Repair/Replacement is Requirement**

This includes intersections of sills and frames (exterior), bottom rail and muntins (exterior), and sills and bottom rails (interior). All photographs should follow the same numbering pattern.

WINDOWS – SHUTTERS AND BLINDS

Historic shutters (solid panels) and blinds (louvered panels) should be preserved. Historically, shutters and blinds were employed to provide night security and shading from the sun. Paneled shutters were used on the ground floor and louvered blinds were used on upper floors. Where historic exterior shutters and blinds survive, they should be carefully preserved and repaired. If no shutters or blinds are present but there is evidence that they once existed (as evidenced in either historic photographs or surviving pintle hinges), their replacement as part of any proposed rehabilitation project is encouraged. If no vestige of shutters or blinds exists, they should not be added to a building.

Replacement shutters and blinds should be painted wood, properly sized, and appear operable (Figure 172). Plastic and metal shutters are not recommended. Shutters should measure one half the width of the historic sash, and match the height of the opening. Shutters and blinds should be mounted on hinges or pintles and held open with shutter turns or shutter dogs. Traditional hardware should be used whenever possible: salvaged, refurbished, or replaced with like-kind components. Mounting shutters or blinds directly onto any historic wall material is not appropriate.

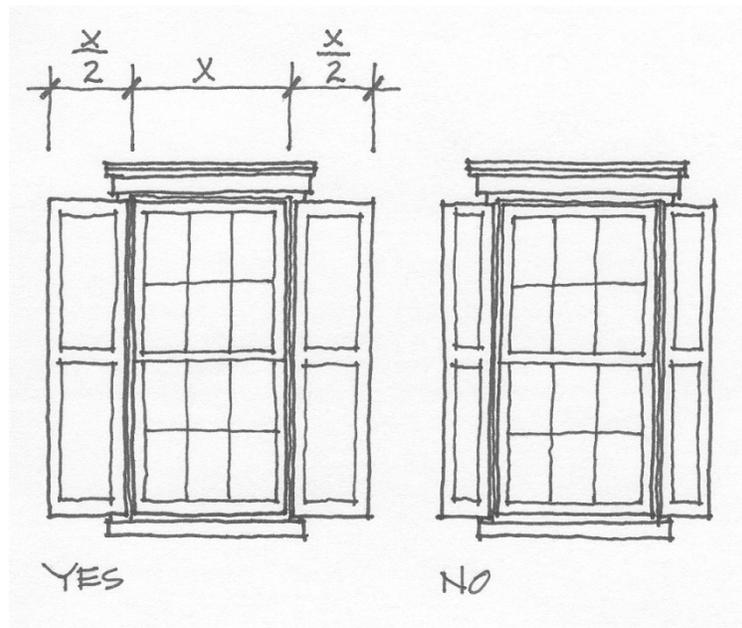


Figure 172 Replacement shutters and blinds should be painted wood, properly sized to sash opening, and appear operable.

WINDOWS – STORM WINDOWS

Improving the thermal performance of historic wood windows is often desired by owners of historic buildings. The specific solution to each thermal upgrade problem depends on numerous factors, and no single approach is applicable to all conditions. Traditionally, storm windows were constructed of wood and glass. Many house owners owned two sets of removable panels: wood-and-glass storm windows for the winter season, and wood-and-screen panels for the summer season. Cleaning and changing the screen and storm panels were spring and fall rituals. Few houses retain their wood screens and storm windows, and fewer still are changed seasonally. Where surviving, historic wood storm windows and screens should be retained. Many residences are now equipped with triple-track storm windows that allow for a complete layer of glass over the entire original window or an insect-screen panel over half of the window.

- **Three-Track Storm Windows**

For buildings with double-hung-sash wood windows, aluminum three-track windows with a factory color-coat matching the window trim are appropriate. While at first thought this may be surprising, the metal storm window preserves the original wood sashes as well as improves the window thermally, and at the same time is entirely reversible. Mill-finish aluminum is not an appropriate storm window finish. The storm panels should be glazed with clear glass. The horizontal rails of the storm window should align with the meeting rails of the original window. Storm windows should be sized exactly to the historic wood window. For buildings with casement-sash wood windows, aluminum storm panels that clip directly to the wood sashes are recommended (Figure 173).

Interior Storm Windows

Interior storm windows, usually fabricated with a narrow white aluminum frame and clear glass or plastic (acrylic) glazing and mounted on magnetic strips, are suitable for applications where the building is fully air conditioned and windows are not opened for ventilation. Interior storm windows are especially desirable for buildings with multi-pane sashes, because the pattern of broken light on multi-pane sashes is an important visual feature that is lost when covered with three-track storm windows (Figure 174).



Figure 173 Three-track storm window with stock color finish. For one-over-one double-hung sash windows, three-track storms are a recommended treatment.



Figure 174 Interior storm window glazed with clear glass.

GUIDELINES FOR NEW CONSTRUCTION

The following guidelines pertain to new construction in the Solebury Township Historic Districts of Carversville and Phillips Mill. New construction includes additions to historic buildings, new structures along primary streets, and secondary structures such as garages, sheds, outbuildings, or workshops.

VISUAL RELATIONSHIP BETWEEN THE OLD AND NEW

A new building or addition should relate visually to neighboring contributing historic buildings. Proposals for new designs within the Historic District will be considered for their specific location and will be evaluated based on their compatibility with neighboring historic structures. For a typical building, neighboring historic structures include those to each side of the structure and those directly across the street from the structure. For a new building located at a corner, the neighboring historic structures include all buildings at the intersection in addition to those immediately adjacent. Where a building falls near the edge of the Historic District, historic buildings located near but outside of the district will also be considered during the review process.

RELATIONSHIP OF ADDITIONS TO HISTORIC BUILDINGS

A proposed addition to a building in the Historic District should be subordinate to the principal facade and mass of the historic building. The subordinate appearance of an addition can be achieved through its setback, massing, width, and detail (Figure 175). The width of an addition should generally not exceed two-thirds the width of the principal historic structure.

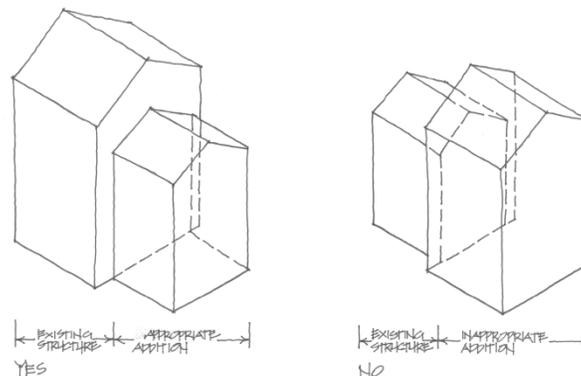


Figure 175 An addition to a historic building should be a secondary form that preserves the form of the historic building. A proposed addition should be no larger than two-thirds the street frontage of an existing building.

ROLE OF MODERN DESIGN

The most successful new buildings in historic districts are ones that are clearly modern in design but compatible with and sensitive to the character of the Historic District. The experience of the Historic District is enriched by new buildings that have merit on their own and are sensitive to their setting in a Historic District.

ACCESSIBILITY - ADDITIONS

Where possible, a building addition to a public building should be designed to include features that make up for any accessibility deficiencies of the original building. This approach can eliminate the need for intrusive alterations to the original building.

ACCESSIBILITY – NEW BUILDINGS

All new buildings except private homes and churches are required by law to be accessible to persons with disabilities. New buildings in the Historic District should be designed with integral accessibility features, so that changes in level are accommodated within the new building, not at the building exterior.

BUILDING PLACEMENT AND SETBACKS - ADDITIONS

Historically, most additions to buildings in a village context were built at the building rear facade because there was no available building lot area on the street façade (Figure 176). These additions were often built up to the side yard lot lines, and had minimal visual impact on the appearance of the village. Proposed additions should follow the pattern of setbacks of adjacent buildings and building additions in order to blend into the development pattern of the immediate neighborhood.

BUILDING PLACEMENT AND SETBACKS – NEW BUILDINGS

Setbacks for new construction must comply with the zoning ordinance. Historically, the building type and landscape setting dictated the structure's setback from the street. For buildings in a village setting, commercial buildings such as taverns, inns, retail shops, and stores fronted directly onto the street or walk. New construction in the district should follow the precedent of adjacent lots. For buildings in an agricultural setting, setbacks varied, depending on the lay of the land and the most desirable placement of the barn. New buildings should be located in traditional agricultural relationships to each other.

BUILDING PLACEMENT AND SETBACKS – SECONDARY STRUCTURES

Outbuildings play an important role in the significance of both the Carversville and Phillips Mill Historic Districts. In Carversville, outbuildings reached by driveways between houses historically provided support functions to the dwelling, including the functions of carriage house, chicken house, garden outbuilding, and later automobile garage. In Phillips Mill, the vitality of the arts community was expressed in outbuildings, which have been converted to various functions over time, including art studio, office, apartment, and other functions. Garages, sheds, workshops, and other new outbuildings should be placed behind and remain visually secondary to the principal building on the lot (Figure 177). Side and rear setbacks should follow the general pattern of the placement of outbuildings in the immediate neighborhood.



