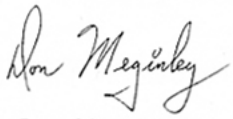
The Rittenhouse Fitler Historic District Manual

A Guide for Property Owners

Preservation Alliance
for Greater Philadelphia

This publication was produced by the **Preservation Alliance for Greater Philadelphia.** The Preservation Alliance is a non-profit, membership organization that actively promotes the appreciation, protection, and appropriate use and development of the Philadelphia region's historic buildings, communities, and landscapes.

If you are fortunate enough to own property in the Rittenhouse Fitler Historic District, you contribute every day to Philadelphia's living history by preserving and maintaining your individual building. This book is a concise guide to caring for your historic property. I hope that you will find it useful for many years. It is our privilege to work with you and the Philadelphia Historical Commission to protect this extraordinary neighborhood.



Don Meginley
President, Preservation Alliance for Greater Philadelphia

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Lisa Soderberg
Otto Sperr
Laura M. Spina
Michael Stern
Janice Stramara
Dr. George E. Thomas
Dr. Richard Tyler

Project Director/Editor: Elise Vider
Designer: Maryann Devine

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On the cover: A carved masonry detail from a Victorian rowhouse in the Rittenhouse Fitler Historic District. Photo: J. Randall Cotton.

Introduction

No other city in America can furnish such abundant and diverse material for an architectural retrospect. No other city in America is so conservative or has kept intact so much of the work of each succeeding period. It is a veritable paradise wherein architects may survey styles past and gone. ("Architectural Philadelphia Yesterday and Today," by Coften Fitzgerald, *Architectural Record,* July 1913)

A historic district is a sum greater than its parts. Its character derives from the cumulative impact of many historic buildings and structures maintained with sensitivity to their architecture and surroundings. Those who live, work, or own property in a Philadelphia historic district can feel more confident that their community will maintain its special quality because it is protected from inappropriate alterations, thoughtless demolition, and insensitive new construction by the Philadelphia Historical Commission.

There are other benefits to being part of a Philadelphia historic district. Property owners and architects, developers, and contractors working in the district can consult with the Historical Commission for technical and historical advice. Some rehabilitation projects may be eligible for federal investment tax credits. Experience in other cities has shown that historic district designation often boosts property values and stimulates investment. Most of all, historic districts foster community pride and help improve and maintain the quality of life.

There are some restrictions and a few extra steps if work that affects a building's exterior appearance is planned. But the regulatory process is not overly burdensome and you will find that the Historical Commission and its staff approach their job in a reasonable and practical way, with an understanding of contemporary living requirements and changes in building uses.

Using This Manual

This manual is intended as a practical guide for property owners in the Rittenhouse Fitler District, the largest historic district regulated by the Philadelphia Historical Commission. It explains the regulatory process involved in obtaining approval for projects in the historic district, and lists the types of work that may require Historical Commission review. It tries to address the issues that are likely to confront the historic property owner, but old buildings often present unique and unpredictable situations that may not be included here. Nor does the general guidance provided here constitute absolute guarantee of Historical Commission approval. The best strategy is to consult the staff of the Historical Commission.

The manual also provides information on the proper maintenance of historic buildings, and guidance on approaches to restoration and rehabilitation that the Historical Commission finds most successful. In general, property owners in Philadelphia historic districts should bear in mind that regular building maintenance is preferable to — and often prevents the need for — repairs; that repair of historic building fabric is preferable to replacement; and that replacement in-kind or restoration to the original appearance is preferable to alteration.

What is Regulated?

Under city law, the Philadelphia Historical Commission reviews all applications for work on any building, structure, site, or object, listed as historic in its own right or situated in a historic district, that alters the appearance or for which a building permit is required.

Building permit applicants start at the Department of Licenses and Inspections (L&I) and are routinely referred to the Historical Commission if the property is individually designated or is located in a historic district. Common applications include permits to replace doors and windows, reroof, add security features, or erect a building addition. A building permit is also required for demolition or new construction in a historic district.

Alterations which affect the exterior appearance of a designated property — back and sides, as well as the street facade — also require Historical Commission approval *even if a building permit is not otherwise required.* Such alterations include, but are not limited to, replacing windows, cleaning or repointing masonry, and painting facades. If you plan work which in any way affects the exterior appearance of your building, check with the Historical Commission. Interior work is reviewed by the Historical Commission only to ensure that the exterior is not adversely affected. For example, a kitchen remodeling might involve altering a window.

The Historical Commission is guided in its evaluation of applications by Section 14-2007 of the Philadelphia Code (widely known as the preservation ordinance) and *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings,* published in 1995 by the National Park Service. Both are available from the Historical Commission office.

The Application Process

Whether you are referred by L&I or bring your application directly to the Historical Commission, it is a good idea to consult with the Commission staff early in the planning process for guidance on preparing the application and providing all necessary support documentation. Incomplete applications are returned by the Historical Commission with a request for additional information.

Along with a completed building permit application available from the Historical Commission or L&I, you will need to provide the following documentation: dated and labeled pictures of the present condition of all locations where alterations are proposed (these pictures will remain the property of the Historical Commission); something that demonstrates the proposed materials and design (for example, a catalog picture, a roofing shingle, or a detailed drawing); and a cover letter that describes the proposed undertaking and any special circumstances you want the Historical Commission to consider. Depending on the nature of the alteration, you may also be asked to provide additional information, such as scale drawings, plans, or specifications. Contact the Historical Commission for further details before you plan to submit an application for review.

The timetable for approval depends on the complexity and nature of the project. Alterations to secondary elevations that face service alleys or are not visible from public rights-of-way or for interior work which will not affect the exterior are reviewed and approved within five working days by the Historical Commission staff.

More complicated applications are considered by the Historical Commission's Architectural Committee, a technical review body, and then by the Historical Commission itself. You or your representative will be asked to appear at the Committee's monthly public meeting to describe the proposal and answer questions. The Committee will subsequently make a recommendation to the full Historical Commission which formally votes on the proposal.

The Historical Commission will weigh the recommendations of the Architectural Committee and Commission staff with its own judgment at its next monthly public meeting, usually within two weeks, and will decide whether to approve, reject, defer (for not more than six months), or request resubmission of the application. The Historical Commission must vote on the proposal within 60 days of receiving the completed application.

If the Historical Commission accepts the recommendations of the Architectural Committee, a permit can be issued immediately. If revisions to your plans are suggested, the Architectural Committee and Historical Commission staff will work with you to revise your plans so that the work will be acceptable. If approval is denied, you may appeal to the Board of License and Inspection Review within 15 days, if you wish.

The law contains provisions for postponing applications and for hardship situations. Contact the Historical Commission for more information.

by Elise Vider, Preservation Alliance for Greater Philadelphia

The Rittenhouse Fitler Historic District

The Rittenhouse Fitler Historic District

The buildings of … the Rittenhouse Fitler District possess significance … not just as a grouping of individual landmarks, but rather as a series of streetscapes that give the area a unique sense of time and place. (Philadelphia Register of Historic Places)

Lying in the southwest quadrant of William Penn's Philadelphia, the Rittenhouse Fitler Historic District is an amalgam of several thousand buildings that have together served this city almost exclusively as a residential neighborhood for more than a century and a half. Concentrated within its boundaries are hundreds of buildings worthy of individual landmark status and thousands more that bind the whole together into a district. That continuity of architectural experience is the district's richest asset.

The district grew in roughly three phases, each of which has left its mark. First came the speculator-built housing whose handsome rows marched east-to-west and (to a lesser extent) west-to-east across the district between 1820 and 1870. Next came the great age of architect-designed townhouses and institutional buildings — bringing some of the greatest genius of American architecture to the district from approximately 1870 to 1914. And third, the period since just before World War I, which has seen the district's skyline rise with the construction of skyscraper apartment buildings.

While William Penn's young city was flourishing along the Delaware River in the 18th century, the neighborhood around Rittenhouse Square was largely wooded and sparsely populated — although the square itself was one of the five original squares laid out by Penn's surveyor in 1682. Brickyards and the occasional dwelling were all that dotted the landscape until about 1820 when speculators began to build houses in rows that extended eastward from the industry and wharves on the Schuylkill River. In the 1830s, the rows began to move westward from Broad Street and, for decades to come, developers packed the streets of the newly fashionable neighborhood with rowhouses.

These dwellings in the Greek Revival style, and later the Italianate, provided housing for the growing middle class and its expansion from Society Hill and West Washington Square. The design of the early rowhouses included little ornamentation, but each house typically had a plain cornice and window shutters to protect six-over-six panes of glass in each sash. By the mid-19th century, the buildings were growing in size and included more decorative details. Many houses had marble or brownstone accents, including water tables, window lintels and sills, and door surrounds. Larger sheets of glass, made possible by new technology, allowed windows with four-over-four and two-over-two sash. Decorative cornices became fashionable with Greek Revival modillions, Italianate

Jessie Willcox Smith, Philadelphia Art Alliance Post Card Series, c. 1923.

dentils, or Neo-Grec incising. Builders employed machine-made brick and thin mortar joints to create smooth, regular facades. Builders also used other materials for the facades, including brownstone and green serpentine stone.

By about 1870, the area around Rittenhouse Square was largely built up and fashion-conscious property owners began to commission architects to remodel or rebuild individual houses within the rows. Many of Philadelphia's greatest architects were kept busy in the decades that followed, designing new facades or buildings in the area. Frank Furness, Wilson Eyre, Frank Miles Day, Horace Trumbauer, and Paul Cret, among others, have left an architectural legacy that helps define the Rittenhouse Fitler district. So do the two significant open spaces that give the district its name. In 1896, residents created Fitler Square from an old brickyard, naming the park for a popular mayor. Paul Cret redesigned the landscape plan for Rittenhouse Square in 1913 in the fashionable Beaux-Arts style.

Beginning in the years just before the First World War, development in the area changed from low-rise rowhouses to high-rise apartment buildings. All around Rittenhouse Square and along Spruce Street, skyscrapers added more density to the area and accommodated the still-growing population.

Besides residences, the Rittenhouse Fitler District has numerous architecturally significant churches, along with social clubs, philanthropic organizations, schools, and other institutional structures. While the neighborhood did not originally have a commercial district, many corner houses were converted to shops on the first floor. Storefronts were also added to the houses along Walnut Street and many of the numbered streets to the north and south; today the Walnut Street corridor constitutes an important commercial quarter for the city.

The uniform streetscape of the many speculator-built rowhouses today provides an important backdrop for the architect-designed houses, churches, institutions, and commercial structures within the neighborhood. This dense mix of high quality residential and institutional, vernacular and architect-designed buildings is woven together into a single fabric that was designated in 1995 as the Rittenhouse Fitler Historic District.

Photo: J. Randall Cotton.

Besides its many rowhouse streets, the Rittenhouse Fitler Historic District includes gracious, early 20th-century apartment buildings.

Roofs, Cornices, and Related Elements

Water from a slate roofed building, if allowed to run into a cistern (after the first shower has washed the slate), is the purest and best water that can be used for drinking. Allowed to run off from buildings into tubs or barrels, it serves for watering cattle or horses, and the beasts will drink it in preference to any other. (Bangor Excelsior Slate Co., Easton, Pennsylvania, 1897 trade catalog)

The roof of a historic building, along with cornices, pediments, dormers, and other ornamental details, is critical to the architectural character of the structure and urban streetscape. The shape (mansard, hipped, etc.), material, pattern, color, and texture of a sloped roof greatly affect the building's appearance. Even on the typically flat-roofed Philadelphia rowhouse, the cornice and parapet at the roofline are key style elements.

The function of the roof is also critical, serving as the building's first line of defense against the weather, and taking the heaviest beating from the sun, wind, rain, snow, and ice.

The preservation of any structure, regardless of age, size, or design, is dependent upon a weathertight roof that protects the building from the elements, and a rainwater conduction system that directs water away from the exterior walls. Yet the roof and its associated structures are among the most vulnerable elements, and they must be maintained vigilantly to prevent the destructive effects of water leaking into the building.

What Causes Leaks?

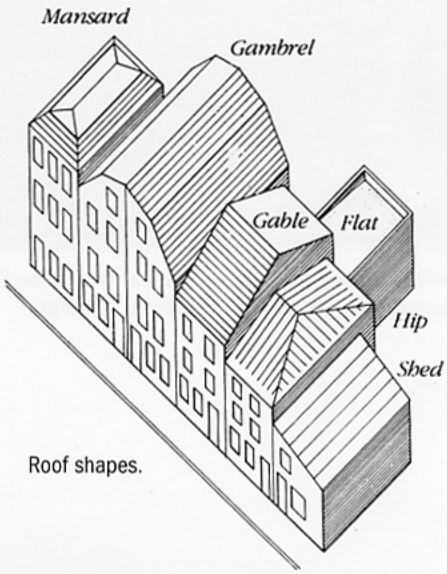
Typically, moisture penetration, causing the accelerated deterioration of the structure, is the result of one of the following problems:

- Faulty, clogged, or missing gutters or downspouts;
- Damaged or deteriorated roof structure, coverings, and/or fasteners;
- Deteriorated or missing flashing at the intersection of roof planes or penetrations such as dormers, vents, or chimneys;
- Damaged or deteriorated roof dormers, skylights, hatches, or roof ornaments;
- Deteriorated chimneys, parapet walls, or cornices and/or associated flashing.

Routine Maintenance

Even the highest quality roof will not protect a building effectively from the elements without proper maintenance. All roofs should be inspected at least twice a year. Look for slipped, missing, or damaged shingles, which should be repaired or replaced as quickly as possible to prevent leaks and water damage. Where possible, periodic inspections of the underside of the roof from the attic space following a storm or freezing temperatures may provide early warning of potential leaks or condensation caused by inadequate ventilation.

Gutters and downspouts should be inspected at least twice a year, more if they clog with leaves and debris from nearby trees. The installation of gutter screening at downspouts and over the full length of open gutters can minimize such clogging, although the gutters will still need frequent cleaning.



Roof shapes.

Roofing Materials

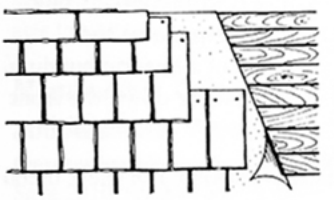
The typical Rittenhouse

area rowhouse is characterized by a very low sloped roof which is invisible from the street. There are many buildings, however, in which steep and complex rooflines are an integral part of the architecture.

"Flat" roofs (they actually have a slight pitch) are usually covered with **built-up roofing** which consists of alternating layers of waterproof membranes and other bituminous materials. These roofs deteriorate by blistering and cracking. Flat, built-up roofs can be repaired by adding layers of waterproof membranes over the existing roof. After two layers, however, the Philadelphia Building Code requires that the old roof coverings be removed down to the underlying wood sheathing before applying a new roof to keep things watertight and to reduce the weight of the roofing material.

Historic roofing materials for **sloped roofs** that are typical to Philadelphia and to the Rittenhouse Fitler Historic District include metal, slate, and tile. The earliest houses in Rittenhouse had wood shingle roofs, but this material is virtually nonexistent in the historic district today. The life span of each roof material depends on many factors including its weathering properties, the method used to fasten the material, and the roof configuration and orientation.

Metal roofs shed water effectively from a relatively shallow pitch. Historic metal roofs typically consist of sheets that are about two-feet wide, joined by a full-length soldered seam, either "standing" or "folded." The metal is usually lead, copper, sheet iron, or galvanized steel plated with tin or terne (an alloy composed of lead and tin). If painted every eight to 10 years to prevent corrosion, a metal roof will last 60 to 80 years. Typical causes of deterioration include puncturing by sharp objects, nails, or workers' feet, and the breakdown of the metal by urban pollutants.



Hugh J. McCauley, AIA

Photo: J. Randall Cotton.

Top, roof planks with felt paper and slate shingles.
Bottom, slate adds picturesque effects to the roof.

The varied colors and shapes of **slate** shingles enliven many of the historic houses of urban Philadelphia, particularly on mansard roofs. This masonry roofing material was popular because of its aesthetic potential as well as its durability and fireproofing qualities. Depending upon the type of slate used, the life expectancy of a slate roof ranges from 80 to 125 years. Although installation and material costs are high, slate roofing requires minimal maintenance, is extremely resistant to erosion, and is more economical in the long term. Over many years, however, slate will begin to de-laminate (peel off in layers). Sometimes, individual slates will loosen due to the failure of the fasteners.

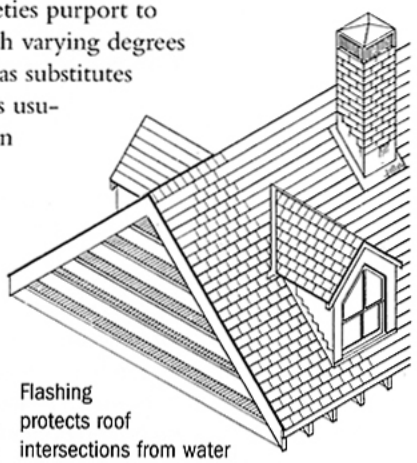
Clay or terra cotta tile roofs also appear on some historic Philadelphia houses. If maintained properly, their life span is approximately 125 years. Like slate, tile is resistant to erosion; however, tiles are brittle and can crack or shatter.