Figure 176 Due to the width of lots within Carversville, additions are typically to the rear. In contrast, farmhouses in the open countryside often extend to the side.



Figure 177 Visible behind the Thomas Carver House on Aquetong Road is a small barn and other outbuildings.

DECKS

Wood decks that are visible from a public way are not recommended. They are permitted when carefully designed to be integral to the overall design of the residence. Deck floor elevations should be no higher than the first-floor elevation. The total deck area should not exceed 25% of the livable area of the first floor of the proposed residence. Railings should be a simple picket design. Privacy screens are not recommended. Arbors of a simple design, constructed of wood, may be permitted, subject to specific design. The exposed structure under the deck should be screened by landscape plantings or by wood lattice (Figure 178).

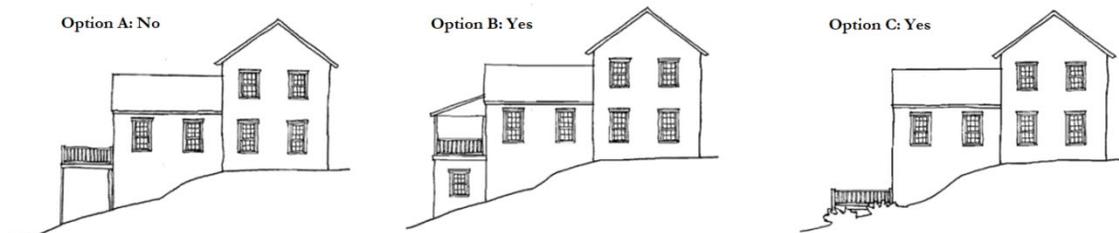


Figure 178 In Carversville, wood porches are an important visual element. Modern pressure-treated wood decks are not recommended where visible from a public way. Option A (Left): For secondary locations, elevated wood decks supported by pressure-treated wood posts are not recommended. Option B (Middle): If a main level deck is desired, the deck should be constructed as a traditional porch, supported by ground floor masonry walls, and roofed over. Option C (Right): The most recommended placement of a deck is less than 4 feet above the ground, so that the deck, when viewed from a street, blends into the terraced hillsides.

HEIGHT AND FORM - ADDITIONS

The cornice line on the principal facade of an addition should be equal to or lower than the cornice line on the principal facade of the historic structure (Figures 179 and 180). Likewise, the ridge line of an addition should be equal to or lower than the ridge line of the historic structure. The form of new buildings should be compatible with the form of adjacent historic structures.

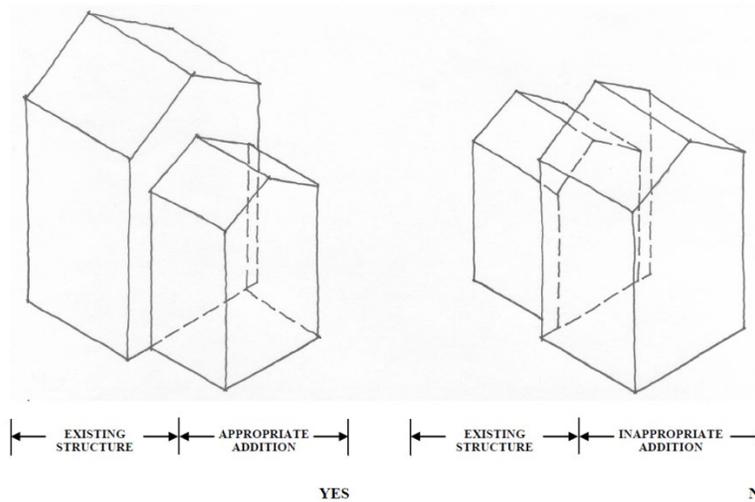


Figure 179 An addition to a historic building should be a secondary form that preserves the form of the historic building. A proposed addition should be no larger than two-thirds of the street frontage of an existing building.



Figure 180 The ridge line and cornice line of an addition should be lower than the ridge line and cornice line of the original structure, and the volume of the addition should be less than that of the primary structure.

HEIGHT AND FORM – NEW CONSTRUCTION

The eave line and ridge line of a proposed new structure should not exceed the height of the eave line and ridge line of flanking historic structures. The height and overall size of any proposed new secondary structure should not exceed the height and overall size of the principal historic structure on the lot where it is to be constructed.

LIGHTING

Exterior lighting of additions and new buildings should be simple and in scale with the building. New fixtures should be simple, unobtrusive, and mounted in a traditional manner. Exterior recessed downlights, if proposed, should be placed to avoid dramatic light patterns on the proposed building facade. All proposed lighting is subject to Solebury Township Lighting Regulations.

MECHANICAL, ELECTRICAL, SOLAR PANELS, FUEL TANKS AND COMMUNICATIONS EQUIPMENT

The mounting of louvers, registers, exhaust fans, alarm devices, cable boxes, utility meters, communications equipment, and other mechanical and/or electrical devices should be avoided on principal facades. To minimize their visual impact, devices mounted on secondary facades should either be painted to match the color of the material on which they are mounted or screened by landscaping features (Figure 181). Air conditioning condenser units should be screened from public view.



Figure 181 A unique trash can enclosure along Aquetong Road, Carversville Historic District.



Figure 182 Example of a new garage that is compatible with its historic setting through the use of traditional board-and-batten siding, gabled roof, storage loft, and placement on the lot.

OUTBUILDINGS

New outbuildings should visually relate to their historic context (Figure 182). Outbuildings should be simple in design, and should relate to the period of construction of the principal building on the lot. The design of outbuildings should not be overly elaborate. Depending on the placement of the building lot on the street, a proposed outbuilding will be treated as either a primary or secondary facade.

PORCHES AND STOOPS

New porches and stoops are encouraged on streets where porches and stoops are common. On additions, porches or stoops should be simple in design and visually relate to the existing building. On new structures, porches or stoops should visually relate to the proposed building in a manner similar to the relationship of historic porches to existing historic buildings in the district.

RELATIONSHIP OF THE FAÇADE PARTS TO THE WHOLE

All parts of a new building facade should be visually integrated as a composition, which should relate to adjacent buildings (Figure 183). The size and proportions of facade elements such as doors, windows, cornices, and water tables emphasize the vertical and horizontal dimensions of a facade.

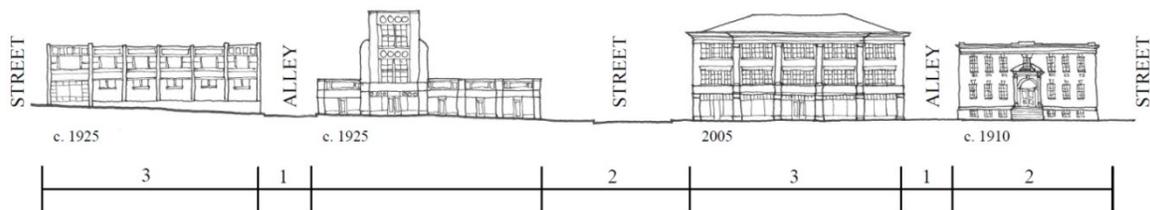


Figure 183 Infill buildings should be designed to maintain the rhythm of buildings in the streetscape as well as be inherently harmonious. The 2005 infill building incorporates the forms, window types, materials, and massing of adjacent buildings.

REPLICATING HISTORIC BUILDINGS

The design of a new building should not be an exact replica of any existing historic building within the district. Copies of historic buildings among original ones look awkward and present a false historic context. However, a new structure's design may be inspired by historic building designs and features, and may be traditional in form and detailing.

ROOFS - FEATURES

- **Dormers**

Dormer design, proportions, and placement on additions and new buildings should be compatible in size, scale, proportion, placement, and detail with the historic gable, hipped, segmental arch-head, and shed dormers found in the Historic District. Shed dormers on principal facades are strongly discouraged except where they exist in the immediate neighborhood. The overall width of the dormers should be no wider than one-half the overall roof width.
- **Skylights**

Skylights with a low profile are permitted on all secondary facades but not on principal facades. It is recommended that the placement of skylights relate to the overall fenestration of the building by relating vertically to other openings in the wall. The use of dormers and skylights on the same roof plane (i.e., next to each other) is not recommended.

ROOFS - FORM

Most historic buildings in Solebury Township feature sloping roofs. To be compatible, additions and new buildings should also have sloping roofs. Historically, the roof form of an addition placed alongside an existing structure facing a street followed the form of the principal building. Continuing the historical precedent, additions to gable roof structures that face a street should also have a gable roof. Additions on a secondary facade can have a different roof form, such as a shed roof. In the design of new buildings, the use of one of the historic roof forms found in the district is recommended. Contemporary Mansard roof forms and materials are not appropriate to the Historic District.