Asphalt and fiberglass are modern roofing materials, with a life span of only about 15 to 35 years. Typical deterioration patterns include splitting, curling, eroding, or disintegration from continued exposure to the weather. Installation of asphalt and fiberglass is less labor intensive and consequently less expensive than the historic materials listed above.

Asphalt and fiberglass roofing is produced in long sheets, designed to give the appearance of individual shingles. Some varieties purport to simulate historic materials, with varying degrees of success. However, their use as substitutes for historic roofing materials is usually discouraged, particularly on visible street facades.

Flashing

Flashing, one of the most important and vulnerable parts of a roof system, consists of strips of sheet metal inserted at the intersection of roof surfaces or where the roof is penetrated by dormers, vent pipes, chimneys, etc. Typically, the roofing material should overlap the flashing by



Hugh J. McCauley, AIA

Flashing protects roof intersections from water penetration. Here, valley flashing is used at the dormer gable and step flashing alongside the dormer and chimney.

Photo: J. Randall Cotton.

Care should be taken to avoid obtrusive gutters and downspouts.

a minimum of four inches. Cap flashing seals the tops of cornices and walls.

Failure of the flashing is one of the major causes of roof deterioration and water leaks. Flashing should be inspected periodically for deterioration due to poor design or workmanship, thermal stress, or metal decay of flashing material or fasteners. All deteriorated or unfastened flashing should be replaced or repaired immediately. Small holes can be repaired with sheet metal patches. Depending on the flashing material, it may be advisable to apply a metal preservative paint.

Replacement of flashing on an existing roof may require the removal of large sections of the roof surface. When installing a new roof, make sure that top quality flashing is used, and that the roofing contractor is fully knowledgeable about the importance of flashing in maintaining a watertight roof.

Rainwater Conduction System

The system of gutters, downspouts (also called leaders), and drains which collects water from the roof and directs it down and away from the building wall is critical to the effectiveness of any roof system.

In general, the replacement or repair of specific, individual failed elements is the recommended solution, rather than abandoning prematurely the entire original rainwater conduction system designed for the house. All replacement components should match the profile, materials, and dimensions of the original elements.

If it is necessary to add gutters and downspouts, they should be visually unobtrusive and of historically appropriate forms, and should not obscure the architectural detail or character of the building. To the extent possible, all downspouts should be located at inside corners and on side elevations, rather than on the front facade of the building. They should be painted to blend with the facade or other trim.

The rainwater conduction system should be inspected and thoroughly cleaned at least twice annually, more if the building is surrounded by trees. Leaves, twigs, and debris can quickly clog drains and cause overflows. Particular vigilance is required to ensure that internal gutter systems are maintained in good working order, because failure can allow unseen water damage to structural components within the building. These simple maintenance steps can prevent much unnecessary and costly water damage, including peeling paint, rotted wood, and crumbling masonry.

Cornices and Parapets

Roof cornices and parapets are major architectural features of flat-roofed rowhouses and contribute significantly to the rhythm and continuity of Philadelphia streetscapes. Removing or covering them with aluminum or vinyl siding devastates the appearance of the individual building and the entire block; their removal exposes the building facade to excessive weathering.

Cornices should be kept well sealed and periodically repainted. Their removal, alteration, or obliteration with siding is inappropriate. Not only does an intact cornice preserve the appearance and character of a historic building, it prevents water from washing down the front facade.

Cornices are usually constructed of sheet metal or masonry, although there are cornices of wood, cast iron, and copper throughout Philadelphia. Deteriorated cornice elements should be replaced with matching material. If it is absolutely necessary to remove an existing cornice, it should be replaced with a substitute which matches the profile and detailing of the original. Replacement cornices are available in alternative lighter weight materials such as fiberglass and GFRC (glass fiber reinforced concrete).

On many rowhouses, what appears to be a mansard or gabled roof is actually a parapet that masks a flat roof. Parapets also mark the masonry party walls between adjoining rowhouses. Parapets are almost always built of masonry and require adequate flashing where they meet the roof. The coping on parapets, and joints between coping and wall, should be kept well sealed and in good repair to prevent water from leaking through the roof and into the building.

Photo: J. Randall Cotton.

A well-maintained original cornice enhances the appearance of a historic building.

Dormers, Chimneys, and Other Roof Elements

Dormers, chimneys, and roof ornaments such as finials, iron cresting, crockets, ornamental ridge tiles, dormer brackets, etc., give character and style to buildings and should not be removed or altered. Dormers are usually constructed of materials used throughout the rest of the building. Chimneys are almost always constructed of brick and are sometimes lined with mortar, tile, ceramic, or metal flues.

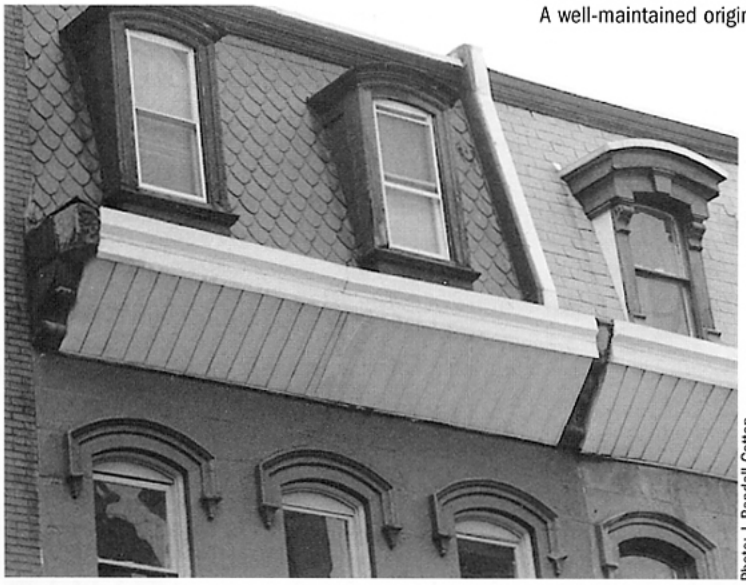


Photo: J. Randall Cotton.

Sheathing a cornice in siding destroys historic character.

Deterioration and leaks at dormers, chimneys, and other roof elements typically originate at the flashing at the juncture point with the roof. Moisture infiltration may also occur at the top of the chimney. Water may travel down the sides of the flue, soaking the chimney wall and allowing water into the building. This source of water penetration can be prevented if the chimney is lined with an impervious clay flue liner which is as close to the original size as possible. A properly installed flue liner ensures safe chimney operation. The Philadelphia Historical Commission does not approve metal "B" vents sticking out of chimneys. Instead, use terra cotta liners or a metal liner cut below the brick. A proper chimney cap prevents the entry of rain or snow, and permits adequate ventilation. Installation of chimney liners and caps is a job for a skilled professional to make sure that the chimney operates safely.

Other sources of water infiltration at chimneys include open and deteriorated mortar joints. These should be repaired as described in the chapter on Masonry to match the color, texture, tooling, and constituent composition of the original mortar. Covering masonry chimneys with tar, cement, or stucco is not recommended. Even unused chimneys should be kept in good repair, and capped to allow for adequate ventilation.

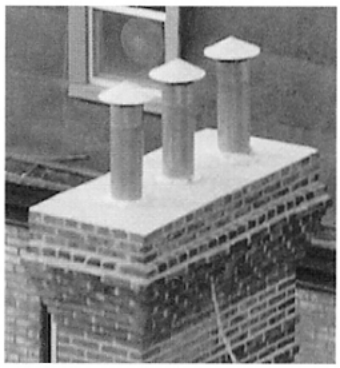


Photo: J. Randall Cotton.

Metal "B" vents are not allowed by the Philadelphia Historical Commission.

Chimneys, dormers, skylights, hatches, finials, and crestings, etc., are particularly vulnerable to the deteriorating effects of the weather and should be periodically inspected and maintained to stay watertight.

Antennae and satellite dishes should be installed so they are not visible from the street.

A Word About Metal Roofing Materials

All replacement metals on roof and rainwater conduction systems should match or be compatible with the original metals. Contact between non-compatible metals can create a galvanic action, which will cause the metal to corrode. For example, when new aluminum downspouts are fastened to original copper gutters, an electrolytic reaction will quickly corrode the aluminum parts. Some roofing materials will similarly corrode metal fasteners or flashing, so it may be necessary to coat the metal parts.

Repair and Replacement of Historic Roofing Systems

Repair of damaged or deteriorated sections of original roofs saves money and the character of the building. Eventually, however, all roofs require replacement. All new work should be compatible with the historic and architectural character of the building, and original detailing should be saved or replicated wherever possible.

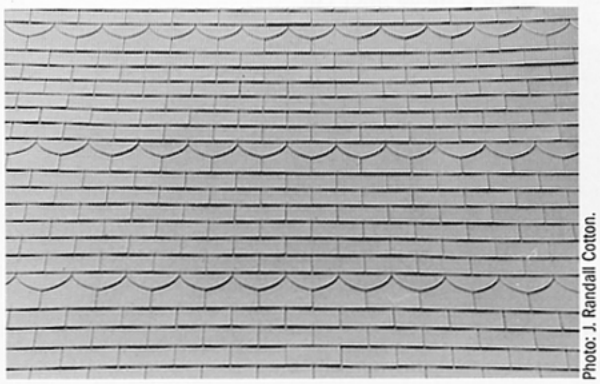


Photo: J. Randall Cotton.

Laid in a decorative pattern, asphalt shingles can sometimes imitate missing slate.

Individual slates may fall out from time to time. This does not mean the roof itself is failing, but rather that the fasteners (usually nails) that hold the slates in place have rusted. It is usually more cost effective to have an experienced roofer replace dislodged slates — on an annual basis, for example — than to replace the entire roof prematurely.

Slate, clay, or terra cotta tile roofs are brittle and cannot be walked on without the risk of cracking and breaking. In order to carry out repairs on these roof types, wide planks can be laid over the roof surface or scaffolds and other devices installed.

The common practice of coating a historic slate, tile, or metal roof with tar paper or other bituminous material should be avoided. The bituminous material not only compromises the architectural integrity of the historic building, it also damages the original material, and is an ineffective and short-lived sealer which does not prevent water infiltration.

When repair is no longer practical, the ideal course is to replace the roof with historically accurate materials. These may be more expensive than modern materials, but have a far longer life span. Clues to the appearance of the original roof may be obtained by studying neighboring or similar houses, from historic photographs, or in consultation with the staff of the Philadelphia Historical Commission. Often, the historic roof is still in place, hidden under layers of newer roofs, and can be studied by removing a section of the later material. When a roof is being replaced, it is advisable to go to the extra expense of removing all old roofing so that the underlying sheathing material can be inspected and repaired or replaced if necessary. Built-up layers of roofing also make it difficult later to trace and correct leaks. The Philadelphia Building Code allows a maximum of two layers of roofing material.

If a modern alternative must be used on a roof that is visible from the street, careful consideration should be given to matching the scale, texture, configuration, profile, detailing, and color of the original as best as possible. Contact the Philadelphia Historical Commission for alternatives. If the roof is flat, or is not visible from the street, the substitution of a more economical modern roofing method would be an acceptable solution.

by Lisa Soderberg, The Hillier Group

Not Subject to Philadelphia Historical Commission Approval

Minor patching of cornices or other decorative elements to restore their original appearance

Subject to Philadelphia Historical Commission Approval

Constructing roof hatches, decks, or skylights
Altering or removing dormers, dormer windows, chimneys, or other roof elements
Replacing roofing material
Replacing surfaces or decorative components of cornices
Replacing the entire cornice with an exact replica of appropriate design or major repair to cornice
Repairing or replacing flashing if large portions of roof are removed
Replacing or repairing skylights, chimneys, roof hatches, and other features which are not visible from the street
Re-setting and repointing coping stones on parapet walls
Replacing or repairing flat built-up bituminous roofs
Installation of antennae or satellite dishes
Replacing downspouts and gutters

Masonry

Brick is daily receiving its due recognition as the most durable and most pliable material for architectural work. No material withstands the elements of fire, water and air equal to burnt clay, and no material can be handled in so many different ways and with such diverse effects as bricks. *(Philadelphia Real Estate Record and Builders' Guide,* May 28, 1890)

Philadelphia is a red brick city, and the Rittenhouse Fitler Historic District is no exception. But a variety of other masonry materials — brownstone, serpentine, stucco, terra cotta, limestone, and more — used both as trim and, less frequently, for primary facades, contributes to the neighborhood's rich textures and solid presence.

Maintaining Masonry

Masonry is defined as the work of the mason using a wide variety of natural and man-made building materials such as stone, brick, concrete block, tile, etc. Masonry is one of the most durable of building materials, and, properly maintained, can last indefinitely. It is, however, susceptible to deterioration from acid rain, airborne pollutants, wind, salting of sidewalks, fungi, or plants, which can all leave masonry vulnerable to water penetration and subsequent freezing and thawing which will ultimately damage any form of masonry.

The first line of defense, therefore, is to keep masonry as dry as possible and to make sure that it is allowed to dry if it does get wet. Roofs, gutters, cornices, and downspouts should be vigilantly maintained (see the chapter on Roofs, Cornices, and Related Elements) to prevent moisture from penetrating walls, and storm drains should be kept clear to help keep foundations dry. It is also essential that the mortar (or "pointing") surrounding masonry units be kept in good repair, to keep masonry surfaces tight and prevent moisture penetration.

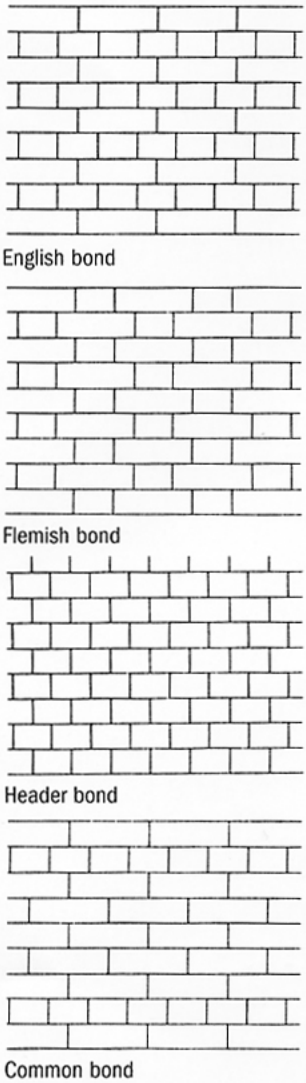
Common Masonry Materials

Brick is the predominant exterior building material throughout Philadelphia, testimony to the abundance of good, cheap, local red clay. Until just before the Civil War, brick was molded by hand, resulting in a brick that was somewhat irregular in shape and color. Later machine-made brick was harder and more uniform in size and appearance.

The hardest, best quality bricks were usually reserved to face exposed facades. The softer, so-called salmon brick (also called common brick) was relegated to unexposed areas, such as the party walls between rowhouses, and to secondary elevations. The bond pattern in which brick is laid in a wall provides visual interest and characterizes various styles of architecture.

Bricks that are exposed to excessive moisture can flake or disintegrate into powder. Abrasive cleaning, such as sandblasting, makes bricks more susceptible to this type of deterioration. (See section on Cleaning further in this chapter.)

Terra cotta is a man-made clay product often used to imitate carved stone for decorative elements, although it was also used as a veneer for

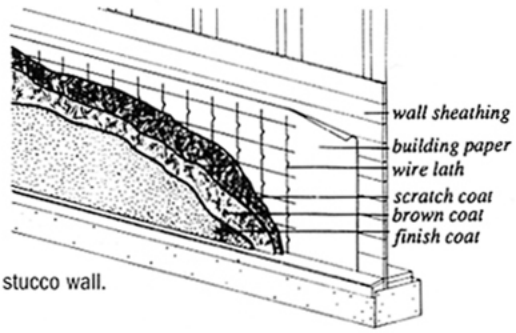


Brick bond patterns.

Old-House Dictionary.

entire facades. Terra cotta may be glazed or unglazed, molded or carved, and may be any color from white to brownish red.

Stucco, sometimes referred to as cement plaster, is an exterior wall covering consisting of Portland cement, lime, sand, and water. Old



Old-House Dictionary.

A stucco wall.

stucco might also include binders of animal hair, straw, pebbles, bits of brick or coal, or even sea shells. Stucco is traditionally applied in three coats directly over brick or stone rubble walls with a finish that is either smooth, scored to resemble stone, or rough textured. Stucco tolerates movement and allows moisture to pass to the wall surface and evaporate. Nevertheless, it is not advisable to stucco a brick facade, since it hides the original facade, may damage the brick, and conceals structural problems.

Granite is a natural stone, prized for its hardness and durability. Its visual characteristics include a wide range of color from gray and blue-gray to red and black, a glossy or matte finish, and a speckled appearance. Granite is expensive to quarry and difficult to build with, and it is found primarily as a base and as trim on institutional buildings.

Limestone is commonly used for lintels, window sills, and water tables and as a face material on some institutional buildings and late 19th-century homes. Limestone is easy to work with, but is vulnerable to erosion due to acid rain. Those areas of limestone protected from regular washing of rain are prone to accumulate deposits of damaging gypsum crust. Limestone colors include brilliant white, cream, and gray.

Serpentine is a light-to-dark green, granular stone that was popular in the late 19th century as both trim and facing material. A relatively soft stone, it is highly vulnerable to decay caused by the freeze-thaw cycle and further exacerbated by the effects of acid rain. Serpentine is widely found in the Rittenhouse Fitler Historic District, adding an important element of color to the streetscape and individual building facades, and should not be covered with stucco. It can be successfully patched or repaired by a qualified building professional.

Marble is used primarily as building ornament and for steps and is susceptible to damage by airborne pollutants.

Sandstone has a coarse, grainy texture and a matte appearance. Brownstone is the common name for the brown (or, occasionally, red or purple) sandstone which was popular as both trim and facing in the late 19th century and abounds in the district today. A porous material, brownstone easily absorbs moisture, allowing sub-surface freezing and expansion which causes erosion and spalling, in which the stone comes apart layer by layer.

The problems with brownstone facades are made worse by the fact that many late 19th-century builders set the stones with the grain running vertically. As a sedimentary stone, brownstone is formed in horizontal planes and is strongest when laid in that position. Laying the stone upright and piling on other stones fractures the brownstone, allowing water to penetrate its surface and contributing to the spalling that plagues many brownstone facades today.

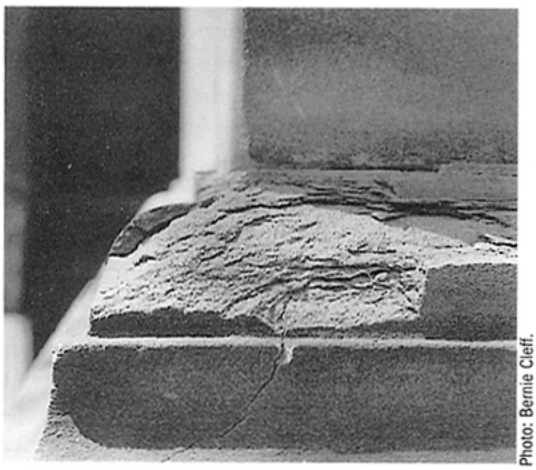


Photo: Bernie Cleff.

Brownstone is susceptible to the damaging effects of weather.

Cast stone, commonly used as a trim material, is cement used to imitate stone. It can be cast in virtually any shape, including ornamental designs.

Cleaning

Masonry cleaning, when done incorrectly, can result in serious problems that far outweigh any aesthetic gains. Brick, especially, has a hard, protective surface formed during the manufacturing process which can be damaged by cleaning, leaving the wall vulnerable to moisture. If, however, cleaning is necessary to remove graffi-

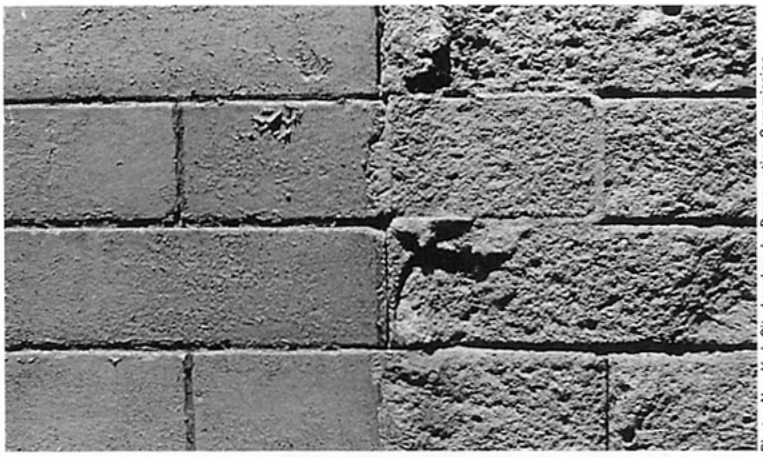


Photo: New York City Landmarks Preservation Commission.

The negative effects of abrasive cleaning or sandblasting on brick are evident on the right.

ti, waterproof or anti-graffiti coatings, grime, or staining from metal or organic growth, the most gentle possible method should be used. Consult with the staff of the Philadelphia Historical Commission before undertaking any cleaning, and keep in mind that most masonry cleaning is a job for experienced professionals who should do a test patch before proceeding.

A natural-bristle brush, mild household detergent, and buckets of water may be all that is needed. If this method fails to produce satisfactory results, progressively stronger methods can be tested by a practiced contractor.

Low-pressure water wash, at no more than 600 pounds-per-square-inch (psi) and no more than three to five gallons-per-minute (gpm) using a fan tip nozzle gun, can be used for most materials. Even at this low pressure, however, the water can remove the surface of soft brick and mortar. High-pressure water wash (above 600 psi) is not allowed; this method can cause water to infiltrate the building, abrade the masonry surface, dislodge soft mortar, and break carved details. Spraying or dripping water at a low pressure and volume over a prolonged period of time avoids the abrasive effects of pressurized washing, but saturation of the facade may cause mildew, rusting of any metal in the wall, or damage to the building interior.

A number of chemical cleaning methods are available, all involving wetting the surface with water to avoid excessive penetration of the chemical, brushing on the chemical cleaner, neutralizing the chemicals and, finally, rinsing with a low-pressure water wash. Application of these products is strictly a job for skilled professionals, and requires careful testing and extreme caution. For instance, the application of an acid-based cleaner on marble or limestone can seriously damage the stone's surface. High concentrations of some cleaners can cause staining and can alter the physical characteristics of the stone. Poultices are chemical pastes made up of an inert material mixed with an appropriate solvent that draw stains from masonry as they dry. They are used mostly for stubborn spot cleaning.

Depending on its nature, graffiti can be removed from masonry surfaces. Contact the Philadelphia Historical Commission before attempting any graffiti removal for advice on how to proceed. Graffiti removal should always be done as soon as possible, using the gentlest available method, and testing carefully on a small, inconspicuous area. Small amounts of graffiti can often be removed by a capable do-it-yourselfer, using commercial paint removal products and a garden hose spray. Do not use steel wool, wire brushes, or anything abrasive — not even baking soda, harmless as it seems — and make sure to wear protective clothing, eyewear, gloves, and a face mask.

Removal of more extensive graffiti is a job best left to a skilled professional. Make sure the contractor tests carefully, paying particular attention to whether the product leaves a faint image (a "ghost"), causes the graffiti to spread, or changes the physical character of the masonry.

Abrasive cleaning in the form of sandblasting, or the use of any type of abrasive grit, is damaging to masonry and should be avoided under all circumstances. Abrasion erodes the surface of the masonry and opens mortar joints, allowing moisture penetration, and obliterates carvings and details.

Masonry Coatings and Paint

Masonry coatings are rarely necessary or effective. Masonry needs to "breathe" so that any moisture in or behind the masonry can escape through the surface. Many commercial masonry coating products, including waterproofing sealers, water repellents, graffiti protectors, consolidants for deteriorating masonry used on a large scale, and even paint, are more likely to trap moisture and eventually harm the wall or force moisture to migrate back to the interior, caus-

ing interior damage. Even water-repellent masonry coatings that claim to be "breathable," allowing water vapor to pass, are not recommended.

Furthermore, masonry coatings may alter the color and appearance of historic masonry and cause permanent maintenance headaches, attracting dirt, forming a patchy appearance as they age, and proving difficult or impossible to remove.

The use of all masonry coatings should be avoided, except under special circumstances (such as where a brick wall has been severely damaged by sandblasting), and only after consultation with the staff of the Philadelphia Historical Commission.

Painting brick or stone may seem innocuous, but paint, too, can create an impermeable film and cause serious moisture problems and spalling. Painting also creates unnecessary maintenance; like all surfaces, masonry, once painted, will need periodic repainting. And, of course, paint radically changes the appearance of historic masonry.

Paint removal should only be undertaken after careful analysis of the condition of the masonry and the reason for the initial painting, and after consultation with the staff of the Historical Commission.

If painted masonry needs repainting, it is important to use a paint that is designed for masonry that does not create an impermeable film. Avoid epoxies, most alkyd paints, or any textured paint. The color should be similar to the original masonry.

Masonry Repair

Repair of damaged masonry is a specialized job for a skilled professional. Masonry consolidants such as silanes, acrylics, and epoxies penetrate the pores of the stone, making it stronger and resistant to further deterioration. Consolidants can bring disintegrating, crumbling, spalling, and sugaring masonry back together and increase the masonry's strength and resistance to further deterioration. However, inappropriate application of these materials can result in further damage to the stone, changing its appearance and making it less breathable and subject to damage by frost.

Broken masonry can sometimes be repaired using new or salvaged materials by attaching broken elements with non-corroding pins or a non-rusting material scored for proper anchorage. Use epoxy mixed with the powder of the masonry to be patched to bond the joint between the two pieces. Care should be taken not to patch across mortar joints, since these joints need to remain flexible. The joint should be filled with mortar that matches the original in appearance and composition, and the masonry patch should replace only the material that is missing. This method is best used for decorative pieces and is not practical for repairs of masonry materials that cannot be matched, such as brownstone, which is no longer quarried.

An alternative method for more general use, particularly effective with brick, is to remove the unit of masonry that is damaged to its full depth or to sound subsurface material. Replace with the new or salvaged material using a traditional mortar. The brick should match in size and color. Again, care should be taken to maintain the mortar joint. Missing masonry elements can also be replaced with carefully crafted, molded cement patches that incorporate powder of the replaced masonry.

Green serpentine, widely used in the Rittenhouse Fitler Historic District as a facing and trim material, can be patched with green-tinted stucco, taking care to match the joint pattern.

All cracks should be evaluated by a qualified structural engineer for underlying structural problems and any such issues should be addressed. Generally, the wider and longer the crack, the more serious the problem. Short cracks that split masonry units are also potentially serious. Cracks usually appear at corners, in arches, or where different building materials meet.

The procedure for patching damaged areas of stone or resurfacing an entire facade is essentially the same. Because the repair of small patches of deteriorated stone is as complicated as resurfacing a whole facade, qualified contractors should be retained for any work involving stone repair. In order to retain as much original fabric as possible, only those areas of a building's masonry facade which are deteriorated should be replaced.

Resurfacing and patching work should only take place when the exterior temperature remains a constant 45-degrees F or above for a 72-hour period from the commencement of work, or the materials will not properly cure. The Philadelphia Historical Commission usually requires that a patch test of the proposed finish coat of the masonry patch be reviewed and approved by the Commission staff before the work begins.

The following procedure for patching or resurfacing sandstone is based on the most recent research on sandstone repair and is reprinted courtesy of the New York City Landmarks Preservation Commission:

Preparation of the Surface: Cut back all deteriorated surfaces to be repaired to a sound base with a toothed chisel to remove all loose stone and provide a rough surface.

Mechanical Keying: To create a mechanical key or holding mechanism for the patch, undercut the edges of the patch to form a slight dovetail and drill 1/2-inch diameter holes 1/2-inch deep, spaced two to three inches apart in staggered rows. The angle of the holes should be varied.

Application of Patching Material: Proper application of patching material involves several steps:

A. **Surface Washing:** Wash the prepared surface with water and a soft brush;

B. **Slurry Coat:** Apply a thin slurry coat with a brush and rub vigorously into the surface. The slurry coat consists of material in the following mix by volume:

   1 part white Portland cement

   2 parts type S lime

   6 parts sand

   Mix with water

C. **Scratch Coat:** The first scratch coat should be pressed into the slurry coat while the slurry coat is still moist. Each scratch coat should be scored before initial drying to provide a key for following coats. No coat should exceed 3/8 inch in thickness. About two to four hours should be allowed between applications of scratch coats. Scratch coats consist of material in the following mix by volume:

   1 part white Portland cement

   1 part type S lime

   6 parts sand

   Mix with water

D. **Finish Coat:** The finish coat is applied once the patch has been built up to the required thickness. Only this last coat is formulated to match the color and texture of the stone being repaired. The finish coat should be formulated as follows:

   1 part white Portland cement

   1 part type S lime

   2-3 parts sand

   3-4 parts crushed stone

   Dry pigments

   Mix with water

- All measurements are by volume; all ingredients should be combined dry and then mixed with potable water; use dry pigments (natural or synthetic stable oxide pigments) when crushed stone is not sufficient to give a color match. Be careful not to exceed recommended maximum amounts, as too much pigment reduces strength and will give unstable color.
- The best brownstone patching contains actual crushed stone. Use stone removed from the area being repaired or old stone with the same qualities. The crushed stone should be ground and passed through a 16-mesh screen, and washed thoroughly.

Surface Finishing: Surface should be finished to match the original stone tooling or existing condition. Possible surface treatments include damp sponging (stippling), dry troweling with a wooden float, and acid etching with dilute hydrofluoric acid, all executed while the patch is partially cured to a leather hardness.

Repointing

Like the flexible tendons that bond bone to muscle in the human body, mortar is a malleable substance that bonds bricks or masonry units to one another. Repointing, sometimes

called tuck-pointing, is the process of removing deteriorated mortar, and replacing it with new mortar.

It is essential that mortar — like human tendons — be flexible to protect the masonry — the bones — that surrounds it. Masonry walls must be able to move with the slight movements caused by fluctuations in temperature, building settlement, and vibrations. If the mortar is too strong, such movements will cause the masonry to crack or spall, allowing water to penetrate and do further damage. Instead, mortar must be sufficiently soft to absorb small movements. It is much less expensive and invasive to repoint a wall than to rebuild it.

Removal of deteriorated mortar is best done by hand. A skilled mason may use a thin diamond- or carbide-tipped blade on horizontal joints. Care should be taken to remove only the old mortar without damaging the edges of the masonry units. Mortar should be removed to a depth of two-and-one-half times the height of the joint or deeper, if necessary, to sound mortar.

Repointing mortar should be tried on a test patch, and evaluated after it has cured for how well it matches the original in color, hardness, and joint profile.

Repointing mortar should normally be "cut" or softened by adding lime to the mix. Avoid using too much cement; cement-rich mixes are too hard for historic masonry. The Philadelphia Historical Commission must approve a pointing sample before work can begin.

One good mortar formula, recommended by the New York City Landmarks Preservation Commission for most 19th-century buildings (although specific circumstances may necessitate a different recipe), is as follows:

1 part Portland cement (ASTM C - 150, Type I)

2-1/2 parts lime

5-6 parts sand

- Parts are by volume; mix dry ingredients first before adding potable water; use dry pigments (natural or synthetic stable oxide pigments) to tint or color mortar; mix all ingredients thoroughly.

Individual mortars will vary according to the type of aggregate (sand, pebbles, or even shells) and experimentation will be needed for a good color match.

The finished joint profile should be slightly recessed from the face of the wall. Avoid overfilling the joint and be sure not to create a horizontal shelf for water to collect. If water does wash down the wall, it should flow unimpeded or be deflected away from the wall.

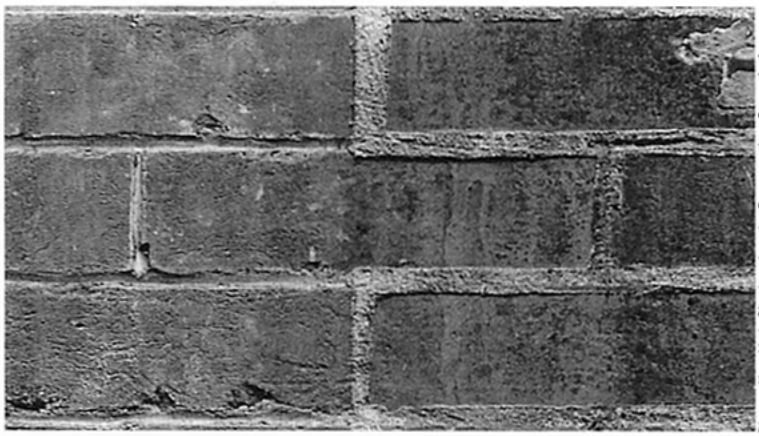
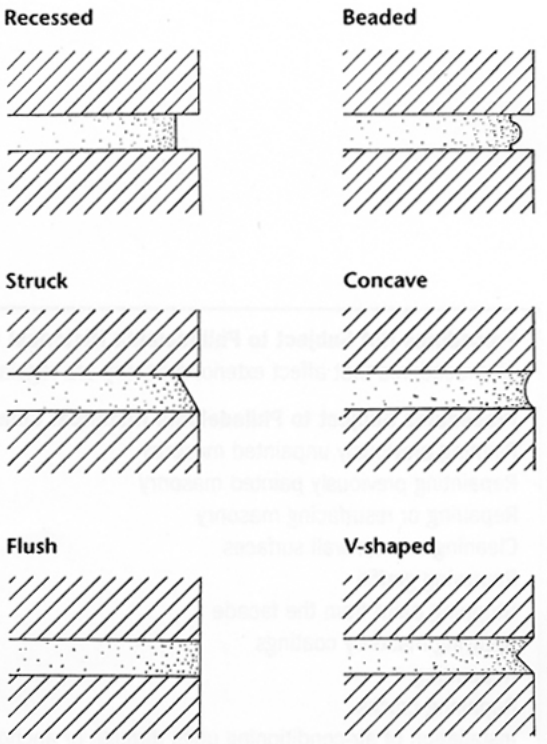


Photo: New York City Landmarks Preservation Commission.