ROOFS - MATERIALS

- **Additions**

The roofing material on an addition should match the original structure or be visually similar to the existing roofing. For example, an addition to a building with a slate roof should have a roof that is slate, a synthetic slate, or a material that appears similar in color and dimension to slate. The roofing material of a one-story shed addition to a two-story slate-roof house, however, could be another historically appropriate material such as painted metal, especially if the slope of the proposed shed roof is less than that of the main roof.
- **New Construction**

The use of traditional roofing materials such as slate and standing-seam metal is encouraged on new buildings. Recycled rubber polymer shingles or fiber-reinforced cement shingles that closely resemble slate and modern historic-looking standing-seam roofing with interlocking pans and low-profile standing seams are available. (Note: Many pre-formed metal roofing systems, however, have clumsy seam and termination details that are not appropriate in the Historic District.) If asphalt shingles are to be used, heavy-weight dimensional shingles in a color similar to those of historic materials are strongly recommended.

SCALE AND MASSING OF LARGE BUILDINGS

Large buildings should be designed as a series of masses or building elements compatible with the immediate streetscape. The massing or volumetric shape of a building greatly affects the scale of a building and underlies all other architectural features. Where a large building in the Historic District is unavoidable, the mass of the proposed structure can be broken down into traditional building blocks that relate to the scale of the streetscape, thereby blending into its context (Figure 184).



Figure 184 A proposed large building may be made compatible with its context by breaking down its perceived massing into traditional “building blocks.”

SHUTTERS AND BLINDS

Shutters and blinds are generally discouraged on additions and on new buildings. If shutter or blinds are proposed, they should follow the historical precedent of original shutters and blinds. New shutters and blinds should be properly sized to fit the opening, and should appear operable by being mounted on proper shutter hardware. Hollow plastic or metal shutters and blinds are not appropriate. New shutters and blinds should be fitted with traditional shutter hardware and should not be surface-mounted directly onto an exterior wall surface.

WALL MATERIALS - ADDITIONS

An addition should either replicate the existing exterior wall material in type, color, and texture or be constructed of a historic exterior wall material found in the district. If wood siding is proposed for the addition, the width, type, and detail of the new siding should complement the proportions and scale of the existing building. Cement/fiber synthetic clapboard siding that is manufactured with a smooth surface and field painted is also acceptable on primary facades. The wall materials of an addition should be compatible with the wall materials of the existing building. Vinyl and aluminum siding are not appropriate in the historic districts.

WALL MATERIALS – NEW BUILDINGS

The use of historic exterior wall materials such as stone or wood siding and their related details are required for new construction. Cement/fiber synthetic clapboard siding that is manufactured with a smooth surface and field painted may also be acceptable on primary facades. The use of vinyl or aluminum siding is not recommended. Likewise, vinyl and aluminum facings and fabricated plastic or composite wood/plastic building components are not appropriate on primary facades.

WIDTH AND RHYTHM

Historically, buildings along the road or village street were spaced to create a rhythm of solids and voids. Additions should not fill in the spaces between buildings, and new buildings should not disrupt the existing rhythm of the street.

WINDOWS AND DOORS - ADDITIONS

It is recommended that the material of windows and doors in additions match the material of the window and doors in the historic structure. The proportion of windows and doors in an addition should be similar to the proportion of original openings in the existing building. Replicating the sash type and pane configuration of the historic windows is encouraged. If the sash type and configuration is not replicated, a sash type and configuration that is compatible in type to the historic sash pattern is recommended. Sliding glass doors are not appropriate on the principal facade of an addition.

WINDOWS AND DOORS – NEW BUILDINGS

The placement and proportion of windows and doors should relate to the placement and proportion of openings on the historic buildings of the district. It is recommended that vertically proportioned windows placed in a three, four, or five-bay configuration be installed on principal facades. The percentage of window openings to total wall surface on a principal facade should not exceed 33 percent (one-third) of the total wall area (Figure 185). The use of double-hung sash windows is encouraged. On secondary structures, the size and type of windows and doors should relate to the type of structure proposed.

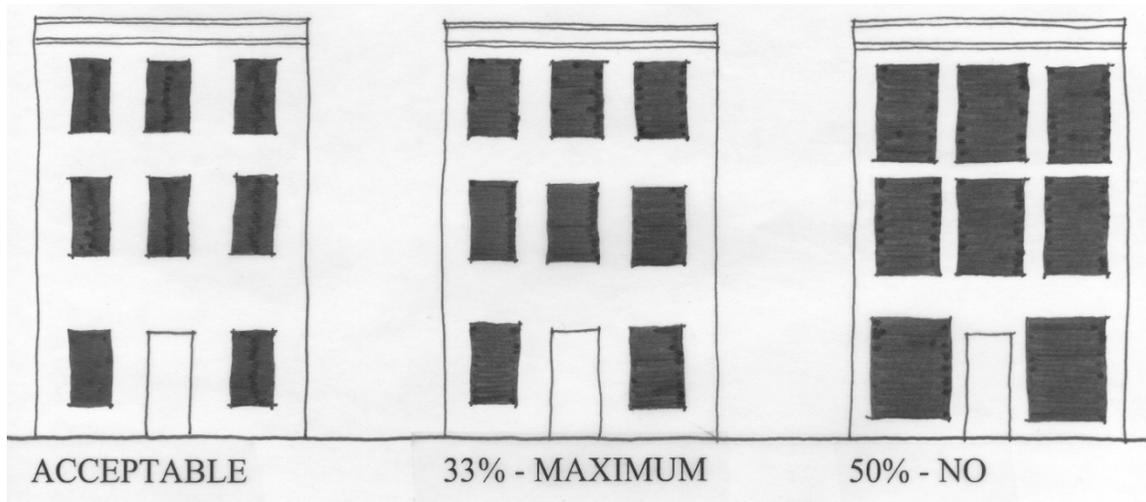


Figure 185 The amount of window area in a traditional masonry wall is less than one-third of the total facade area. When this ratio of window area is increased beyond one-third by a proposed building, the proposed wall loses its compatibility with its historic neighbors.

GUIDELINES FOR PROTECTING HISTORIC VILLAGE STREETSCAPES

A primary purpose of the Historic District Ordinance and these Design Guidelines is to preserve the historical character of streetscapes within village historic districts. Streetscapes are the public spaces formed by buildings along roads and streets in an urban or village setting. These outdoor, linear rooms have buildings as walls, street and sidewalk paving as flooring, the sky as a ceiling, lighting provided by the sun by day and street lights by night, and furnishings consisting of vegetation, planters, building stoops and steps, benches, trash receptors, automobile signage, and other accessory items. Streetscapes are dynamic and change with the weather, time of day, and season. The public perception of a neighborhood or historic district is formed by the quality of the streetscapes. The quality of a streetscape is formed by both the character of the buildings that define the street space and the character of the outdoor ground surfaces, vegetation, walls, fences, and furnishings that enrich the space. In the Carversville and Phillips Mill Historic Districts, the historic streetscapes are rich with building material textures, interesting paving, vegetation, and streets that relate to the pedestrian more than the automobile (Figure 186).



Figure 186 The intersection of Aquetong Road and Carversville Road, looking northwest toward the Carversville Inn. This space, with the General Store on the right, is the heart of the village.

DRIVEWAYS AND OFF-STREET PARKING

Off-street parking areas should be carefully planned to protect the historical character of the district. The removal of mature landscaping and trees to provide parking areas is discouraged. Where visible from the road, cobblestone pavers and grass-block pavers and crushed stone are encouraged (Figures 187 and 188).



Figure 187 Parking area at the Kirk Homestead, Aquetong Road, Carversville Historic District. Grassblock pavers are successfully employed where the amount of automobile parking is not heavy.



Figure 188 New driveway and parking area at the recently expanded dwelling on Aquetong Road, Carversville Historic District. Crushed stone paving is a compatible and environmentally friendly paving surface.

FENCES

Wood picket, vertical board, stockade, and ornamental iron fences are found in the Historic Districts (Figures 189 and 190). Chain-link fences, plastic fences, and deer fencing are not appropriate in the Historic District except on rear areas of lots. Fences along street fronts should be designed to allow views of the yard and building. Fences for rear and side yards may be opaque. Gates should be designed to swing into the private walkway or driveway, not onto the public sidewalk. Fences alongside and rear lot lines may be constructed of rough board, plank, or welded wire fabric, but fences near dwellings and other building should be more refined or ornamental.



Figure 189 Traditional picket fencing along Carversville Road. Painted wood-picket fencing is an important visual element in the character of Carversville roads.



Figure 190 Cast iron fencing at dwelling at intersection of Carversville Road and Wismer Road, Carversville Historic District.

FURNITURE - OUTDOOR

Street furniture such as benches, trash receptors, and tables should be simple in character, constructed of wood and/or painted metal, and be compatible with the style and scale of adjacent buildings and outdoor spaces.

PATIOS

Patios should be located on secondary sides of buildings.

PLANT MATERIALS

The flow of water through the cultural landscape is strongly felt in both the Carversville and the Phillips Mill Historic Districts. In both villages, the sound of rushing water is present, and at Phillips Mill the Pennsylvania Canal provides insight into a remote village's connection to the outside world. In both historic districts, numerous ornamental gardens are present. HARB does not review landscape plans, but new plant materials should not obscure the view of principal historic facades. Climbing vines that cause deterioration of exterior wall materials should be avoided. Vegetative screening of utility equipment, dumpsters, and other undesired views is encouraged.