In a good repointing job (left), the new mortar matches the existing mortar in color, hardness, and joint profile. A poor repointing job (right) can destroy the original appearance of the building. Here, the mortar joints are too wide and the composition of the mortar is too hard.

Replacement Siding

Encasing a masonry structure or its decorative elements, such as the cornice, in aluminum or vinyl siding is not allowed in the historic district. Re-siding obliterates the historic appearance of the



New York City Landmarks Preservation Commission.

Mortar joint profiles.

building and masks any potential problems on the building surface.

Applying a stucco finish on exposed, former party walls between rowhouses is acceptable. Such stucco must have a smooth finish; special decorative finishes are not allowed. Beige may not be the appropriate color; better to match the brick or other masonry on the building. Contact the Philadelphia Historical Commission for advice.

Air Conditioners

The insertion of an air-conditioning unit through a hole cut into the facade of a masonry building causes irreversible damage to the building and must be avoided. If air-conditioning units installed in windows require support brackets, these should be affixed to the mortar joints only — not into the masonry.

by Joseph F. McCarthy, RA, adapted, in part, from the New York City Landmarks Preservation Commission *Rowhouse Manual*

Procedures Not Subject to Philadelphia Historical Commission Approval
All procedures that affect exterior masonry are regulated.

Procedures Subject to Philadelphia Historical Commission Approval
Painting previously unpainted masonry
Repainting previously painted masonry
Repairing or resurfacing masonry
Cleaning exterior wall surfaces
Removing graffiti
Stripping paint from the facade
Applying masonry coatings
Repointing
Repairing cracks
Installation of air-conditioning units through or anchored in masonry
Installation of siding and cladding

Windows

Modern machinery, experienced workmen, and the use of carefully selected materials produce "Bilt-Well" windows and sash which will grace the dwelling, fit snugly where used, and give lasting service. (Carr-Trombley Mfg. Co., St. Louis, 1925 trade catalog)

Windows are key to defining a building's historic character. The style, size, configuration, profile, and materials of the windows' features, including frames, sash, muntins, glazing, sills, heads, hoodmolds, paneled or decorated jambs and moldings, and interior and exterior shutters, are individually and collectively important elements of the building's overall design. Much like building height, the continuity of window patterns creates a visual rhythm along the street. Inappropriate alterations or replacements are intrusions that can compromise the integrity of a building, its row, the entire street, and the historic district.

Yet windows are among the most vulnerable features of historic buildings. Age, weathering, and inadequate maintenance all contribute to their deterioration. Damaged windows can be drafty and difficult to operate, prompting their premature replacement or alteration on the mistaken assumption that they are beyond repair. Simple yet effective maintenance, repair, and retrofitting measures will save both money and the building's historic fabric.

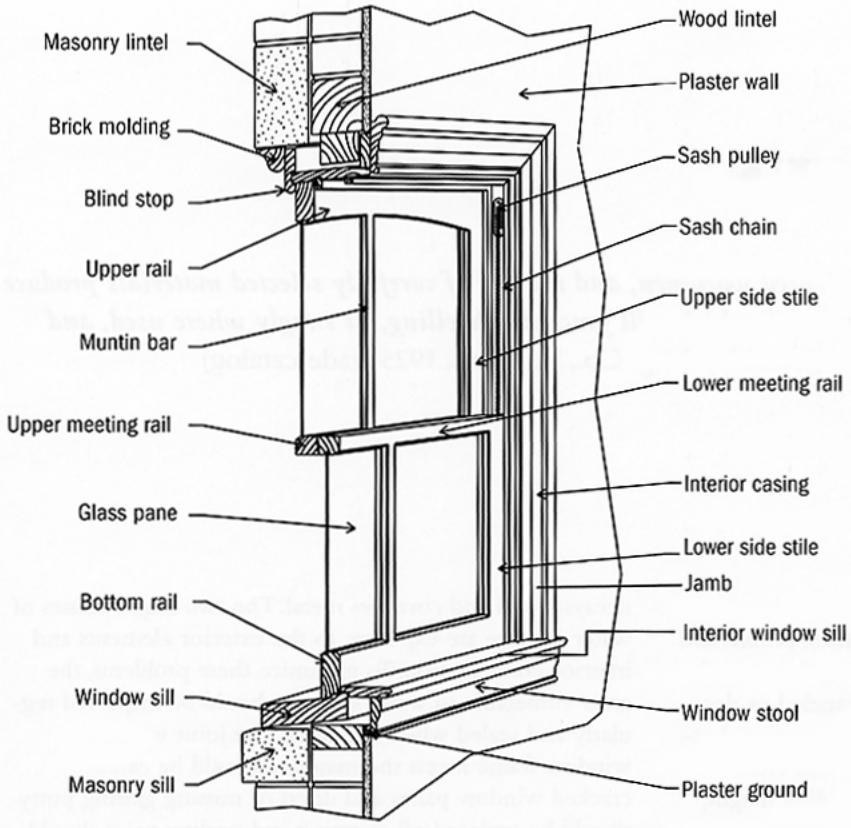
Nevertheless, many windows in the Rittenhouse Fitler Historic District have been replaced over the years, often with inappropriate substitutes. Many houses, for example, were fitted with multi-light windows to "colonialize" their appearance. Studying neighboring buildings for clues to the original windows' appearance can be misleading; if replacements are contemplated, better to consult with the Philadelphia Historical Commission staff.

Routine Maintenance

Windows that seem beyond repair often require only basic maintenance and repairs to reestablish their smooth operation and improve their energy efficiency. Deterioration of windows is primarily caused by the effects of water, which decays wood and corrodes metal. The two major causes of water damage are exposure to the exterior elements and interior condensation. To minimize these problems, the areas vulnerable to water seepage should be inspected regularly and sealed when necessary. The joint where the window frame meets the masonry should be caulked, cracked window panes and dried or missing glazing putty should be replaced, all chipping and peeling paint should be removed, and the window primed and repainted. Bare wood and metal are particularly susceptible to decay and should never be left exposed to the elements.

Photo: George E. Thomas.

The continuity of window patterns creates a visual rhythm along the street.



Cross-section of typical double-hung window; view from interior. Illustration: Seaquay Architectural Millwork Corporation.

Over time, old windows can become difficult to operate due to excessive paint build-up or broken operating mechanisms. Paint can best be removed by the careful scraping or stripping of the paint with a chemical paint remover or heat gun. Paint removal can be hazardous; be sure to follow all safety precautions. While heat guns are effective at removing old paint, their improper use by an inexperienced operator may result in the scorching of wooden elements and can also be a fire hazard. Use the heat gun on the sill, stops, parting beads, and window trim. Chemical paint stripper should be used on the sash since the glass will break if heated. Take care to follow safe lead paint removal procedures, and the manufacturer's recommendations for the safe use of chemical strippers.

Windows that bind, have become inoperable, or will not remain open may require repairs to the operating system. On most double-hung windows with a counterweight-and-pulley system, an experienced do-it-yourselfer can attend to these problems by removing the interior trim and jamb or the jamb access panel to examine the pulley and rope system. First, examine the condition of the pulley. If it is coated with layers of paint, tie off the sash cord, remove the pulley, strip the paint layers, lubricate the pulley, and reinstall it in the jamb. If the pulley is too damaged, replace it with a new matching element. The other potential problem is a broken and/or damaged pulley, sash cord, or chain. Either stripping the chain of interfering paint layers or replacing the sash cord or chain with a new element will reestablish the smooth operation of the sash. Metal casement windows, found on some buildings in the historic district, are most often damaged when they are allowed to flap about in high winds. The problem can be avoided by keeping locking systems, hinges, and other hardware maintained and lubricated.

Storm Windows and Weather Stripping

A variety of cost-effective options exist to improve the energy efficiency of historic windows. In addition to replacing caulk and glazing putty, weather stripping can be applied around sash and frames and at the meeting rails of windows to prevent drafts. Weather stripping is one of the least expensive means of improving energy efficiency, yet it can increase energy performance by as much as 50 percent.

Storm windows insulate against noise and drafts, and exterior storms protect windows from weathering. Exterior storm windows, however, can have a detrimental visual impact on the architectural integrity of a building. Depending on their design and color, exterior storm windows can be obtrusive and unsightly and can cause reflections which obscure the configuration and detail of the historic windows. Modern aluminum triple-tracks should be installed on secondary facades only and should fit tightly within the window openings, without the need for panning (or fillers) around the perimeter, and should be set as far back as possible from the exterior wall plane. The meeting rails and stiles of the storm must align with those of the historic window and the

color should match the color of the window frame.

Interior storm windows are much preferred, especially on primary facades. A variety of interior storm windows are available ranging from the interior version of a traditional triple-track unit to a single sheet of clear glazing applied within the window jamb.

Any decorative window, such as stained or leaded glass, should be fitted with an interior storm only, so as not to obscure the significant detailing. If a decorative window requires more protection, contact the Historical Commission for suggestions. An arched window, or a window that does not have a centered meeting rail, should also be fitted with an interior storm, unless a custom storm can be manufactured to match the meeting rail or arched configuration.

Other options, such as the installation of thermal glass into existing windows, may also be available to preserve old windows while increasing their energy efficiency.

Repair or Replace?

Seriously deteriorated windows require careful evaluation to determine whether repairs are possible. The integrity of historic wood windows can generally be assessed through a few simple steps. Deciding the overall stability of metal windows is much more complex and typically requires the attention of an experienced professional.

One simple test to determine the structural integrity of the window is to prod the various frame and sash elements with a sharp probe or tool, such as an ice pick. If the probe easily penetrates the wood or the surface of the metal, and brittle strands of metal can be dug out, then the element is beyond traditional repair.

Even then, wholesale replacement may not be required. In many instances, the replacement of several elements may be possible. Intact elements should always be repaired, restored, and reused. Almost always, only the sash needs replacement and the frames and sills can be simply repaired using traditional methods.

Corrosion of metal windows typically starts along the sill, rail, and the lower extremities of the stiles. Corrosion swells the metal, making it difficult to operate the window. In extreme situations, the corrosion spreads beyond the lower extremities and leads to bowing, bending, and misalignment of whole metal sections. In addition, the glass and glazing compound typically warrant repair and/or replacement. As with wood, only sections of the metal windows usually require replacement with new matching sections, and wherever possible, original elements should be repaired rather than replaced.

Methods of Repair

Wood windows that exhibit surface deterioration, but appear to be sound upon testing with a probe, can be repaired in a cost-effective manner by treatment with an epoxy consolidant, with replacement limited only to those sections that exhibit severe deterioration.

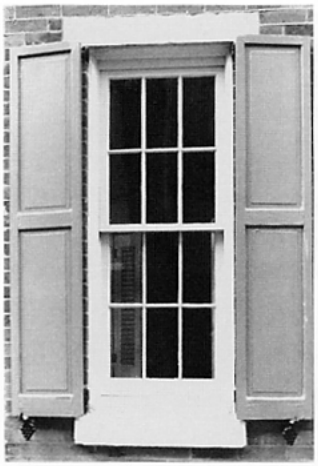
Wood consolidants are syrupy liquids that, when brushed onto decayed wood, permeate the wood's surface, restoring its strength. Splits, minor holes, gaps, and other damaged areas are then filled with epoxy paste which, when cured, has similar characteristics and flexibility to wood, and can be worked with ordinary woodworking tools and painted.

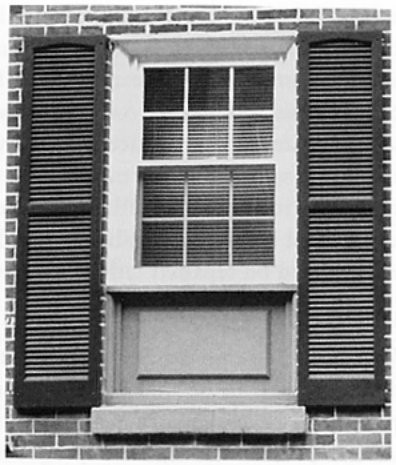
If the deterioration is more substantial (particularly in the sill area), but is limited only to a section of the wooden element, the damaged area can be removed, squared-out and a "dutchman" patch installed.

The repair of metal windows is usually more complex and requires the expertise of a professional. The typical repair process includes scraping and wire brushing deteriorated paint and loose corrosion layers, patching depressions in the metal with epoxy fillers with a high content of steel fibers, splicing in new matching metal sections as necessary, and aligning bent and bowed sections. Hinges and other hardware should be cleaned, lubricated, or replaced as required to reestablish the operation of the window. Metal windows should be primed with an anti-corrosive primer as soon as they are exposed to the exterior elements. At least two coats of a finish paint compatible with the primer should be applied to the metal surface.

Replacement Guidelines

Repair and retrofitting of historic windows are always preferable to replacement. Replacement of original windows should be considered only as a last resort and is justified only when the





Photos: J. Randall Cotton.

Left, preserve wooden windows and shutters. Right, an unsightly window replacement.

severity and extent of deterioration warrants. If replacement window sash and frames are installed on primary or highly visible facades, they should match the original in materials, operation, configuration (the pattern or organization of glass panes), profile, and detail. Matching historic windows maintains the historic character of the building and helps retain the sense of scale and rhythm of the historic district.

In undertaking the replacement of windows, always seek the advice and review of the Philadelphia Historical Commission. The staff will help you determine the correct configuration of the window, based on historical photographs, pictures, surveys, and other documents, and has numerous samples to show you.

Vinyl windows with snap-in muntins are not approved by the Historical Commission. If multi-pane windows are appropriate, they should be "true divided lights" in which the wooden muntin holds each pane of glass in place.

If possible, keep the original window frames and replace the sash only. If the frame must be replaced, the Historical Commission requires that the dimensions and profiles match the original. Any existing exterior shutter hardware must be reinstalled, sometimes necessitating that the outside frame be cut. The Historical Commission recommends, but does not require, that counterweight-and-pulley systems on double-hung windows be retained, especially on large, heavy windows.

On secondary and rear facades not readily visible from the street, replacements should match the original in size, configuration, and operation, but an alternative material may be acceptable. In all instances, the use of snap-in muntins and panning (covering the window frames and moldings) is inappropriate.

Repair is generally more cost-effective than replacement and, when accompanied by routine maintenance procedures, ensures the preservation of one of a building's most distinguishing features.

Security Bars or Grilles

Metal window bars or grilles are typically found on basement windows and were often installed at the time of construction to provide added security. Many of these original bars or grilles have elaborate designs and are an important component of the building's facade. These decorative grilles may also be found on floor-length parlor windows in Italianate buildings and in a balcony form in the later Beaux-Arts style buildings. Original window grilles should always be maintained rather than replaced. If replacement is necessary, however, the new grilles should match the original grilles, and should be installed without damaging the window frame or masonry.

Photos: J. Randall Cotton.

Original basement window grilles are part of the building's design; inappropriate alterations are jarring.

The installation of modern security bars or grilles on windows that would not have originally contained such features is generally discouraged, and the use of alternative security measures should be explored.

Awnings and Exterior Shutters

Shutters were of great importance to certain styles of historic architecture, providing security and a means of controlling light and heat. The replacement of missing shutters is encouraged,

as is the preservation and restoration of existing original shutters. Where replacement is necessary, the new shutters should match the originals or shutters found on stylistically similar buildings. The new shutters should be made operable, or at the very least, must appear to be operable, and completely fill the window opening when closed. In addition, the shutters must contain the appropriate hardware such as hinges, shutter dogs, and latches. Fortunately on most historic buildings that had shutters, the shutter pintles are often in place, simplifying installation of new shutters.

Fixed aluminum window awnings are not appropriate for any historic dwelling.

by Robert Powers and Cynthia Rose, Powers & Company, Inc.

Not Subject to Philadelphia Historical Commission Approval	**Subject to Philadelphia Historical Commission Approval**
Caulking	Installing new sash or frames
Weather stripping	Installing exterior storm windows
Reglazing	Installing or removing exterior shutters
Replacing original window materials (minimal)	Installing window awnings
Repairing suspension systems (pulleys, chains, ropes)	Installing or removing exterior security bars or grilles
Repairing or replacing window hardware	Altering the size, shape, or design of a window opening
Installing most interior storm windows	Blocking up existing window openings or constructing new openings
Installing interior security bars or grilles	Restoring original window openings
Installing regulation child guards	Replacing original window materials (extensive)
Painting	

Doorways

Few features of a house are more noticeable than its entrance. It seems to introduce us to its life and spirit. It may wear the plain word "Welcome!" all over its generous proportions and its genial aspect, or it may impress us as cold and forbidding. (*Philadelphia Real Estate Record and Builders' Guide,* March 21, 1887)

The doorways in the Rittenhouse Fitler Historic District reveal much about their original builders and owners. The elaborate entries of Spruce Street and Delancey Place signal wealth and opulence; the simple doorways on Rodman and Panama Streets reflect modest origins. Yet even on the plainest dwelling, some attention to detail was usually lavished on the doorway, one of the main stylistic elements of a building. Like windows, however, many doors in the district are not original.