RETAINING WALLS

Because of the steep terrain in Carversville, there are many examples of historic stone retaining walls and steps (Figure 191). Retaining walls visible from a public way should be built with traditional stone masonry materials. Railroad ties, pressure-treated lumber, and decorative concrete units are not appropriate retaining wall materials.



Figure 191 One of the more formal retaining walls and entrance steps in the Carversville Historic District is found at the Samuel and Hannah Firman House on Carversville Road. Note the stone walls, stone slab steps, and stone walk.

SIDEWALKS

Except for paved paths within properties, there are no paved walks in the Phillips Mill Historic District, and only intermittent sidewalks in Carversville. Traditionally, pedestrians walked on the quiet roads and streets in Solebury villages, sharing the cart way with horse-drawn wagons and carriages, and later automobiles. Surviving walks are paved with flagstone, and along Aquetong Road there are fragments of bluestone curbs (Figure 192). Where surviving, remnants of historic paving and curbing should be preserved. New walks should be constructed from flagstone pavers. Tinted concrete pavers and patterned concrete are not recommended.



Figure 192 Paving along Aquetong Road, Carversville Historic District.
Note the surviving bluestone curbing, dry-laid retaining wall, flagstone sidewalk and walk to the porch, and hitching post.

APPENDICES

Books and Other Publications

Categories are in alphabetical order by topic:

- Additions, New Construction, Demolition
- Commercial Buildings and Signs
- Exterior Color
- General Rehabilitation
- Maintenance
- Masonry
- Outbuildings and Sitework
- Porches
- Roofs
- Utilities and Accessibility
- Windows and Doors
- Wood

ADDITIONS, NEW CONSTRUCTION, DEMOLITION

Old-House Journal. "Making Sense of Sensitive Additions: Ways to Get a Handle on Enlarging Old Houses." May/June, 1995; "The Old Way of Seeing Additions." May/June, 1995.

Preservation Brief #14: *New Exterior Additions to Historic Buildings*.

COMMERCIAL BUILDINGS AND SIGNS

Marinelli, Janet. "Architectural Glass and the Evolution of the Storefront." *Old-House Journal*. July/Aug., 1988. p. 34-43.

Marinelli, Janet and Gordon Bock. "Streetscapes." *Old-House Journal*. July/Aug., 1988. p. 46-55.

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Preservation Brief #12: *Preservation of Historic Pigmented Structural Glass*

Preservation Brief #25: *Preservation of Historic Signs*

Preservation Brief #27: *The Maintenance and Repair of Architectural Cast Iron*

Where to Go for Help

Listed on this page and the following pages are a variety of resources - both organizations and publications - that can be consulted for additional help and information in maintaining and rehabilitating historic buildings. Sources on general maintenance and rehabilitation are provided, as are sources for each of the broad topics covered in this manual.



Figure 193 Solebury Township Building

EXTERIOR COLOR

Moss, Roger A. *Century of Color: Exterior Decoration for American Buildings, 1820-1920*. American Life Foundation, 1980.

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Old-House Journal. "The Case Against Removing Paint from Brick Masonry," Feb. 1975; "Checklist for Painting," May, 1986; "Exterior Painting," April, 1981; "Prior to Paint," July/Aug., 1994; "Restoring a Frame House Exterior," Sep., 1974; "Stripping Paint from Exterior Wood," Dec., 1985; "Stripping Exterior Masonry," Jan./Feb., 1985.

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Preservation Brief #10: *Exterior Paint Problems on Historic Woodwork*.

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Schwin, Lawrence III. *Old House Colors: An Expert's Guide to Painting Your Old (Or Not So Old) House*. New York; Sterling Publishing Co., 1990.

Weeks, Kay D. and David W. Look. "Paint on Exterior Historic Woodwork: Identification & Treatment of Surface Condition Problems." *Technology and Conservation*. Summer, 1982. p. 34-46.

GENERAL REHABILITATION

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Hotton, Peter. *So You Want to Fix Up an Old House*. Boston: Little, Brown, 1979.

Jackson, Albert and David Day. *The Complete Home Restoration Manual*. New York: Simon & Schuster, 1992.

Organizations

Association for Preservation
Technology
4513 Lincoln Ave. Suite 213
Lisle, IL 60532-1290
630-968-6400
888-723-4242
<https://www.apti.org/>

National Park Service
Heritage Preservation Services
National Center for Cultural
Resources
1201 Eye St. NW, 2255
Washington, D.C. 20005
202-513-7270
1-800-944-6847
<https://www.nps.gov/index.htm>

National Trust for Historic
Preservation
Mid-Atlantic Regional Office
1617 JFK Blvd., Suite 1520
Philadelphia, PA 19103
215-568-8162
<https://savingplaces.org/>

Dictionaries

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

Harris, Cyril M. (ed.). *A Dictionary of Architecture and Construction*. McGraw-Hill, 1997.

Philbin, Tom. *The Illustrated Dictionary of Building Terms*. New York: McGraw-Hill, 1997.

Phillips, Steven J. *Old House Dictionary: An Illustrated Guide to American Domestic Architecture 1600-1940*. Washington, DC: The Preservation Press, 1992.

Johnson, Allen F. *How To Care for Your Old House: An Owner's Manual*. New Haven: Connecticut Trust for Historic Preservation, 1987.

Kass, Stephen L., Judith M. LaBelle, and David A. Hansell, *Rehabilitating Older and Historic Buildings: Law, Taxation Strategies*. Second Edition. New York: John Wiley & Sons., Inc., 1993.

Kitchen, Judith L. *Caring for Your Old House: A Guide for Owners and Residents*. Washington, DC: The Preservation Press, 1991.

McGowan, John and Roger DuBern. *The Book of Home Restoration*. New York: Gallery Books, 1985.

National Park Service. *Maintaining Historic Buildings* (A NPS Reading List). Washington, DC: National Park Service, 19990.

National Park Service. *Respectful Rehabilitation: Answers to Your Questions About Old Buildings*. Washington, DC: Preservation Press, 1982.

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Preservation Brief #17: *Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving their Character*.

Preservation Brief #37: *Appropriate Methods for Reducing Lead Paint Hazards in Historic Housing*.

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Architectural Style Guides

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Rifking, Carole. *A Field Guide to American Architecture*. New York: New American Library, 1980.

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Periodicals

APT Bulletin.
Association for Preservation
Technology
PO Box 8178
Fredericksburg, VA 22404
713-373-1621/1622.
www.apti.org

Historic Preservation and Preservation News.
Published by the Preservation Press.
National Trust for Historic
Preservation
1785 Massachusetts Avenue NW
Washington, DC 20036
202-673-4070
savingplaces.org/

Old-House Journal.
435 Ninth Street
Brooklyn, NY 11215
718-788-1700,
www.oldhouseweb.com/

Preservation Forum.
National Trust for Historic
Preservation
1785 Massachusetts Avenue NW
Washington, DC 20036
202-673-4070
savingplaces.org/

Traditional Building: The Professional Source for Historical Products
69A Seventh Avenue
Brooklyn, NY 11217
www.traditionalbuilding.com/

MASONRY

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Preservation Brief #2: *Repointing Mortar Joints in Historic Brick Buildings*.

Preservation Brief #6: *Dangers of Abrasive Cleaning to Historic Buildings*.

Preservation Brief #7: *Preservation of Historic Glazed Architectural Terra-Cotta*.

Preservation Brief #15: *Preservation of Historic concrete: Problems and General Approaches*.

Preservation Brief #22: *The Preservation and Repair of Historic Stucco*.

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Smith, Baird W. *Moisture Problems in Historic Masonry Walls: Diagnosing and Treatment*, 1984.

Preservation Briefs

Preservation Briefs are produced by the National Park Service and may be viewed by visiting:

<https://www.nps.gov/tps/how-to-preserve/briefs.htm>

1. The Cleaning and Waterproof Coating of Masonry Buildings
2. Repointing Mortar Joints in Historic Brick Buildings
3. Conserving Energy in Historic Buildings
4. Roofing for Historic Buildings
5. The Preservation of Historic Adobe Buildings
6. Dangers of Abrasive Cleaning to Historic Buildings
7. The Preservation of Historic Glazed Architectural Terra Cotta
8. Aluminum or Vinyl Siding on Historic Buildings: The Appropriateness of Substitute Materials for Resurfacing Historic Wood Frame Buildings
9. The Repair of Historic Wooden Windows
10. Exterior Paint Problems on Historic Woodwork
11. Rehabilitating Historic Storefronts
12. The Preservation of Pigmented Structural Glass (Vitrolite and Carrara Glass)

Weiss, Norman R. "Cleaning of Building Exteriors: Problems and Procedures of Dirt Removal." *Technology & Conservation*. Fall, 1976. p. 8-11.

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Preservation Brief #20: *Preservation of Historic Barns*

Preservation Brief #36: *Preserving Cultural Landscapes: Planning Treatments and Management of Historic Landscapes*

Prowell, Charles. "One Barn's Return: Three Fixes for Bulging Outbuildings." *Old-House Journal*. July/Aug., 1995. p. 44-47.