Maintenance and Repair

Doors deteriorate because of exposure to weather, flaws in construction, and the enormous wear they endure. Although exterior doors are installed so that they are somewhat protected from the elements, over time wood doors are subject to wear and rot. Fortunately, wood is easily maintained and repaired, and a properly maintained wood door will last for generations.

Regular painting is essential, not only for appearance, but structural stability as well. Paint creates a hard, protective coating that sheds water and protects the wood from moisture and rot. Occasionally paint needs to be removed, since too many layers weaken the adherence of the paint to the surface and hide carved or molded detail. Too much paint can also result in unattractive paint build-up at the joint where the panels meet the frame, which should be kept free-moving to allow for natural expansion and contraction of the wood.

Damage or rot to wood doors is relatively easily to repair. Dents, checks, and surface marks can be fixed with glue, plastic wood, small wood shims, and household tools. Stiles and rails can be matched by experienced mills and new panels and moldings can be made to replace missing and damaged parts.

Rotting areas of the frame, often at the door's bottom where the end grain has absorbed water, can be consolidated with epoxy resins, and missing areas can be reconstituted and molded out of epoxy paste fillers. Or, a replacement piece of wood can be mortised in place by an experienced carpenter. Such "dutchman" patches are also useful when locksets or hinges are changed and the mortises of the former hardware exposed.

If an original door must be replaced, the new door should match the original design, material, and configuration. If the original door is missing, appropriate replacements can sometimes be determined by examining neighboring or similar buildings, by looking at historic photographs, pictures, and surveys, and in consultation with the staff of the Philadelphia Historical Commission.

Photos: J. Randall Cotton.

The doorway of a historic building is an artistic ensemble that should be preserved.

Door Surrounds

The woodwork, moldings, and ornamental masonry that surround a door are all part of the architectural design and character of the building. For the most part, the simple, brick rowhouse dwellings in the Rittenhouse Fitler neighborhood had plain brick reveals at the door, with some molded wood casings, and simple lintels and sills. More expensive dwellings had elaborate entranceways that included paneled wood reveals, carved moldings of masonry or wood, or perhaps a carved wooden hood.

This artistic ensemble should be preserved and restored. Removal of eroded or rotted elements or of the entire surround, or sheathing it in another material, are usually inappropriate. So is adding an architectural element that was never there or is the wrong style. A colonial-style, split pediment added to a Victorian rowhouse, for example, confuses the style and meaning of the architecture. If you suspect that a more modern piece has been added to the original doorway, contact the Philadelphia Historical Commission about its possible removal and replacement with something more appropriate.

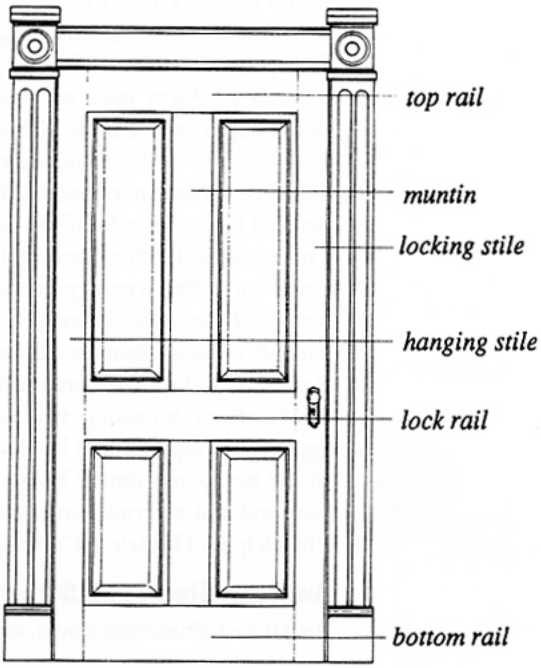
The exposed elements surrounding historic doorways often deteriorate over time, but their restoration is not a do-it-yourself job. Stone ornamentation can be restored using masonry consolidants such as silanes, acrylics, and epoxies that penetrate the pores of the stone, making it stronger and resistant to further deterioration. Missing masonry elements can be replaced with molded cement-based patches. (See the Masonry chapter for more details.) Similarly, rotted wood elements can be treated with wood epoxy consolidants that permeate porous or decayed wood. Gaps in the wood can be filled with epoxy paste which, when dried, has characteristics similar to wood and can be worked with ordinary tools, primed, painted, or varnished. Almost all of these repairs will require the skills of experienced restoration masons or carpenters and prior approval of the Historical Commission.

Door Types and Configurations

Doors come in a variety of types, sizes, and configurations. The single-leaf door is the most common, but double-leaf doors are characteristic of some late 19th-century architectural styles. Doors and door surrounds may be flat, round, or shaped in a segmental or even pointed arch. In the 19th century, sidelights and transoms were commonly used to admit light and air into the entry hall. The number of leaves, shape, sidelights, transom, millwork, and accessories all constitute the doorway's configuration, which should be preserved.

Blocking up or altering transoms and sidelights, reducing, enlarging, or blocking up door openings, or cutting new openings where none previously existed all destroy the appearance of a historic building and jeopardize its physical integrity.

In many cases, however, the original door has already been replaced. Contact the Philadelphia Historical Commission when you wish to change the door for guidance in choosing an appropriate design.



Old-House Dictionary

How a door is constructed.

Door Construction

Most doors in historic structures are made of stiles (the vertical elements) and rails (the crosspieces), a centuries-old construction method in which finished and ornamental wood planks are assembled, usually with strong mortise-and-tenon joints. Most historic doors conform to this basic type, whether they are flat, paneled, or ornate, deeply molded, double-leaf doors with glass.

Paneled doors consist of a frame of solid wood parts filled in by wood or glass panels. The rails are mortised into the outside stiles, then wedged and glued. The panels are held in place in grooves in the inner edges of the frame or by moldings fastened to the frame. Wood panels should not be glued in place; they need to move freely within the frame to allow for normal wood shrinkage and swelling.

Unused Entrances

Sometimes, an entrance to a house is no longer used. This is especially true of former corner stores, where there may be an angled corner shop entrance and a family entrance down the side street. If one of the entrances is no longer in use, the door should be left in place and fixed shut. This will preserve the character, proportion, and detail of the original design and be reversible if a future owner chooses to reopen the door.

Hardware

The style of the hardware on a door should be compatible with the age and style of the door and dwelling. Generally, residences have simple round or oval knobs made of easily cleaned materials like brass, bronze, or glass. A plain, four-panel door should have a plain brass knob or latch set. More intricate, raised, six-panel doors might have a more elaborately decorated, but classically derived knob and plate. A Victorian house may have hardware that is derived from the style of the dwelling, whether Queen Anne, Gothic Revival, Italianate, etc. Some early 20th-century houses had wrought iron hardware reminiscent of the work of early English artisans. Stainless steel came into use on Art Deco and modern architecture. If the original hardware is missing, you can determine an appropriate replacement by looking at the style of the house and similar houses in the neighborhood and by consulting with the Philadelphia Historical Commission.

Awnings, Storm and Screen Doors

Prepainted aluminum doors, especially those with added scalloped and "colonial" ornament, are not appropriate on the houses in the Rittenhouse Fitler Historic District. Drafty transoms and sidelights can be protected with fixed glass or polycarbonate panels discreetly inserted on the inside of the existing wood door reveal. Consider weather stripping as an alternative.

Fixed aluminum awnings are not appropriate for any historic dwelling.

Lighting and Electrical Devices

Many houses in the Rittenhouse Fitler Historic District were built before the advent of electricity and never had exterior lights, door bells, electric door openers, or intercom systems. In the modern city, however, these items have become necessities to improve security in the home and safety on the street.

Generally, these devices should be as simple and unobtrusive as possible and wiring should be run inside the building. Occasionally, a late-19th or early 20th-century lamp survives on a house and should be retained. Otherwise, exterior lighting should be appropriate to the style of the building, or as inconspicuous as possible. A simple, modern light fixture is a better choice than an overly elaborate or inappropriate reproduction such as a colonial-style carriage lamp on a Victorian house. If the door has a deep, wood reveal, a small, plain, recessed light hidden above the door is preferred. Doorbells and intercom boxes should be small and recessed into the casing or wood reveal to the side of the door.

By Charles A. Evers, AIA, Atkin, Olshin, Lawson-Bell and Associates Architects

Not Subject to Philadelphia Historical Commission Approval	**Subject to Philadelphia Historical Commission Approval**
Painting wood elements	Installing exterior lighting, intercoms, door bells
Sanding or refinishing	Installing new doors, storm doors, or door frames
Repairing wood door and frame	Installing security grilles or bars
Replacing or installing new locks	Replacing solid panels with transparent materials
Replacing broken glass	Replacing transparent materials with solid materials
Weather stripping	Altering door frame or surround
	Altering door configuration (size, number of doors, transoms, or glazing) or material

Photo: Bernie Cleff.

Stoops, Railings, Paving, and All The Rest

Wood & Perot Ornamental Iron Works. 1136 Ridge Avenue, Philadelphia. Manufacturers of Iron Railings for Cemetery Enclosures, Public Squares, Churches and Private Residences, Iron Verandahs, Balconies, Bank Counters, Stairs (in every variety), Mausoleums or Tombs, Chairs, Settees, Tables, Tree Boxes, Hitching Posts, Lamp Posts, Brackets, Statuary and all other Iron Work of a decorative character. Drawings furnished to those who wish to make selections. (*Philadelphia and Its Manufactures,* 1858)

Miscellaneous building and site elements — sidewalks, stoops, railings, boot scrapers, mounting blocks, etc. — are easy to overlook, but play an important role in creating the character of the Rittenhouse Fitler Historic District. These significant details establish a relationship between the building and the street, and contribute to the overall streetscape.

Sidewalks

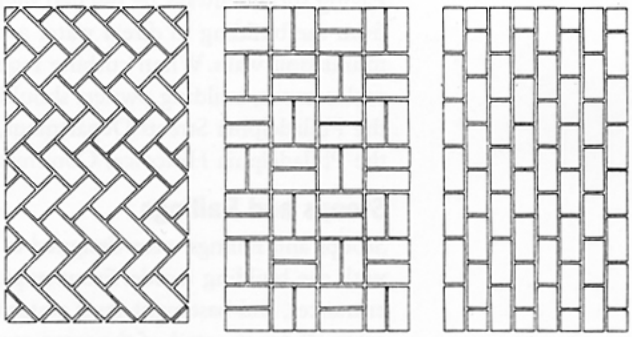
Most of the historic sidewalks in the district are made of brick pavers or large pieces of granite or bluestone. You may see a long depression across the stone; this would have channeled rain runoff from a downspout to the street.

Granite was historically used for curbing, and is still used for this purpose today because of its durability. **Bluestone,** although more fragile, is also a historic curbing material. The most common replacement for these original materials is concrete, which, while initially less expensive, is not as durable as other paving materials. Nor does concrete have the character and texture of historic paving materials.

Historic sidewalk paving may require repair if there are cracks, sunken, or raised areas which make the walkway hazardous to pedestrians. Repair by removal and reinstallation of original materials is recommended because it retains the actual historic fabric of the sidewalks. Damaged or missing pavers should be replaced with new or salvaged material that matches the original.

Brick paving may be installed with or without mortar joints. Mortar is the binding material in the joints between the bricks, as you would see on a brick building wall. Mortared brick paving requires that the bricks be set on a stable base, such as a concrete slab. Separating bricks from mortar for reuse can be difficult. A qualified contractor may be able to remove the mortar.

Many brick sidewalks are mortarless, or "dry laid." This makes removing the pavers, reestablishing the base (or bed), and resetting the pavers easier, and better accommodates thermal movement. In a mortarless installation, the bed should consist of six inches of gravel with three inches of sand or soil on top. The pavers are then set as close together as possible, and sand or a sand/cement mixture is brushed into the joints.



Hugh J. McCauley, AIA

Brick paving patterns, all more appropriate than concrete.

Bluestone slabs that have shifted out of place can also be removed and reset with care. Missing pieces can be replaced with new bluestone, at least 1 1/2-inches thick. If it is necessary to fill in small gaps in the bluestone walkway, use cement tinted to match the bluestone. The surface of the cement should be scored where joints between stones would occur.

Photos: J. Randall Cotton.

Masonry steps should be maintained to prevent the damaging effects of water penetration and subsequent freezing and thawing.

Paving should always be pitched slightly away from the building to direct water away from foundation walls. When curbing requires replacement, building owners should contact the Philadelphia Streets Department, along with the Philadelphia Historical Commission.

Stoops and Railings

Stoops and railings were designed to harmonize with the building facade. Front steps, cellar entrances, and basement-level water tables are often all constructed of the same material. Railings may exhibit patterns and shapes associated with the style of the building.

Stoops in the historic district, and their side (or cheek) walls, are constructed of various masonry materials, most commonly marble, brownstone, and brick. As with all masonry surfaces, painting is not recommended. Paint can trap moisture in the masonry, which can lead to deterioration. Painted masonry will also have to be repainted periodically. If, however, the masonry steps have previously been painted, seek guidance from the Philadelphia Historical Commission on repainting with an appropriate color or gentle paint removal. (For more details, see the Masonry chapter.)

Joints on steps should always be mortared to prevent moisture from getting behind the stones where it may freeze and expand, upsetting the stones. Masonry steps can be taken apart and reassembled if they have shifted dangerously out of position, although additional structural support may also be required. When replacing mortar (repointing), use a mortar made with lime, sand, and cement. Most modern mortars made only with Portland cement are too hard and may damage the masonry. Adding lime gives the mortar necessary flexibility. (For more details, see the chapter on Masonry.)

Historic stair railings, boot scrapers, and bollards are made of wrought or cast iron. Wrought iron is shaped by beating or hammering; cast iron is formed by casting, or pouring molten metal into a mold. The different processes result in different characteristics. Wrought iron can be welded and wrought into delicate, often curvilinear shapes; it tends to be lighter in appearance. A cast iron railing is constructed of separately cast pieces bolted together (large pieces are usually hollow); it generally tends to be more weighty in appearance.

Steps often crack at the point where a railing post is set into the surface of the tread (the part you step on). Rainwater ponding on the masonry surface at the railing bases causes the metal to rust and expand, exerting pressure on the surrounding masonry and causing it to crack and become dislodged. To prevent this, the post base should be set into the masonry using a soft material or a stainless steel sleeve. Traditionally, lead was used for this purpose; sealants are more commonly used today. Filling the joint with cement is discouraged because it does not have the flexibility required to hold up under normal thermal expansion and contraction.

Rusting, caused by moisture on bare metal, is the primary cause of iron deterioration. Keeping your cast or wrought iron railing painted is a simple and effective way to preserve it. Rust can be removed by hand scraping and wire brushing. This should be followed immediately with the application of a rust-inhibiting primer and a compatible finish coat. Small voids may be repaired with plumbing epoxy or auto body putty; be sure to maintain the original profile of the metal. Loose connections in cast iron assemblies may be repaired by replacing screws and bolts with new stainless steel ones.

by Suzanna Barucco, Martin Jay Rosenblum, RA & Associates

Not Subject to Philadelphia Historical Commission Approval
Minor sidewalk repairs
Repairing railings (e.g. replacing worn or missing fasteners)
Painting railings, boot scrapers, mounting blocks, bollards, etc.

Subject to Philadelphia Historical Commission Approval
Repointing masonry steps
Painting masonry steps (whether previously painted or not)
Removing paint or cleaning masonry steps
Repaving a sidewalk with new materials
Major sidewalk repairs
Replacing curbing
Replacing steps or railings
Removing boot scrapers, mounting blocks, bollards, etc.

Storefronts

The retailer, recognizing the general interest of the public in things artistic, especially those things of an architectural nature, realized that a shop possessing architectural value and decorative interest, both inside and out, would appeal to his prospective customers and increase business by luring them into his store. (*American Commercial Buildings of Today,* 1928)

Susceptible to ever-changing commercial tastes, storefronts pose special considerations for owners of historic buildings, but their sensitive preservation contributes to both the retail atmosphere and the integrity of the historic district.

The Rittenhouse Fitler Historic District was built primarily as housing, and most of the storefronts found in the neighborhood today result from the conversion of residential rowhouses to commercial use during the 20th century. Storefronts were added to buildings on whole blocks of Walnut Street and many of the numbered streets to the north and south to create what is today a major shopping area for Philadelphia within the historic district.

Photo: J. Randall Cotton.

An elegant Art Deco storefront, worthy of preservation even though it is not original to its Victorian building.

Earlier storefronts, original to the late 19th-century construction of their buildings, are scattered throughout the district. On those streets that have remained residential in the southern and western portions of the district, storefronts are most often found at the intersections of streets and alleys.

Late-19th and early 20th-century storefronts are generally characterized by large plate glass windows, supported by cast iron columns and piers. Wooden components include decorative cornices, paneled bulkheads below the display windows, and doors. Modern materials such as pigmented structural glass, baked enamel panels, ceramics, and stainless steel made possible the sleek streamlined storefronts of the 1930s and 1940s.

Even though most storefronts in the historic district do not date from the building's original construction, and may differ in style from the earlier building, they reflect an important aspect of neighborhood history and are worthy of preservation in their own right. The more rare original storefronts are an important part of the architecture of their buildings and should be maintained and preserved.

Maintenance of Historic Storefronts

Storefronts are susceptible to deterioration, primarily because of water infiltration and weathering. Water penetration behind the storefront, possibly into the supporting building, can cause unseen damage.

The primary areas of concern include the storefront's cornice, which requires proper flashing and water conduction, and the joints between components. (For more information, see the chapter on Roofs, Cornices, and Related Elements.) On wooden storefronts, moldings traditionally are used to cover joints. Seams and joints in storefronts made of metal and other materials should be sealed with caulk. Regular painting will help protect wooden elements from water infiltration and rot, and will prevent metal components from rusting.

Alteration, Rehabilitation, or Restoration of Storefronts

Historic storefronts should be retained, repaired, or restored with matching materials. An existing storefront may not appear to be historically significant, but it may be hiding historic fabric underneath later alterations. Consult the Philadelphia Historical Commission staff before making changes.

The Historical Commission encourages the repair of early storefront features and the incorporation of any remaining fragments into new design. Restoration to an earlier period — even to the building's original appearance — is not appropriate.

If the historic storefront is completely obliterated, as many have been over the years, the new storefront should approximate the original configuration, based on photographs or other historical evidence. Again, consult the Historical Commission. In the absence of solid evidence, simple generic storefront features are recommended. As with all new design in the historic district, these storefronts should be compatible with the building and streetscape in scale and proportion, materials and finishes, configuration, sill and cornice heights, etc.

If a building with a historic storefront is being returned to residential use, the storefront is considered a significant alteration to the building and should be retained. Contact the Historical Commission for options regarding privacy and security.

Signs and Awnings

All signs and awnings in the historic district — including banners — require the approval of the Historical Commission. The only exception may be temporary real estate signs.

The size, shape, design, material, location, and method of attachment of commercial signs have a large impact on historic storefronts. Signs should be to scale with the building and storefront and should be placed within the historic "signboard" area — the fascia between the storefront and the second floor. Signs must not obscure, damage, or destroy any of the character-defining features of the building. Backlit or illuminated plastic box signs are not allowed.

Signs and awnings may also require the approval of the Art and Zoning commissions.

Photo: J. Randall Cotton.

A well-maintained c. 1880 storefront.

Security Grilles and Bars

Every attempt should be made to situate security grilles and bars in the interior of the storefront, behind the glass. Open, see-through grilles are preferred to solid metal screens which not only obscure the storefront, but pose security and safety risks. The Historical Commission generally recommends that the grille housing also be located on the interior, unless such placement would damage historic fabric.

by Sara Jane Elk

Not Subject to Philadelphia Historical Commission Approval
Painting wood or previously painted metal components

Subject to Philadelphia Historical Commission Approval
Painting masonry
Installing awnings
Removing, replacing, or altering storefronts
Installing security gates
Installing or replacing signage

New Construction

Visitors from out of town are wont to sigh with rapture when they see our trim blocks of tall brick buildings — that even cornice running in a smooth line for several hundred yards really is quite a sight — and exclaim, "Oh, I wish we had something like this in New York!" ("Pine Street," by Christopher Morley, *Pipefuls,* 1921)

The Rittenhouse Fitler Historic District is one of the most intact historic districts in the country, with a remarkably high number of important buildings and relatively few open lots. Opportunities for new construction are limited; most building involves rear additions, the replacement of the few structures that do not contribute to the district, and the building out of the few empty lots. New construction in the district is subject to the review and comment of the Philadelphia Historical Commission, whose advice, while not binding, will help insure the integrity of the historic district.

Any new construction in the district should not obscure, damage, or destroy the character-defining features of existing historic buildings. Additions to historic buildings should not exactly duplicate the design in an attempt to achieve a seamless effect. Instead, the new addition should be designed so that it is clear what is historic and what is new. Good architecture is of its time; better for new construction to reflect our time than to give a false historical impression.

At the same time, all new construction should be compatible with the size, scale, color, material, and character of the property and neighborhood.

An experienced design professional can help meet your needs with a design that is compatible with the historic district. And the staff of the Philadelphia Historical Commission is available for advice and consultation.

Where to Begin?

The predominant feature of the Rittenhouse Fitler Historic District is the rowhouse. Rowhouses create a consistent street facade and provide many starting points for your new design, including setback, materials, overall height, and the spacing and scale of window and door openings.

As you think about your new building or addition, take a careful look at the adjacent buildings as well as others throughout the district. Note the materials used, almost always some form of masonry: brick, stucco, brownstone, or limestone. Look at special features, such as bay windows, dormers, the number of window panes, and style of windows.

Note how most streets in the district are consistent in scale and materials, whether the buildings were built as a single design, or added gradually over time. This notion of taking design cues from the surroundings is the goal for sensitive new construction in the district.

Design Considerations

Height Even though building heights vary considerably along some streets, most builders in the past put up structures similar in height to adjacent structures. The consistency of the height of adjacent rowhouses will help dictate the height of your new construction. In the Rittenhouse Fitler Historic District, consistency of building height, typically three or four stories, is one of the strongest design guides for new construction. Zoning also plays a major role in dictating building heights and massing.

Materials Brick is the most common building material found in the district. Most brick is typically a rich reddish-brown in color, although some 20th-century buildings use other colors. Try to use brick that is similar in color to that found in adjacent buildings.

Also consider the variety of materials in adjacent buildings. Some may have stringcourses of limestone or marble

veneer on the first floor. These can be matched in new materials. While stone is desirable, carefully detailed stucco can be made to match brownstone or other stone — although it will not have the longevity of natural stone.

Street Wall and Cornice Line

A uniform setback of the buildings as they line the street creates the "street wall" and is essential to preserving the character of the district. New construction should respect the street wall created by its neighbors. So should the cornice line, which is a predominant feature of most Philadelphia rowhouses.

Rhythm of Building Openings

Windows and doors establish a rhythm for the street and any new construction should be harmonious. Windows should be of similar size and overall placement as adjacent buildings. Remember that most historic windows are tall and narrow. Particularly important is matching the window sill and head heights to the adjacent buildings. Sympathic new construction can only add to the richness and vitality of the historic district.

by Michael Stern, Preservation Alliance for Greater Philadelphia

Photo: George E. Thomas.

Good architectural design in the historic district respects its neighbors. Although dating from the 1930s, this rowhouse facade maintains the cornice line, overall height, and window placement of the adjacent rowhouses.

Recommended:

Alignment with adjacent building height and cornice line
Alignment with adjacent window sills and heads
Materials similar to adjacent buildings
Similarity in roof profile
Doorway design, dormers, and bay windows can differ in design, if not overall scale, from adjacent buildings

Not Recommended:

No alignment with adjacent building height and cornice line; some variety is okay
Window height size and design radically different from adjacent buildings
Use of materials not found in adjacent buildings or neighborhood
Dissimilar roof profile and design

Selecting and Working with Building Professionals

The attention of builders and architects and others has been closely devoted to supplying materials for buildings that would add to beauty, cheapness and durability. (*Philadelphia Real Estate Record and Builders' Guide,* August 16, 1886)

Many home maintenance and even routine repairs lie within the capabilities of the typical old house owner. There are instances, however, when professional help is advisable.

Some of the areas in which building professionals can prove invaluable are the assessment and correction of structural problems (why is a wall bulging?); the assessment, specification, and correction of major repairs (the replacement of a roof, for example); and the design and specification of additions or alterations to ensure that they meet the preservation requirements of the Philadelphia Historical Commission.

Three types of building professionals can be of help: architects, engineers, and contractors who specialize in working with historic buildings and are familiar with Philadelphia's regulatory scheme.

Working with Architects and Engineers

Architects and engineers can diagnose problems and prescribe remedies. Don't presume that using their services represents an added expense; an architect or engineer can supply a wealth of advice for what may be a minimal consulting fee. An architect can guide you through the entire design and construction process — from helping define what you want to build, to helping get the most for the construction dollar, all the while preserving the historic integrity of the building. Many architects specialize in preservation-related work. An engineer is more typically retained to address structural, mechanical, or electrical problems.

Architects and engineers can:

Help clarify and refine building needs by providing an overall assessment of a building's condition, or an assessment of a specific problem, including structural issues, deterioration of materials, or electrical or mechanical systems. Through a process called programming, you and your architect discuss your requirements, needs, and budget. The architect then helps define what is to be built and establishes the project's scope. The architect can write contract documents and specifications (instructions to contractors) for repair projects, and can also design a sensitive addition or alteration to your historic house.

Maximize your construction dollar. The architect and engineer can help you select appropriate materials, workmanship, and systems at a fair price, and can help you avoid unnecessary or inappropriate work and costly mistakes. For example, an architect may advise on how to save money by repairing, rather than replacing, an old slate roof. By producing contract documents for competitive bidding, the architect helps ensure that contractors are bidding on identical work, potentially controlling construction costs.

Manage the project. From conception to completion, the architect protects your interests and pursues ways to make the design and construction process go smoothly. The architect can help you find qualified contractors based on your requirements. During construction, the architect visits the site to verify that the project is being built according to the plans and specifications you approve. In addition, if your project requires engineering or other special services, the architect can coordinate this team of experts. The architect also sorts out complex building codes, zoning laws, and historic district regulations and helps ensure that you get all necessary permits and are in compliance.

If you are contemplating a project that may involve an architect, consider seeking architectural consultation early

in the process. Many architects are willing to meet with you initially without obligation or cost. Consultations with two or three architects will provide you with an understanding of what can be expected from different architects and will help ensure a satisfactory match. Choose an architect with both experience with, and appreciation of, historic buildings. Request that a prospective architect supply references for similar projects that he/she has done, and check these references.

Where to find an appropriate architect? Referrals can be given by AIA Philadelphia's Architects Resource and Referral Center, which offers information about architectural firms and examples of their work according to numerous project categories (215-569-3186). Another good source is neighbors in the historic district who have retained architects for their projects.

Working with Contractors

Contractors carry out the actual repair or rehabilitation work, or construct additions. During the planning stages, they can also advise on alternative methods of construction or ways to control construction costs.

In general, except for routine work, contractors do not provide design services; this is a role for an architect. The homeowner — with the assistance of an architect or other building professional — should define the exact scope and nature of construction work through plans and specifications, rather than have a contractor define the work. This assures objectivity and cost control.

A general contractor manages larger projects which will use various subcontractors or specialty building trades. If the project is limited in scope or involves primarily one building trade (for example, painting), a general contractor is probably not required. In addition, keep these pointers in mind when selecting contractors:

Choose only contractors experienced with the special needs of older houses and historic properties. Obtain referrals from your architect, the Philadelphia Historical Commission, the Preservation Alliance for Greater Philadelphia, other homeowners in the historic district, or published resource guides. The Historical Commission also has product information. Referrals by these organizations do not constitute endorsement.

Ask for references for several recent projects that are similar to yours. If possible, try to make arrangements to see these projects, and check these references for quality of work, attention to the historic fabric of the building, finishing on budget and on time, and willingness to work with the homeowner.

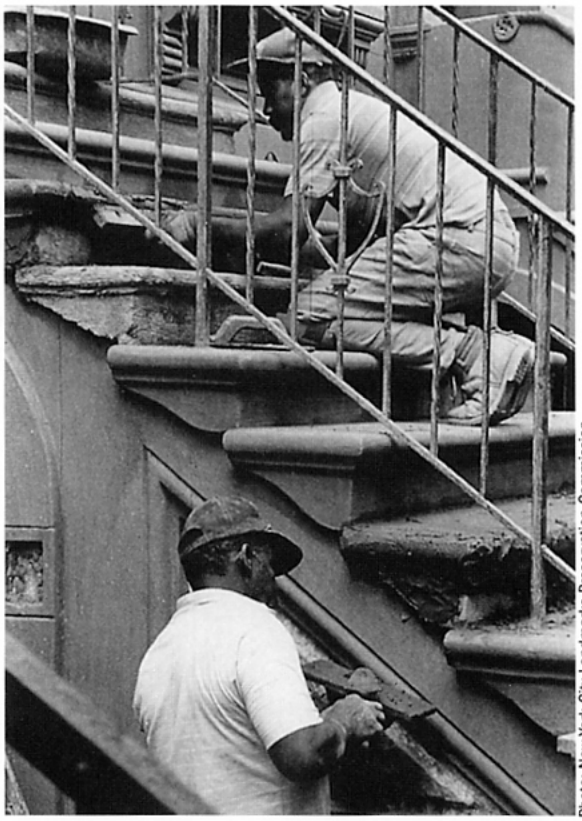


Photo: New York City Landmarks Preservation Commission.

Masons applying a finish coat of stucco.

Narrow the possibilities by concentrating on reputable companies which have been in business at least several years. A newly formed company could be considered if it comes highly recommended and has done projects similar to yours.

Call each firm on your list and **schedule an interview** with the person who would be overseeing your project. Determine what warranties and guarantees cover workmanship and materials, and who is responsible for subcontractors. Ask to be shown the contractor's license and permit, proof of state workman's compensation coverage, and insurance certificates.

For larger projects, **receiving three or more competitive bids is advisable.** Along with bids, obtain the specifics of the job in writing, including a thorough explanation of how the work will be executed. An architect can provide bid documents, including plans and specifications. Don't automatically take the lowest bid. Look for the best value combining a competitive price with experience and a thorough understanding of the project and of the special characteristics of the architecture of the house.

A signed contract, along with plans and specifications, should include a description of the work, the payment schedule, acceptance of responsibilities, insurance, warranties, provisions for additional work, trash removal, compliance with ordinances and statutes, obtaining of permits, arbitration of disputes, time of completion, and acceptance and occupancy by the client.

Remember that the building owner has ultimate responsibility to obtain a permit that covers all the work to be undertaken. If you have asked your contractor to get the permit, have him or her give it to you to post in the window.

With the help of qualified architects, engineers, and contractors, old house owners in the historic district can ensure that their homes meet their needs now and in the future, while preserving the charm and architectural integrity of their historic properties.

Adapted by: Robert J. Hotes, AIA, Susan Maxman Architects from: *Ridley Park Design Guidelines* (1995, Preservation Alliance for Greater Philadelphia); *Invest in a Dream with Your Architect* (1992, AIA); How to Hire a Contractor by Marjorie Roth (*1997, Old House Fair Resource Guide*)

Architectural Styles in the Rittenhouse Fitler District

"Style" is one of the most used — and abused — words in the English language, particularly when pressed into service in the study of architectural history. *(What Style is It?: A Guide to American Architecture,* 1983)

The architecture of the 19th century is characterized by a proliferation of styles that went rapidly in and out of fashion. The Rittenhouse Fitler Historic District contains one of the greatest assemblages of buildings from that style-conscious century. But very few buildings are pure expressions of style.

Many of the developers' rows and the modest brick worker housing that fill so much of the district are simple, vernacular buildings constructed with minimal attention to style. Some buildings are mixtures of stylistic motifs, reflecting a transition from one period to another; others have been altered and "modernized" over the years. And those modernizations themselves can be worth preserving.

For those reasons, purity of architectural style is rarely taken into account by the Philadelphia Historical Commission in its deliberations. Documentary evidence — old photographs, drawings, and other accounts, many of which are available at the Commission — is far more reliable as a basis for rehabilitation. So is a careful study of structures built at the same time. Observation and solid historical evidence will yield clues to what is appropriate for each house, without a blind adherence to the dictates of style.

What follows, then, is a very brief look at the styles that most influenced the rowhouse architecture in the Rittenhouse Fitler District. For a more thorough discussion of architectural styles, refer to the books in For Further Reading.

Photo: Philadelphia City Archives.

Historic photographs are a better basis for restoration than reliance on architectural style manuals. See Preservation Resources for places to view old images.

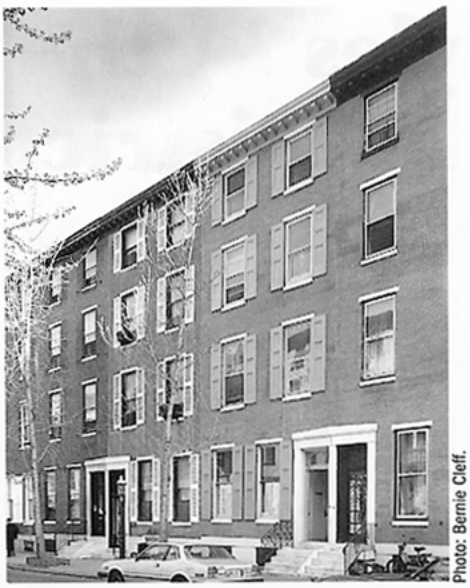


Photo: Bernie Cleff.

Simple and symmetrical, **Greek Revival** (c.1800-1850) incorporated motifs from Greek temple architecture. Typical elements include marble water tables and door entablatures, six-over-six, double-hung windows, and dentiled cornices.

Photo: Bernie Cleff.