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13. The Repair and Thermal Upgrading of Historic Steel Windows
14. New Exterior Additions to Historic Buildings
15. Preservation of Historic Concrete: Problems and General Approaches
16. The Use of Substitute Materials on Historic Building Exteriors
17. Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving their Character
18. Rehabilitating Interiors in Historic Buildings
19. Repair and Replacement of Historic Wooden Shingle Roofs
20. The Preservation of Historic Barns
21. Repairing Historic Flat Plaster: Walls and Ceilings
22. The Preservation and Repair of Historic Stucco
23. Preserving Historic Ornamental Plaster
24. Heating, Ventilating and Cooling Historic Buildings: Problems and Recommended Approaches
25. The Preservation of Historic Signs
26. The Preservation and Repair of Historic Log Buildings

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28. Painting Historic Interiors

29. The Repair, Replacement and Maintenance of Historic Slate Roofs

30. The Preservation and Repair of Historic Clay Tile Roofs

31. Mothballing Historic Buildings

32. Making Historic Properties Accessible

33. Preservation and Repair of Historic Stained and Leaded Glass

34. Applied Decoration for Historic Interiors: Preserving Composition Ornament

35. Understanding Old Buildings: The Process of Architectural Investigation

36. Preserving Cultural Landscapes: Planning Treatments and Management of Historic Landscapes

37. Appropriate Methods for Reducing Lead-paint Hazards in Historic Housing

38. Removing Graffiti from Historic Masonry

39. Holding the Line: Controlling Unwanted Moisture in Historic Build

40. Preserving Historic Ceramic Tile Floors

Preservation Brief #3: *Conserving Energy in Historic Buildings*.

Preservation Brief #9: *The Repair of Historic Wooden Windows*.

Preservation Brief #13: *The Repair and Thermal Upgrading of Historic Steel Windows*.

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Design Guidelines of Other Historic Communities

The design guides and manuals from the following historic communities were valuable in the preparation of this document.

- Aiken, South Carolina
- Allentown, Pennsylvania
- Annapolis, Maryland
- Beaufort, South Carolina
- Bellefonte, Pennsylvania
- Brookline, Massachusetts
- Cheraw, South Carolina
- Doylestown, Pennsylvania
- Galeton, Pennsylvania
- Gettysburg, Pennsylvania
- Harrisburg, Pennsylvania
- Hingham, Massachusetts
- Holidaysburg, Pennsylvania
- Holyoke, Massachusetts
- Lowell, Massachusetts
- Lower Merion Twp., Pennsylvania
- New Bedford, Massachusetts
- Oakland, California
- Penn Yan, New York
- Pottstown, Pennsylvania
- Providence, Rhode Island
- Rochester, New York
- Rock Hill, South Carolina

When to Consider Using Artificial Materials on a Historic Building

Because the use of substitute materials can damage or destroy the character of a historic structure, all preservation options should be explored thoroughly before substitute materials are used. In general, four circumstances warrant the consideration of substitute materials, and three basic criteria must be met before substitute materials are considered. These circumstances and criteria should be closely examined for each potential siding project.

CIRCUMSTANCES THAT WARRANT THE CONSIDERATION OF SUBSTITUTE MATERIALS

1. The unavailability of historic materials.
2. The unavailability of skilled craftspeople.
3. Inherent flaws in the original materials.
4. Code-required changes.

CRITERIA FOR CONSIDERING SUBSTITUTE MATERIALS

1. Substitute materials must be compatible with the historic materials in appearance.
2. The physical properties of substitute materials must be similar to those of the historic materials, or the substitute materials must be installed in a manner that tolerates differences in physical properties.
3. Substitute materials must meet basic performance expectations over time. This begins with the selection of qualified, experienced fabricators and installers who are willing to preserve historic features.

Guidelines for Artificial Materials

When deteriorated, damaged, or lost features of a historic building need repair or replacement, it is almost always best to use historic materials. The inappropriate choice or improper installation of substitute materials can cause a radical change in a building's appearance and can cause extensive physical damage over time. Consequently, the use of substitute materials should be limited, since their use may jeopardize the integrity of the historic resource. Every means of repairing deteriorating historic materials should be examined before turning to substitute materials.

In some limited circumstances substitute materials that imitate historic materials may be used if the appearance and properties of the historic materials can be matched closely and if no damage to the remaining historic fabric will result. However, substitute materials should be used only after all other options for repair and replacement in kind have been ruled out.

The information on the following page outlines the special circumstances under which artificial materials may be considered, and the guidelines for the installation of artificial materials under those circumstances.

This is based on information found in Preservation Brief #16 which may be consulted for additional information. (See <https://www.nps.gov/tps/how-to-preserve/briefs.htm>)

Typical Paint Problems and Possible Causes

CLASS 1: MINOR CONDITIONS THAT GENERALLY DO NOT REQUIRE PAINT REMOVAL

Symptom	Possible Cause	What to Do
Dirt	Environmental grime and organic matter accumulate over time, and are not washed away by rain and sunlight	Be careful not to use too much water. Excess water increases drying time required and may lead to deterioration
Mildew	Caused by fungi that live on nutrients in the paint or on dirt adhering to the wall. It thrives in areas where excess moisture is present. If you are uncertain whether you have mildew or dirt, try this test: a drop of bleach will turn mildew white and will have little effect on dirt	Eliminate source of moisture: Prune and trim vegetation, check drainage at base of building and at sills. Remove mildew with a mixture of one-gallon warm water, one cup non-ammonia detergent, one-quart household bleach. Apply. Wait five minutes, then rinse with clean water. Allow wood to dry before repainting. Repaint with "mildew-resistant" products.
Excessive Chalking	A powdering of the paint surface that allows the paint to be rubbed off like powder. It is caused by the natural aging of the paint. As the paint ages, the resin in the paint film gradually deteriorates. It can also be caused by inadequate priming or poor-quality paint. Moderate chalking is not a problem because it assists in removing dirt from the surface.	The chalk should be cleaned off the surface with a solution of one-half cup household detergent and one-gallon water with a medium soft bristle brush. The surface should be rinsed with clear water, allowed to dry, and repainted before chalking recurs.

Common Paint Problems

The table on these pages provides extensive information on a variety of common paint problems. Possible causes of the problems and suggestions on how to solve them are given. If the paint on your building is deteriorated and you are unable to determine the cause of the problem, consult a local paint company for guidance.

Note: A single building may have a variety of problems; consequently, different problems will require different treatments.

CLASS 2: CONDITIONS THAT INCLUDE FAILURE OF THE TOP LAYER(S) OF PAINT & MAY REQUIRE LIMITED PAINT REMOVAL

Symptom	Possible Cause	What to Do
Crazing	Jagged, interconnected breaks or cracks occur when paint that is several layers thick becomes hard and brittle with age, losing its ability to expand and contract in response to the weather.	Sand the surface by hand or with a mechanical sander. Then repaint.
Intercoat Peeling	May be caused by improper surface preparation, including failure to remove salt from the surface or by incompatibility of paint types.	Improper surface preparation: Scrape the area, wash it thoroughly, wipe dry, sand and repaint. Incompatible paints: Scrape and sand the top coat, apply an appropriate primer, and repaint with an appropriate paint.
Solvent Blistering	Caused by ambient heat. If solvent-rich paint is applied in direct sunlight, the top surface can dry too quickly which traps solvents. Solvents will vaporize through the paint film, leaving surface blisters behind. Verify solvent blistering by cutting open a blister and finding a painted surface beneath.	Scrape the affected area, sand to the next sound layer, then repaint. Do not paint in direct sunlight.
Moisture Blistering and Wrinkling	(1) Occurs when the top layer of paint dries before the undercoat, then moves as the undercoat dries. This condition can be caused by applying paint too thickly, or by applying paint at a temperature not recommended by the manufacturer, or by insufficient brushing out. (2) May also be caused by outside moisture that has infiltrated under the paint layer. Rising damp (moisture penetrating up the wall from the basement) or excessive interior humidity may move through the siding and damage the paint coating.	(1) Remove wrinkled layer by scraping and sanding to an even surface, then repaint. Allow drying time between coats and brush out each coat. Don't apply paint too thickly or paint in high temperatures. (2) Seek professional assistance to repair and seal basement walls, or to ventilate the space between the interior and exterior walls.

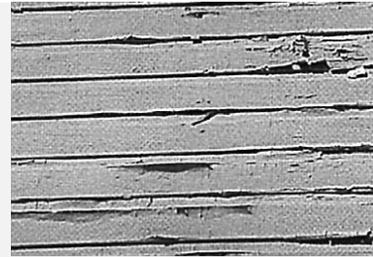


Figure 194 Peeling Paint



Figure 195 Peeling Paint

CLASS 3: CONDITIONS THAT INCLUDE SUBSTANTIAL FAILURE OR MULTIPLE-LAYER FAILURE AND GENERALLY REQUIRE TOTAL PAINT REMOVAL

Symptom	Possible Cause	What to Do
Peeling	Peeling to bare wood is typically caused by excess moisture collecting behind the paint film. Peeling often begins as blisters and/or cracks, and occurs as the wood swells due to the moisture. Peeling combined with brown stains near the roof may indicate ice damming. Peeling around porches might mean that gutters are not working properly.	Locate and repair the source of moisture (Check leaky gutters, downspouts, defective roof shingles, cracks or holes in siding and trim, deteriorated caulking; Relocate vegetation too close to painted wood; Ventilate high-humidity areas with vents and exhaust fans) After repairs, allow wood to dry completely, scrape, sand, prime and repaint
Cracking and Alligatoring	<p>(1) Advanced stages of crazing caused by poor adhesion of the paint to the underlying surface. Once intercoat paint failure has occurred, moisture penetrates the surface cracks, the wood swells, and the cracks become deeper. Eventually the cracks extend to an overall pattern of horizontal and vertical breaks, resembling reptile skin.</p> <p>(2) Also caused by excessive layers of paint. Thick paint is too brittle to recover from an additional coat as it dries and is less able to tolerate thermal stresses. Thick paint fails at the wood adjacent layer.</p>	<p>(1) If the condition has not progressed to bare wood, scrape and sand to the next sound layer. If the condition has progressed to bare wood and the paint has begun to flake, the entire paint surface must be removed. Scrape, sand, prime, and repaint.</p> <p>(2) All around failure, leaving wood bare, may mean that your entire house needs better ventilation.</p>

Keep a Record of the Paint

When the majority of paint will be removed from a building, it is suggested that a small area of the paint will be left intact and not painted over. Identify the area in some way. This will enable future investigators to have a record of the building's paint history.

Air Infiltration - The flow of air into a building from the outside through cracks or holes in the exterior surfaces of the building

Alligatoring - The splitting of a film of paint in a pattern resembling an alligator's skin

Alteration - Any physical change to an existing structure

Apron - The facing panel, sometimes ornamented, below the floor of a porch, or the panel below a window will (See Figure 210)

Architrave - The lowest group of moldings on an entablature

Artificial - See "Synthetic"

Awning - A roof-like covering placed over a door or window to provide shelter from the elements, historically constructed of fabric but also made of metal and plastic in modern times.

Baluster - A small, column-like element, simple or decorative, that supports a hand rail in a balustrade

Balustrade - A railing on a stair, porch, or other structure, composed of upper and lower rails and a series of balusters in between

Bargeboard - A decorative board, typically one of a pair, placed at the edge of the eaves of a gable

Bay Window - A window unit that projects outward from the wall of a building and usually has a foundation of its own

Blocking In - The process by which one of a variety of materials is added to a window or door opening to decrease the size of the opening, or to close the opening completely

Board and Batten - A type of wooden siding composed of vertical boards that are covered at the joints with narrow boards called battens

Bond - The pattern in which bricks or stones are arranged in the formation of a wall; also called bonding pattern

Bracket - A general term for an architectural feature, typically treated with scrolls or ornament, projecting from a wall and intended to support a weight, such as a cornice.

Bulkhead - The panel at the base of the display windows of a storefront

GLOSSARY

Listed in this section are definitions of the technical terms used throughout this manual. For more complete listings of technical terms, see the dictionaries listed in the Appendix section called [Where to Go for Help](#) on page 159.

Casement - A window sash that opens by swinging in or out to one side

Caulking - A flexible material used to seal cracks and fill joints between materials, intended to prevent leakage and/or to provide waterproofing

Certificate of Appropriateness - The approval statement, recommended by the Historic Architectural Review Board and approved by the Board of Supervisors, that certifies the appropriateness of a particular request for the construction, alteration, reconstruction, repair, restoration, demolition, or razing of all or part of any building within a historic district, following a determination of suitability according to applicable criteria, and that authorizes the issuance of a building permit for such request

Chalking - A powdering of the surface of paint caused by natural aging

Character - The combination of distinguishing attributes belonging to a building, structure, or other resource

Character-Defining Feature - Any distinguishable architectural element or characteristic that distinguishes a building or other resource, assists in classifying it as a particular type, style, form, etc., and distinguishes it from other resources

Chimney - A structure that encloses one or more flues for the conveyance of smoke to the outside of a building, especially the part of the structure that rises above the roof, but also the part that may rise along the side wall of a building

Clapboard - An exterior horizontal wood siding applied so that the thicker edge of each board overlaps the thinner edge of the board below

Classical - Relating to the style of ancient Greek or Roman art or architecture, or of derivatives of those styles

Column - A vertical architectural element intended to support a load and usually composed of a base, shaft, and capital, often reflecting classical detailing

Compatible - Describing an alteration that maintains or restores the historic and significant features and appearance of a building, and does not detract from surrounding resources, thereby maintaining a sense of visual harmony in the building and between the building and neighboring buildings

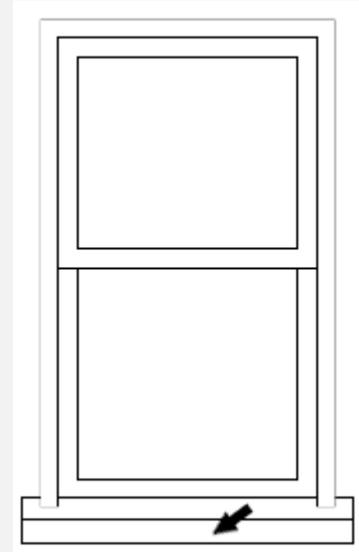


Figure 196 Window Apron

Compatible Substitute - A new material used to replace an old material, the new material being similar to the old in all aspects of appearance and agreeable to the existing materials in physical and chemical properties

Conical - Shaped like a cone, usually referring to a roof

Corner Board - A narrow, vertical board installed at the corner of a wood frame structure, against which the horizontal siding abuts (See Figure 211)

Cornice - Projecting moldings forming the top band of an entablature, or a similar horizontal ornamental molding at the top of a prominent architectural element, such as a wall, window, or door

Crazing - A condition of fine, jagged interconnected breaks or cracks in the top layer of paint, caused when thick paint becomes excessively hard and can't respond to changing weather conditions

Cresting - A decorative series of perforated, arrow-like elements at the top of a structure, especially along the ridge of a roof

Cross Gable - A type of roof composed of two gables that intersect at right angles (See Figure 212)

Crown - A decorative molding at the top of a window, door, or other element

Cupola - A small structure projecting from a roof, originally intended to provide light, ventilation, or view, but may be strictly decorative

Cyclical Maintenance - The regular upkeep of all elements of a building or property

Delamination - The separation of layers of a material

Demolition - The intentional destruction of all or part of a building or structure

Demolition by Neglect - The destruction of a building or structure caused by the failure to perform maintenance over a period of time

Dentil - One of a series of small, toothlike projections that alternate with blank spaces, used for decorative effect in cornices and other moldings

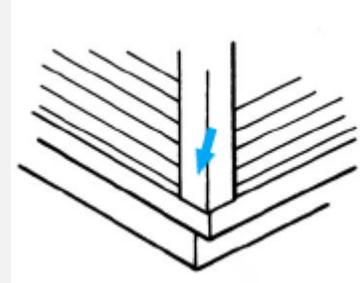


Figure 197 Corner Board

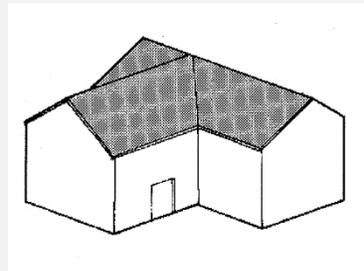


Figure 198 Cross Gable

Deterioration - The loss of the original sound condition of a material, structure, etc., typically due to weathering, the lack of maintenance, and/or human activity

Dormer - A window that projects from a sloping roof

Downspout - A vertical pipe-like element that conducts water away from a roof, typically connected to a gutter

Dusting - The condition that occurs in masonry when the outer layer of the masonry has fallen off, and the softer, inner core is being rubbed away

Eaves - The underside of the portion of a roof that extends beyond the face of the wall (See Figure 213)

Efflorescence - A spotty white haze appearing in a horizontal pattern in brick, created by salts that are deposited after water that has been carried into the wall evaporates

Elevation - One of the walls of a building

Energy Efficient - Describing a building or an element of a building that provides resistance to the flow of heat, or that requires little energy to operate

Entablature - The long horizontal structure above the capital of a column, consisting of a cornice, a frieze, and an architrave; or a similar grouping used in other locations, as above a door or window

Façade - The front wall of a building, or any decorated wall of a building

Facing - A non-structural materials that is applied to a surface of a building for protection or ornament

Fanlight - An arched window above a door or other Window (See Figure 214)

Feature - A single, distinguished part of a greater whole, as a single architectural element of a building

Finial - A slender, vertical ornamental element usually positioned at the top of a roof or a gable

Finish - The texture, color, smoothness, reflectivity, and other visual properties of a surface