Gothic Revival (c.1840-1930) was inspired by medievalism, Gothic church architecture, and the picturesque notion of a castle or cottage. Typical elements include pointed arch windows, drip moldings over windows and doors, and windows with diamond-shaped leaded panes or tracery. Elements of Gothic Revival architecture continued to be used in fashionable domestic architecture until well into the 20th century.

Photo: J. Randall Cotton.

Influenced by the Italian Renaissance, **Italianate** (c.1840-1870) is characterized by bold, projecting ornamentation, especially the cornices, which often have elaborate brackets, and at the lintels above windows and doors.

Photo: Bernie Cleff.

Philadelphia's City Hall is exemplary of **Second Empire** (c.1855-1875), a style influenced by French architecture under Napoleon III. It is characterized by a mansard roof, usually of slate with iron crestings, and ornate moldings and brackets.

Photo: Philadelphia Historical Commission.

Neo-Grec (c.1860-1875) is a term for a decorative vocabulary, often coupled with Second Empire, characterized by stylized classical details, angular forms, and incised detailing.

Photo: Bernie Cleff.

Queen Anne (c. 1870-1900) is an eclectic style combining motifs from the late medieval and early Renaissance periods, characterized by asymmetry, a mix of materials, colors, and textures, and a diversity of window types.

Photo: Bernie Cleff.

Colonial Revival (c. 1880-1930) is a look back to the American 18th century, characterized by a combination of colonial motifs including dentiled cornices, decorative door surrounds with fanlights and often sidelights, and multi-paned windows.

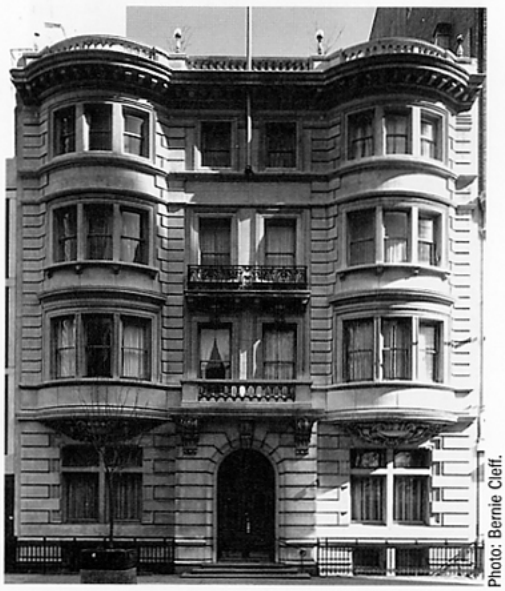


Photo: Bernie Cleff.

The imposing **Beaux-Arts** style (c. 1890-1920) is characterized by symmetry, robust classical motifs and ornamentation, and a variety of stone finishes.

Photo: J. Randall Cotton.

Mediterranean Revival (c.1900-1940) looks back to the Spanish Colonial era, typically with clay tile roofs, stucco walls, ornamental ironwork and balconies.

Photo: J. Randall Cotton.

Art Deco (c. 1925-1940) was a definite break with the past, a jazzy, richly decorated modern alternative to the International Style. It is characterized by geometric ornament, often in zigzag, chevron, or stylized floral motifs, an overall angular, vertical appearance, and a sleek, streamlined aesthetic.

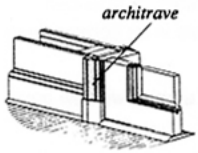
Photo: J. Randall Cotton.

Minimal ornamentation characterizes the **International Style** (c. 1920-1960). Ribbon windows are flush with the wall surface and cantilevered balconies soar into space.

Photo: Bernie Cleff.

Vernacular is a non-style, the common building type of a period or place. In the Rittenhouse Fitler Historic District, the modest brick rowhouses with simple lintels, sills, and cornices that line many streets exemplify Philadelphia vernacular at its purest.

Glossary



architrave 1. The lowest part of a classical *entablature.* 2. A molding enframing an opening such as a window.

areaway The below-grade space between a rowhouse and the sidewalk, usually providing light or access to the basement.

awning A projecting shading device mounted on the outside of a door or window.

baluster One of a series of short vertical posts, often ornamental, used to support a rail.

balustrade A railing composed of *balusters* and a top rail running along the edge of a porch, balcony, roof, or *stoop.*

bay A regularly repeating division of a facade, marked by *fenestration.*

bay window A projecting structure containing windows that rises from the ground or from some other support, such as a porch roof; see also *oriel.*

bituminous roofing A type of sheet roofing material made from bitumen, a class of cementitious substances found in asphalts and tars.

bracket A projecting angled or curved form used as a support, often ornamental, found in conjunction with balconies, *lintels, pediments, cornices,* etc.

brick molding A milled wood trim piece covering the gap between the window frame and masonry.

cap flashing A waterproof metal sheet that seals the tops of *cornices* and walls.

capital The topmost member, usually decorated, of a *column* or *pilaster.*

casement A window *sash* that is hinged on the side.

cast iron A type of iron, mass-produced in the 19th century, created by pouring molten iron into a mold; used for ornament, garden furniture, and building parts.

clapboard Wood siding composed of horizontal, overlapping boards, the lower edges of which are usually thicker than the upper.

colonnade A row of regularly spaced *columns* supporting an *entablature.*

colonnette A diminutive *column* which is usually either short or slender.

column A vertical cylindrical support. In classical design it is composed of a base (except in the Greek *Doric* order), a long, gradually tapered shaft, and a *capital.*

console A scroll-shaped projecting bracket that supports a horizontal member.

coping A protective cap or cover of a wall *parapet,* commonly sloping to protect masonry from water.

corbel An architectural member which projects upward and outward from a wall that supports a horizontal member.

Corinthian One of the classical orders, characterized by slender fluted *columns,* and ornate *foliate capitals.*

cornice A projecting molding, usually ornamental, that tops the elements to which it is attached; used especially for a roof or the crowning member of an *entablature,* located above the *frieze.*

cresting A decorative element, frequently of iron, usually located at the peak or edge of a roof.

crocket An ornamental *foliate* form placed at regularly spaced intervals on the slopes and edges of the spires, pinnacles, gables, and similar elements of Gothic buildings.

cupola A small dome on a base crowning a roof.

de-lamination The splitting apart of the outer surface of natural stone into thin layers that peel off, also called exfoliation.

dentil A small, square, toothlike block in a series beneath a *cornice.*

Doric One of the classical orders, recognizable by its simple *capital.* The Greek Doric *column* has a fluted shaft and no base; the Roman Doric *column* may be fluted or smooth and rests on a molded base.

dormer A vertical structure, usually housing a window, that projects from a sloping roof and is covered by a separate roof structure.

double-hung A type of window with two *sash,* each sliding on vertical track.

downspout A horizontal or vertical cylinder, usually made of metal, which carries water from the *gutter* to the ground; also called a *leader.*

drip molding A projecting molding around the head of a door or window frame, often extended to the sides of the frame, intended to channel rain away from the opening; also called a drip *lintel.*

dutchman A patch cut to size, glued, and sanded in a location where deteriorated material has been removed.

eave The overhanging edge of a roof.

efflorescence White powdery soluble salt deposits on masonry, caused by slow seepage of water.

egg and dart An ornamental band molding of egg forms alternating with dart forms.

elevation An exterior face of a building; also a drawing thereof.

enframement A general term referring to any elements surrounding a window or door.

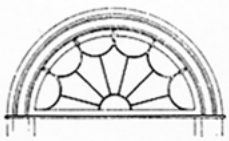
English bond A pattern of brickwork with alternate courses of *headers* and *stretchers.*

Double-hung window.

entablature In classical architecture, a major horizontal member carried by a *column(s)* or *pilaster(s);* it consists of an *architrave,* a *frieze,* and a *cornice.* The proportions and detailing are different for each order.

eyebrow dormer A curved *dormer* with no sides, covered by a smooth protrusion from the sloping roof.

facade The main exterior face of a building, sometimes distinguished from the other faces by elaboration or architectural or ornamental details.

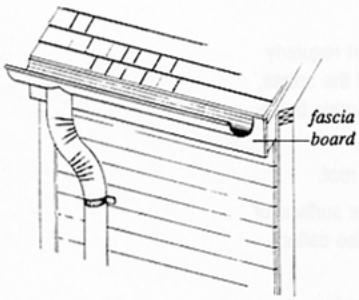


Fanlight

fanlight A semicircular or semielliptical window above a door, usually inset with radiating glazing bars.

fascia A horizontal, flat element, often combined with a *cornice* or *architrave.*

fenestration The organization and design of windows in a building.



festoon A carved ornament in the form of a band, loop, or wreath, suspended from two points; also called a "garland" or a *"swag."*

finial The crowning ornament of a pointed element, such as a spire.

flashing Strips of sheet metal bent to fit the angle between any two roof surfaces or between the roof and any projection, such as a chimney.

Flemish bond A pattern of brickwork in which each course consists of *headers* and *stretchers* laid alternately; each header is centered between the stretcher above and the stretcher below it.

flue Channel in a chimney for conducting flame and smoke to the outside.

foliate Decorative leafage, often applied to *capitals* or *moldings.*

French door, window A tall *casement* window that reaches to the floor, usually arranged in two leaves as a double door.

frieze 1. The middle horizontal member of a classical *entablature,* above the *architrave* and below the *cornice.* 2. A similar decorative band in a *stringcourse,* or near the top of an interior wall below the *cornice.*

gable The upper portion of an end wall formed by the slope of a roof.

galvanized iron Iron that has been coated with zinc to inhibit rusting, usually coated with paint to further inhibit rusting.

glazing Glass panes set in a framework.

glazing bar See *mullion.*

Gothic sash A window sash pattern composed of *mullions* that cross to form pointed arches.

grille A decorative, openwork grating, usually of iron, used to protect and/or to provide ventilation through a window, door, or other opening.

gutter A shallow channel of metal or wood set immediately below and along the *eaves* of a building to catch and carry off rainwater.

header A masonry wall unit of brick which is laid so that its short end is exposed.

hood A projection that shelters an element such as a door or window.

Ionic One of the classical orders, characterized by *capitals* with spiral elements called *"volutes,"* a fasciated *entablature,* continuous *frieze, dentils* in its *cornice,* and by its elegant detailing.

jamb Upright piece forming side of door or window opening.

jigsaw carving An ornament cut with a thin narrow saw blade.

joist One of a series of parallel timber beams used to support floor and ceiling loads, and supported in turn by larger beams, girders, or bearing walls; the widest dimension is vertically oriented.

key A block, often used in a series, which projects beyond the edge of the *enframement* of an opening and is joined with the surrounding masonry. A block handled is such a manner is keyed to the masonry; see *quoin.*

keystone The central wedge-shaped member of a masonry arch; also used as a decorative element on arches in wood structures.

latticework Thin strips of wood arranged in a netlike grid pattern, often set diagonally.

leaded window A window composed of small panes, usually diamond-shaped or rectangular, held in place by narrow strips of cast lead.

leader See *downspout.*

lime Crushed limestone, historically used as the binder in *mortar* mixes when combined with an aggregate, usually sand.

lintel A horizontal structural element over an opening which carries the weight of the wall above it.

loggia 1. An arcaded or *colonnaded* structure, open on one or more sides, sometimes with an upper story. 2. An arcaded or colonnaded porch or gallery attached to a larger structure.

lunette A crescent-shaped or semicircular area or opening on a wall surface.

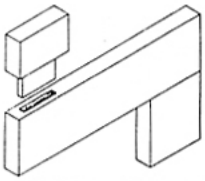
mansard A roof having a double slope on all four sides, the lower slope being much steeper. In rowhouse design, double-sloped roof on the building front, below a flat roof.

meeting rail The horizontal rail of a *double-hung* window *sash* designed to align with the adjacent rail of the other sash.

modillion A simple horizontal block arranged in series under the *soffit* of a *cornice* or a projecting scroll-shaped *bracket.*

molding A decorative band of varied contour; used to trim structural members, wall planes, and openings.

mortar Material used for *pointing* and bonding brick and other masonry units; made of cement or *lime* with aggregate (sand) and water.



Mortise-and-tenon

mortise-and-tenon A joinery technique formed by a projecting piece (the tenon) fitting into a socket (the mortise).

mullion A vertical primary framing member that separates paired or multiple windows within a single opening.

muntin A thin framing member that separates the panes of a window *sash* or glazed doors.

newel The main post at the foot of a stairway or *stoop.*

oriel A projecting bay window carried on *corbels* or *brackets.*

Palladian window A three-part window opening with a tall, round-arched center window flanked by smaller rectangular windows and separated by posts or *pilasters.*

panel A portion of a flat surface recessed, or raised from the surrounding area, sometimes distinctly set off by *molding* or some other decorative device.

parapet A low wall that serves as a vertical barrier rising above the edge of the roof, terrace, or other raised area; in an exterior wall, the part entirely above the roof.

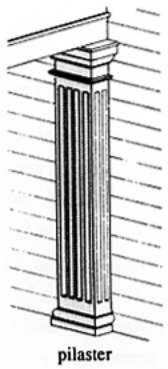
party walls In rowhouse construction, the walls shared by two adjoining houses.

paver A block of stone used in sidewalk or *areaway* paving.

Pedimented door

pediment 1. In classical architecture, the triangular space forming the *gable* end of a roof above the horizontal *cornice.* 2. An ornamental *gable,* usually triangular, above a door or window.

pier 1. A *column* designed to support concentrated load. 2. A member, usually in the form of a thickened vertical section, which forms an integral part of a wall; usually placed at intervals along the wall to provide lateral support or to take concentrated vertical loads.



pilaster

pilaster An engaged *pier* or pillar, attached to a wall, often with *capital* and base.

pintle Vertical rod attached to window frame to attach shutter.

pitched Sloping, especially referring to a roof.

plinth A platform base supporting a *column* or *pilaster.*

pointing, repointing The treatment of joints between bricks, stone, or other masonry components by filling with *mortar;* also called *tuckpointing.*

portico A small porch composed of a roof supported by *columns,* often found in front of a doorway.

p.s.i. Pounds per square inch, a term generally used when describing water pressure when cleaning a building.

quoin A structural form, usually of masonry, used at the corners of a building for the purpose of structural or visual reinforcement, frequently imitated for decorative purposes.

relief Carved or molded ornament that projects from a flat surface.

repointing See *pointing.*

return The part of a *molding, cornice,* or wall surface that changes direction, usually at a right angle, toward the building wall.

reveal The side of an opening for a door or window between the frame and the outer surface of a wall, showing the wall's thickness.

rock-faced Masonry treated as a rough surface that retains or simulates the irregular texture of natural stone.

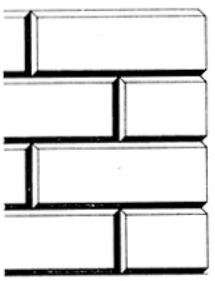
rosette A round floral ornament, usually carved or painted.

round arch A semicircular arch.

rowhouse One of a group of an unbroken line of attached houses that share common side walls, known as *party walls.*

rubble stone Irregularly shaped, rough-textured stone laid in an irregular manner.

rustication, rusticated Stonework composed of large blocks of masonry separated by wide, recessed joints; often imitated in other materials for decorative purposes.



Rustication

sash The framework of a window which holds the *glazing* (glass panes) in place; may be operable or fixed; usually constructed of horizontal and vertical members; sash may be subdivided with *muntins.*

secondary facade The facade or facades that do not face a public thoroughfare or courtyard.

segmental arch An arch which is in the form of a segment of a semicircle.

semidetached A building attached to a similar one on one side but unattached on the other; a "twin."

shaft The vertical segment of a *column* or *pilaster* between the base and the *capital.*

shed dormer A *dormer* window covered by a single roof slope without a *gable.*

shingle A unit composed of wood, cement, asphalt compound, slate, tile, or the like, employed in an overlapping series to cover roofs and walls.

shouldered arch An arch composed of a square-headed *lintel* supported at each end by a concave *corbel.*

shutter dog Metal attachment, often ornamental, which holds shutters in an open position against the face of a building.

sidelight A vertically framed area of fixed glass, often

subdivided into panes, flanking a door.

sill The horizontal member at the bottom of a window or door.

soffit The exposed underside of any architectural element, especially an *eave.*

spalling The chipping or erosion of masonry caused by abuse or weathering.

spandrel A panel between the top of one window and the *sill* of another window on the story directly above it.

stile A main vertical member of a door or window.

stoop The steps which lead to the front door.

stretcher A masonry unit or brick laid horizontally with its length parallel to the wall.

stringcourse A narrow horizontal band of masonry, extended across the facade, which can be flush or projecting, and flat surfaced, molded, or richly carved; also called a "beltcourse."

stucco A coating for exterior walls made from Portland cement, *lime,* sand, and water, sometimes referred to as cement plaster.

subframe A secondary frame set within a masonry opening.

sugaring A term describing the deterioration of stone caused by the breaking up or dissolving of the stone surface.

surround The ornamental frame of a door or window.

swag A carved ornament in the form of a draped cloth or a *festoon* of fruits or flowers.

terra cotta Hard-fired clay, either glazed or unglazed, molded into ornamental elements, wall cladding and roof tiles.

tie rod A metal tension rod connecting two structural members, such as *gable* walls or beams, acting as a brace or reinforcement; often anchored by means of a metal plate in such forms as an "S" or a star.

tracery An ornamental configuration of curved *mullions* in a *Gothic sash.*

transom 1. The cross-bar separating a door from the window, *panel,* or *fanlight* above it. 2. The window above a *transom bar* of a door.

transom bar A horizontal element that subdivides an opening, usually between a door and window.

trefoil A three-lobed decorative form used in Gothic architecture.