Fish Scale Shingles - Shingles with rounded ends

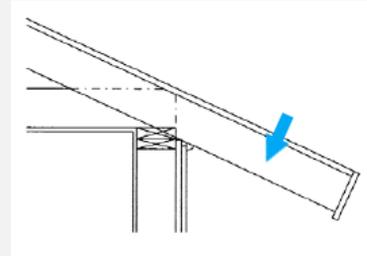


Figure 199 Eaves

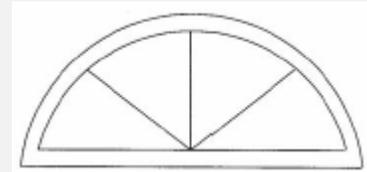


Figure 200 Fanlight

Flashing - Sheet metal placed over the joints in a roof to prevent water leakage

Form - The shape of a building or object, which contributes to character and appearance

Foundation - The masonry base of a building that rests directly on the earth and supports the structure above

Frame - The woodwork surrounding a door or window in a wall, to which the door or window is attached

Frieze - The flat, middle portion of the entablature, or any similar decorative, horizontal element on a building

Front Gable - A building with a gable roof and a main entrance in the gable end

Gable - The triangular portion of the end of a building with a double-sloping roof, including the portion from the level of the eaves to the ridge

Gable End - In a building with a gable roof, an end of the building that includes the triangular gable

Gable Roof - A simple pitched roof with sides inclined at the same angle, meeting at a peak in the center of the structure

Galvanized - Describing a material that is protected from rust with a coating of zinc

Gambrel - A roof composed of a shallow pitched slope above a more steeply pitched slope

Glazing Pattern - The arrangement of panes in a window or door

Grade - The height of the surface of the ground

Gutter - A channel attached to the eaves of a building to carry rainwater away from the roof, typically attached to a downspout (See Figure 215)

Head - The top horizontal member of a window or door frame

Hipped Roof - A roof that slopes inward from all exterior walls

Historic Preservation - A broad range of activities intended to stabilize and conserve the built environment



Figure 201 A gutter and downspout

Historic Rehabilitation - The process of returning a historic building and/or property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the building and/or property that are significant to its historic, architectural, and cultural values

Ice Dam - A buildup of snow and ice at the eaves of a sloping roof

Insulation - A material used to reduce the transmission of heat or sound

Lattice - Open screening, also called latticework, formed by the overlapping of thin strips of wood

Lintel - A horizontal structural element spanning a window or door opening

Louver - A series of angled slats in a framework, incorporating spaces to admit air, often used to fill window openings

Maintenance - The routine upkeep of a building or property, generally performed to combat the effects of weathering and age

Mansard - A roof composed of two pitches, the lower pitch steeper than the upper pitch, which may be nearly flat

Masonry - Any of a variety of materials, including brick, stone, mortar, terra cotta, stucco, and concrete, used for building construction

Massing - The overall composition, including the size, expanse, shape, and bulk, of the major volumes of a building, that contributes to the building's appearance, especially when the building has major and minor elements

Molding - A long decorative trim of any of a variety of profiles, used to ornament buildings and building elements

Mortar - A composition of sand, water, lime, and/or Portland cement, and possibly other materials, used to bond masonry units together

Mullion - The vertical member that separates windows or doors set in a series in a single opening

Multipane - Describing a window whose sash is composed of more than one pane of glass (See Figures 216-217)

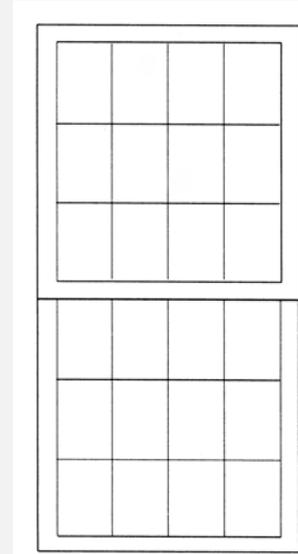


Figure 202 Multipane Window

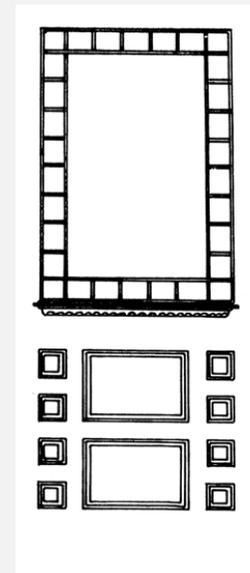


Figure 203 Door with multipane window

Muntin - The small element that separates the individual panes of glass in a multipane sash

Newel - The post, often ornamental, that supports the handrail at the top and bottom of a stairway

Ordinance - A municipally adopted law or regulation outlining specific rules regarding a variety of issues, but often pertaining to the use of land, property, buildings, etc.

Oriel - A bay window above the first-floor level

Orientation - The placement of elements on a building or the placement of a building on a site, taking into consideration size, distance, setback, alignment of features, the location of the street, and the situation of other nearby buildings

Outbuilding - A structure separate from and secondary to the main building on a property, including but not limited to garages, carriage houses, summer kitchens, ice houses, sheds, and barns

Panel - A flat surface surrounded by moldings or recessed from the adjacent surface and sometimes ornamented (See Figure 218)

Parapet - A wall that projects above a roof

Pediment - The gable end of a roof or portico, often triangular or segmental in shape, and located above the cornice in classical architecture; a similar feature above doors and windows

Physical Evidence - Remaining historic fabric and/or features of a building that should be used as the basis for designing or recreating new building elements

Photographic Evidence - Historic photographs or illustrations that provide information on the historic appearance of a building and that can be used as the basis for designing or recreating new elements appropriate to the historic character of the building

Picturesque - Describing architecture that is characterized by irregularity, variety, and roughness

Pilaster - A flat architectural element resembling a column attached to a wall

Pitch - The slope of a roof or other element

Pointing - The process of using mortar to bond masonry units together to form a wall

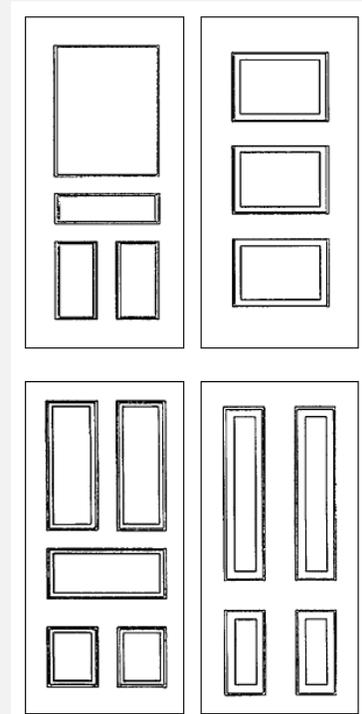


Figure 204 A variety of doors with panels

Porch - An exterior structure attached to a building, with its own roof and a floor, and open on all sides; it may be large or small, plain or decorative

Portico - A covered porch or walkway supported by columns, typically located at the entrance to building

Poultice - Any of a variety of compositions applied to masonry surfaces to assist in the removal of stains

Preservation - The stabilization of a building or a material to protect it from deterioration

Primary Elevation / Primary Façade - An exterior wall of a building that receives special architectural treatment or ornament, often the wall that contains the entrance or any wall facing a major street

Primer - A specially formulated coating that creates a protective film on a surface to allow good adhesion of the topcoat

Priming - Preparing a surface, or applying a first coat of paint before the finish coat(s)

Proportion - The relationship of the size, shape, and location of one part of a building to another part, or of one part of a building to the whole building, or of one building to a group of buildings

Protect - To safeguard the condition and character of a building or a property and its component parts, typically achieved through consistent maintenance

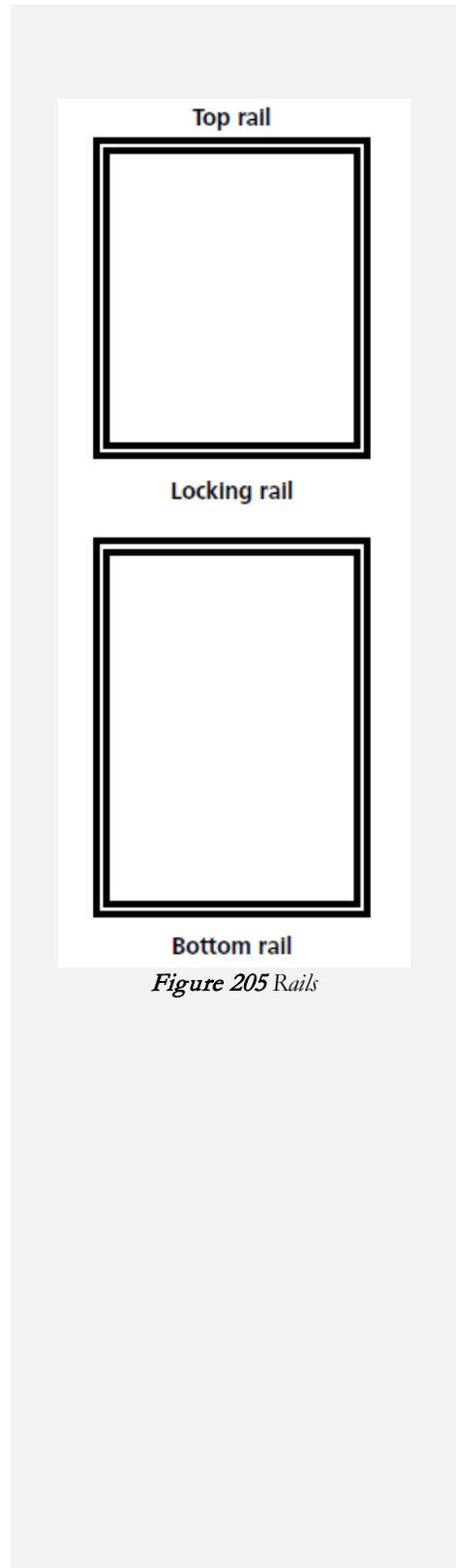
Protective Surface Coating - A layer of material applied to a surface specifically for the purpose of shielding the surface from the elements or other potential factors of deterioration

Public Street, Alley, or Way - Any thoroughfare for travel that is open to the public, either by foot or by vehicle, typically considered in relation to the buildings or parts of buildings that can be seen from it

Rafter - One in a series of roof beams that supports the roof sheathing

Rail - A horizontal framing member of a door or window (See Figure 219)

Railing - A barrier and/or hand support typically consisting of vertical members supporting a horizontal member



Reconstruction - The process of duplicating the original materials, form, and appearance of a vanished building or structure that was present at a particular historical moment based on historical research

Rehabilitation - The process of returning a building to a state of utility, through repair or alteration

Reinforce - To strengthen an architectural element by adding material and/or supporting elements in an attempt to save as much historic material as possible, as opposed to replacement

Renovation - The process of repairing and changing an existing building for modern use, so that it is functionally equal to a new building

Repair - To fix a deteriorated building element or material to make it functional

Replace - To remove a building element, material, or feature and install a different element in its place, thereby removing historic fabric from a building

Replacement in Kind - To install material of the exact nature of that which was removed

Repoint - To remove deteriorated mortar and apply new mortar to restore the strength and appearance of a masonry wall

Resin - A solid or semisolid organic material that provides paint with its film-forming character

Restoration - The process of returning a building and/or property as nearly as possible to its condition at a specific period of time in its history using the same construction materials and methods as the original

Retain - To keep a historic building element in place and/or in use, as opposed to removing and replacing it with a new element

Reversible - Describing an alteration or restoration technique that can be removed or otherwise undone in the future, without damaging the original historic fabric of the resource

Rhythm - An ordered repetition of elements composing the exterior walls of a building and giving the building its character; or the repetition of buildings or building elements on a street (See Figures 220-221)

Ridge - The upper edge of two sloping roof surfaces



Figure 206 A row of windows in this building creates a consistent rhythm

Rising Damp - The condition that exists when suction pulls groundwater into a masonry wall from the bottom up

Roof Material Pattern - Primarily the shape and configuration, but also the color, texture, and other visual properties of shingles, tiles, or other material used to cover a roof

Roof Shape - The overall form of the structure that covers a building, typically identified by the placement, number, form, size, and angle of the component slopes of that structure, and by the method by which the slopes are joined

Sandblast - The use of sand propelled by a blast of air or steam, to remove dirt, paint, or other materials from a wall surface, typically harmful to historic materials due to the loss of parts of the historic material along with the dirt or paint

Sash - The unit that holds the window glass

Scale - The perceived size of a building or building element relative to the forms and elements around it

Setback - The distance required between a building and the property line

Sheathing - The covering placed over the rafters as a base for the shingles or other finishing material

Shed Roof - A roof with a single slope

Shingle - A type of roof covering consisting of small units produced in standard sizes and a variety of materials and shapes to convey a variety of appearances, laid in over-lapping courses to prevent water infiltration

Shutter - One of a pair of small, hinged doors that covers a window or other opening, may be louvered (fitted with a series of slats) or solid (fitted with raised or recessed panels)

Side Gable - A gable roof building with the main entrance on a wall that is below one of the sloping sides of the roof, not below the gable

Sidelight - A slender, vertical window adjacent to a door or larger window, often divided into multiple panes and typically used in pairs, separated by the door or larger window

Siding - The nonstructural exterior wall covering of a frame building



Figure 207 This building is distinguished by a rhythmic series of porches

Significant - Describing a building feature that contributes to the overall design, appearance, and importance of a building, and is essential to maintaining the historic integrity of the building and/or the historic district

Significant Detail/Element/Feature - A detail, element, or feature that is essential to an understanding of the value and character of a historic structure or property

Significance of Later Changes - Over time, some changes to historic buildings may achieve significance in their own right, displaying features or characteristics of styles or types that are later than that of the original building, but which have recognized value of their own

Sill - The horizontal element at the base of a door or window opening, or at the bottom of a timber-framed wall (See Figure 222)

Slope - An inclined surface

Solid to Void Ratio - The relationship in size between the solid parts of a wall and the openings in the wall, including door and window openings

Spalling - The flaking of brickwork or stone due to the freezing and thawing of a wall, chemical action, or building movement

Spindle - A wooden element that has been turned on a lathe, typically used in railings and decorative elements

Spindle Work - A series of spindles

Storefront - The street level front of a store, including windows to display merchandise, an entrance or entrances, signs, etc.

Streetscape - The overall view of a street and its component elements, including the street, sidewalk, buildings, signs, traffic lights, street furniture, landscaping, etc., and also including fewer tangible factors such as rhythm, solid-to-void ratio, changes or consistency in building height, changes or consistency in setback, etc.

Stringcourse - A decorative, projecting horizontal molding, typically used to separate parts of a wall surface

Substrate - A material on top of which other material is installed

Swag - Ornament composed of draped foliage

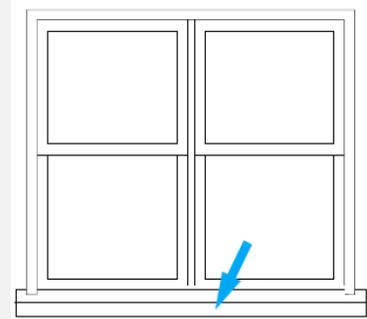


Figure 208 This pair of windows shares a sill

Synthetic - Referring to a manufactured material introduced in modern times, not available historically, and used as a replacement for a historic material, also called artificial

Terne - A corrosion-resistant combination of lead and tin

Texture - the visual and tactile qualities of the structure of a surface

Tooling Pattern - The shape and profile of a mortar joint

Topcoat - A coating whose formula is weaker than primer, but which contains more pigment

Transom - A window located above a door, a storefront window, or another window, sometimes operable (See Figure 223)

Truss Work - An ornamental treatment, typically used in gables, resembling the structure of wooden trusses

Turned - Describing an element that has a circular cross section produced by turning on a lathe

Valance - The decorative horizontal element below the lintel of the porch roof

Valley - The angle formed where two downward sloping roof surfaces meet at the bottom

Ventilation - The process of supplying fresh air to interior spaces

Vernacular - Representing popular local building practices

Water Blast - The use of propelled water to remove dirt, paint, or other materials from a wall surface, typically harmful to historic materials if applied at too strong of a pressure due to the loss of parts of the historic material along with the dirt or paint

Weather Stripping - A long piece of material applied to an exterior door or window to seal the joint between it and the surrounding frame, used to decrease air and water infiltration

Weep Hole - An opening that allows moisture to drain to the outside of a building typically used in storm windows

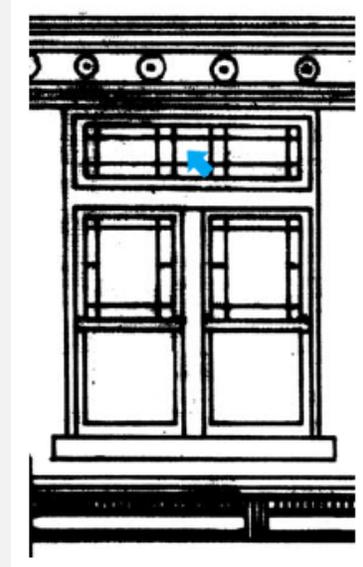


Figure 209 Transom Window

THE SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION

The following Standards are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.

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

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WINDOW SURVEY FORM

Window ID #	Material Type	Config	Age	Sash		Frame		Sill	
				<i>Photo #</i>	<i>Condition</i>	<i>Photo #</i>	<i>Condition</i>	<i>Photo #</i>	<i>Condition</i>
W101	Wood	6-over-6	~1970	01		02		03	
E101	Fiberglass	2-over-2	Unknown	04		05		06	

SOLEBURY TOWNSHIP CODE AND ORDINANCES

For the most updated list of rules and regulations regarding historic districts, please refer to chapter 11 of the Township Code at <https://www.ecode360.com/31520623>.

CERTIFICATE OF APPROPRIATENESS APPLICATION

For the most updated version of the Certificate of Appropriateness Application, as well as other forms related to the Historical Architectural Review Board, please refer to the Township website at <https://www.soleburytp.org/historical-architectural-review-board>.

RRIK APPLICATION

For the most updated version of the Repair or Replacement 'In-Kind' (RRIK) Fast Track Application, as well as other forms related to the Historical Architectural Review Board, please refer to the Township website at <https://www.soleburytp.org/historical-architectural-review-board>.