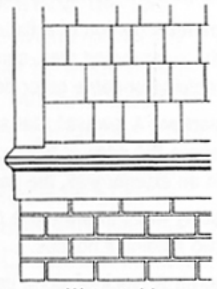
tuck-pointing See *pointing.*

turret A small tower, usually supported by *corbels.*

volute A carved spiral form in classical architecture; often used in pairs as in the *capitals* of *Ionic columns.*

voussoir A wedge-shaped component of an arch.

water table A ledge or projection, usually at first-floor level, that protects the foundation from water running down the wall of a building.



Water table

wrought iron Iron that is worked by being forged or hammered.

Reprinted, with revisions, from the New York City Landmarks Preservation Commission *Rowhouse Manual.* Illustrations are from *Old-House Dictionary.*

Preservation Resources

A number of resources exist to help provide useful information to owners and stewards of historic properties

Government Agencies

Philadelphia Historical Commission *1515 Arch St., 13th Floor, Philadelphia, PA 19102, 215-683-4590*
The Historical Commission is the city agency responsible for designating and regulating city-certified historic properties and historic districts. It provides technical advice, maintains records and lists, and serves in an advisory capacity to the Mayor and City Council on matters regarding historic preservation.

National Park Service *Northeast Field Office, Customs House, 3rd Floor, Philadelphia, PA 19101, 215-597-0652, web site: www.nps.gov/chal*
The National Park Service is a federal agency within the Department of the Interior. It serves as steward of National Historic Parks, manages the National Register of Historic Places and National Historic Landmarks, and reviews applications for federal tax credits for compliance with *Secretary of the Interior's Standards*. Technical Preservation Services in Washington specializes in technical assistance and publications and can be reached by phone at 202-343-9583; fax 202-343-3921 or email hps-info@nps.gov. On the World Wide Web, Heritage Preservation Services is at www2.cr.nps.gov

Pennsylvania Historical and Museum Commission *Bureau for Historic Preservation, P.O. Box 1026, Harrisburg, PA 17108-1026, 717-787-2891, web site: www.phmc.state.pa.us*
This state commission reviews nominations to the National Register of Historic Places, conducts initial review of federal tax credit applications for compliance with *Secretary of the Interior's Standards;* and provides information and technical assistance. Its Pennsylvania History and Museum Grants and Keystone Historic Preservation Grants are available to eligible organizations.

Membership Organizations and Advocacy Groups

Preservation Alliance for Greater Philadelphia *1616 Walnut St., Suite 2310, Philadelphia, PA 19103, 215-546-1146, email: historic@libertynet.org, web site: www.libertynet.org/~historic*
The Alliance is the Philadelphia region's non-profit preservation leader, dedicated to the protection and appropriate development of Greater Philadelphia's historic resources – buildings, communities, and landscapes. A membership organization, Alliance programs include public advocacy, the acquisition and maintenance of facade easements, and the provision of rehabilitation grants and technical assistance to stewards of historic religious properties and house museums. The Alliance sponsors the annual Old House Fair and conducts monthly insider tours of historic places, publishes *Preservation Matters*, a bi-monthly newsletter, maintains an award-winning web site with the latest in preservation news, and has a number of publications available to the public.

American Institute of Architects, *Philadelphia Chapter, 117 South 17th St., Philadelphia, PA 19103, 215-569-3186, email: aiaphila@voicenet.com, web site: www.libertynet.org/~aia*
The local chapter of the national organization has a long history of preservation advocacy: its Preservation Committee monitors endangered landmarks, advises the chapter on important issues and policies, and bestows the annual Landmark Building Award. Résumés and portfolios of architects with expertise in historic preservation are kept on file at the Resource Center of the AIA Bookstore and Design Center at 17th and Sansom.

Association for Preservation Technology *P.O. Box 22443, Philadelphia, PA 19110, Contact: Nan Gutterman, 215-235-3500*
This membership organization is devoted to the dissemination of technical information on preservation topics; members include architects, conservators, contractors, engineers, stewards of historic properties, and preservationists. The national organization publishes a scholarly journal and holds an annual conference, training sessions, and tours. The local chapter organizes monthly events, including tours, lectures, and conferences.

The Foundation for Architecture *One Penn Center, Suite 1165, Philadelphia, PA 19103, 215-569-3187, web site: www.voicenet.com/~ffa*
The Foundation, a membership organization, promotes appreciation of the built environment and architectural history through its Architecture in Education Program, which brings courses and workshops to schools, and through its extensive roster of walking tours and educational programs available to the public.

National Trust for Historic Preservation *Northeast Field Office, P.O. Box 18889, Philadelphia, PA 19119, 215-991-5778, email: nthp@libertynet.org, web site: www.nthp.org*
The field office of the private, non-profit organization chartered by Congress in 1949 serves Pennsylvania, Delaware, and New Jersey. The Trust encourages public participation in preservation, provides limited financial assistance through grant and loan programs, and publishes widely.

Partners for Sacred Places *1616 Walnut St., Suite 2310, Philadelphia, PA 19103, 215-546-1288, email: partners@sacredplaces.org, web site:www.sacredplaces.org*
Partners is a national, non-profit, non-sectarian organization founded in 1989 to help Americans embrace, care for, and make good use of older and historic religious properties. Partners' goals are to help congregations and their communities be good stewards of their sacred places, to develop an effective national network of advocates for sacred places, and to enhance public understanding of the value of sacred places as irreplaceable centers that create and sustain community life.

Preservation Pennsylvania *257 North St., Harrisburg, PA 17101, 717-234-2310, email: ppa@preservationpa.org, web site: www.preservationpa.org*
This statewide membership organization assists Pennsylvania communities and groups to protect and utilize the historic resources they want to preserve. It also monitors state legislative activity, publishes a newsletter, and administers a grant program for Philadelphia preservation projects.

Tri-State Coalition of Historic Places *c/o Preservation Alliance for Greater Philadelphia, 1616 Walnut St., Suite 2310, Philadelphia, PA 19103, 215-546-1146, email: heritage@libertynet.org, web site: www.libertynet.org/~heritage*
Tri-State is a consortium of historic sites in southeastern Pennsylvania, southern New Jersey, and northern Delaware that are open to the public. Its purpose is to work for the preservation and continuing interpretation of historic sites through education, advocacy, collaborative marketing, technical support, and exchange of information.

Libraries/Research Facilities

The Athenaeum of Philadelphia *219 S. 6th St., Philadelphia, PA 19106, 215-925-2688, email: laverty@libertynet.org, web site: www.libertynet.org/~athena*
The Athenaeum holds an extensive collection of architectural plans and drawings by noted Philadelphia architects and other materials useful in researching old Philadelphia houses.

Fisher Fine Arts Library *University of Pennsylvania 220 S. 34th St., Philadelphia, PA 19104, 215-898-8326 email: finearts@pobox.upenn.edu, web site: www.library.upenn.edu*
The Fisher Fine Arts Library is open to the public, and has an extensive collection of books and periodicals on architecture, architectural history, and historic preservation.

Free Library of Philadelphia *Logan Square, Philadelphia, PA 19103, 215-686-5322, web site: www.library.phila.gov*
The Social Science and History Department provides access to some of the periodicals related to historic preservation and to the techniques involved in alteration, repairs, and rehabilitation of historic structures. The Map Collection and Print and Picture Department contain resources that may help in researching historic houses.

Historical Society of Pennsylvania *1300 Locust St., Philadelphia, PA 19107, 215-732-6200, web site: www.libertynet.org/~pahist*
The Society is an excellent source of materials on Philadelphia history, including census records, old newspaper articles, family histories, maps, and atlases. The Society also has a large collection of watercolors and early photographs of various buildings and landscapes throughout the Philadelphia area.

The Library Company of Philadelphia *1314 Locust St., Philadelphia, PA 19107, 215-546-3181, email: refdept@worldlynx.net, web site: www.voicenet.com/~lcp3*
The Library Company's half-million printed books and 75,000 graphics document every aspect of American culture from the Colonial period to the end of the 19th century. Of special interest to those researching old Philadelphia houses are local histories, maps, atlases, and early images of the city.

Philadelphia City Archives *3101 Market St., Philadelphia, PA 19104 (After July 1, 1998), 215-686-1581, email: archives@phila.gov web site: www.phila.gov/phils/carchive.htm*
The City Archives contains deeds and mortgages from the founding of Philadelphia to 1952, birth, death, and cemetery records up to 1915, and an excellent early photograph collection, all invaluable in researching an old Philadelphia house.

Philadelphia Department of Records *City Hall, Room 154, Philadelphia, PA 19103, 215-686-2260, 686-2266*
The Department of Records stores records of property transfers between 1865 and the present, useful in establishing a chain of title for an old house.

Urban Archives *Temple University, Paley Library, Philadelphia 19122, 215-204-8257, email: bgallowa@nimbus.ocis.temple.edu, web site: www.library.temple.edu/urbana*
The Urban Archives exists to document the social, economic, and physical development of the Philadelphia metropolitan area from the mid-19th century to the present. Among the holdings are books on Philadelphia's history and growth, city directories and atlases, and newspaper clippings, including those from the *Philadelphia Bulletin.*

For Further Reading

The National Park Service publishes widely on preservation topics. Publications listed with GPO stock numbers are available from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. Phone 202-512-1800 Fax 202-512-2250; Preservation Briefs 1-14 can only be purchased by the set; GPO stock number: 024-005-01026-2. The text of Preservation Briefs 1-40 are also available at www.housenet.com/HistoricHomeWorks/PBriefs/pb00-toc.htm

For further information on ordering, the Park Service's Heritage Preservation Services can be reached by phone at 202-343-9583; fax 202-343-3921 or email hps-info@nps.gov. On the World Wide Web, Heritage Preservation Services is at www2.cr.nps.gov

Introduction:

The Secretary of the Interior's Standards for the Treatment of Historic Properties. 1995. *The Secretary of the Interior's Standards for Rehabilitation.* 1990. Single free copies can be requested by contacting Heritage Preservation Services at the numbers listed above or can be purchased from the Philadelphia Historical Commission.

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The following publications are available from the Center City District Foundation, 917 Filbert St., Philadelphia, PA 19107. Phone 215-440-5500; Fax 215-922-7672.

Enhancing Storefront Design ($5)

Security Grilles: City Requirements and Design Recommendations ($4)

New Construction:

Bock, Gordon. "Making Sense of Sensitive Additions." *Old-House Journal* (May-June 1995): 33-37.

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The New Old House Starter Kit. National Trust for Historic Preservation Information Series, 1997. Order Number 2196 from Information Series, National Trust for Historic Preservation, 1785 Massachusetts Ave. NW, Washington, D.C. 20036. Phone 202-588-6286; Fax 202-588-6223.

A number of publications are available from the American Institute of Architects Philadelphia Chapter, 117 South 17th Street, Philadelphia, PA 19103 (215-569-3186), or by calling AIA National at 1-800-AIA-9930.

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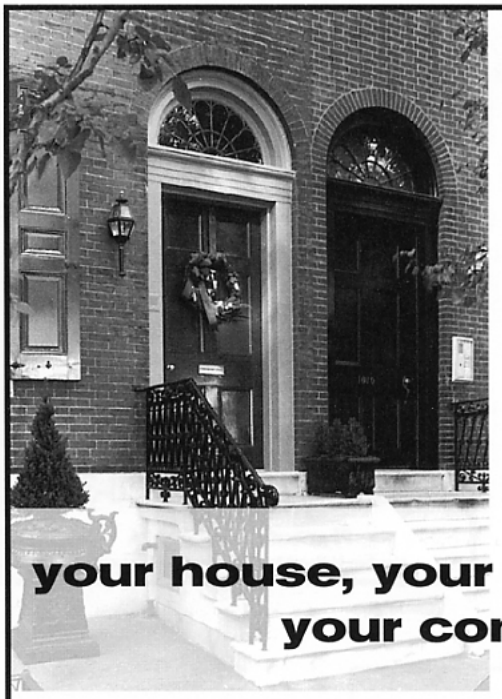

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Martin Jay Rosenblum, RA & Associates 346 South 15th Street, Philadelphia, PA 19102, 215-985-4285, fax: 215-985-2476, email: Arkatec2@AOL.COM

SRK Architects 1225 Spring Street, Philadelphia, PA 19107, 215-568-1090

David S. Traub Associates Architects and Planners 1704 Walnut Street, Philadelphia, PA 19103, 215-546-4039, fax 215-546-2727

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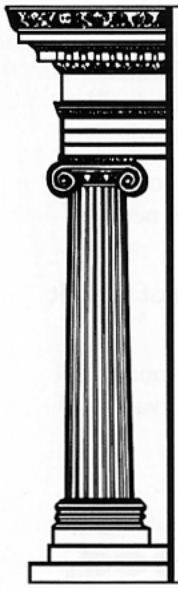

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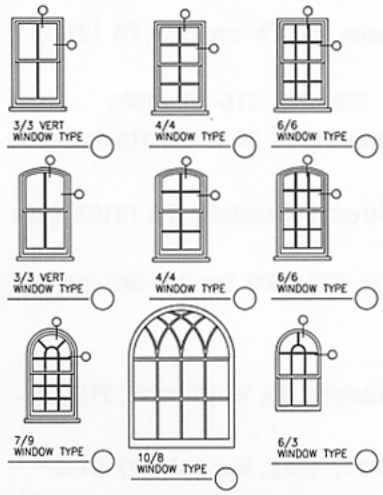

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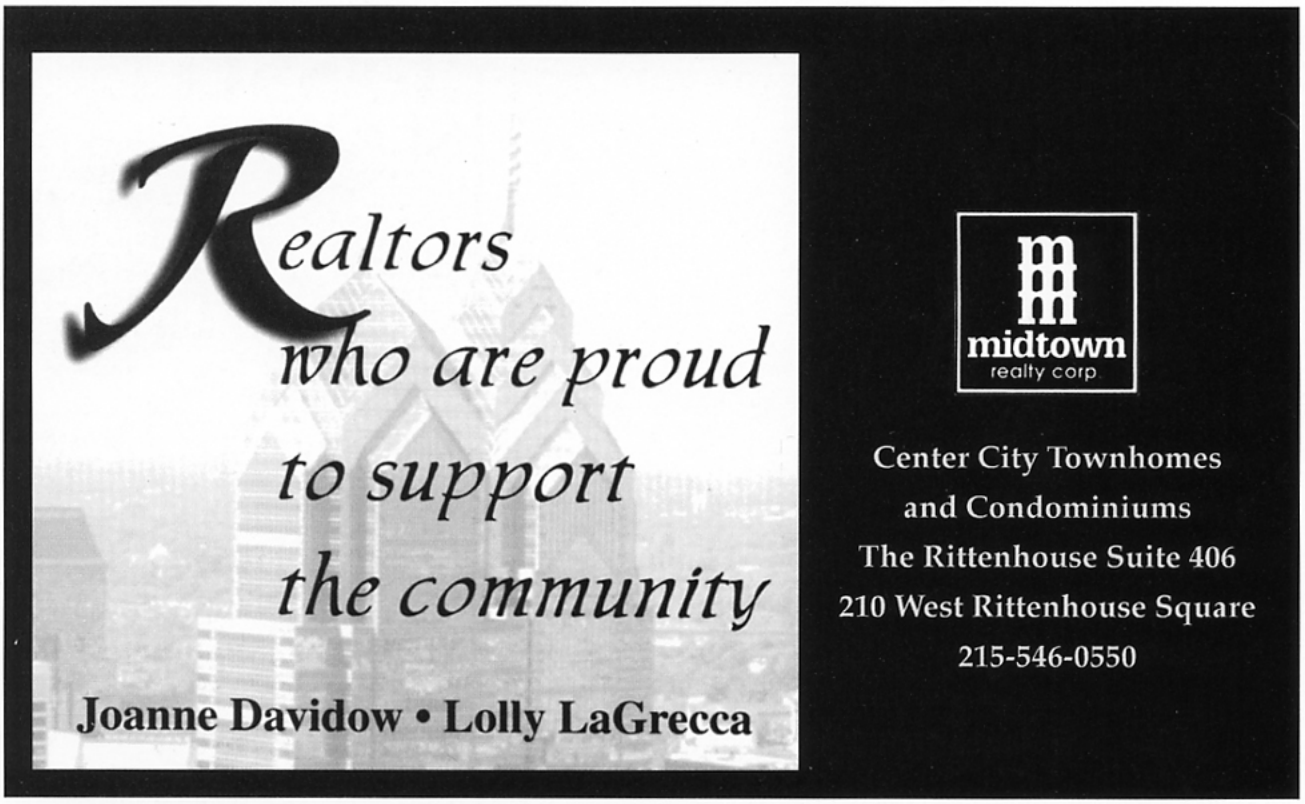

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