The design of a new building is critical to preserving the character of a historic district. The new building should contribute to that character by respecting the location, design, materials and other character-defining elements of the historic buildings, as well as respecting the character of the landscape and other important features of the street and district. A new building should be compatible with the existing environment without exactly duplicating existing buildings. A new building in a historic district must also conform to the District of Columbia's zoning and building codes.

The key to the design of a new building that enhances the existing environment is its compatibility with neighboring buildings. Compatibility is achieved through careful attention to the following design principles of building:

- Setback
- Orientation
- Scale
- Proportion
- Rhythm
- Massing
- Height
- Materials
- Color
- Roof Shape
- Details and Ornamentation
- Landscape Features

Compatibility is based on a thorough understanding of the design principles of existing buildings, as well as those used to design landscape features and secondary buildings on the site. Compatibility should also involve analysis of how these design principles are used in the neighborhood and how they can be interpreted using today's materials and construction techniques.

Compatibility does not mean exactly duplicating the existing buildings or environment. A new building should be seen as a product of its own time. To reproduce a historic building, or to copy exactly a style from the past, creates a false sense of history. By relating to the existing buildings and the environment, but being of its own time, a new building shows a district's evolution just as the existing buildings show its past. Perhaps the best way to think about a compatible new building is that it should be a good neighbor, enhancing the character of the district and respecting the context, rather than an exact clone.
Designing a new building that contributes to, rather than detracts from, the character of a historic district begins with an analysis of the character-defining features of the existing historic buildings, streets and landscapes. Typically, character-defining features include: setback, orientation, scale, proportion, rhythm, massing, height, materials, color, roof shape and details and ornamentation. In most historic districts the location and design landscape features, such as plants, trees, fences, sidewalks and driveways, and the design and location of secondary buildings, such as garages, also significantly contributes to the character of the district.

### Setback

The District of Columbia zoning code regulates the legal setbacks of a building, that is, the distance a building must be located inside the property lines. In some districts, buildings may be built on the property lines (called zero setbacks). In areas zoned for rowhouses, setbacks are usually required for the fronts and rears of buildings, but not the sides. In other districts, setbacks are required for all sides of a building.

Respecting the existing setback is important when locating a new building in a historic district.
In addition to complying with the legal setback requirements, a new building should respect the setbacks established by the buildings on a street. For example, the front of a new building should not extend beyond the line created by the fronts of existing buildings, even if allowed to do so by code. In streets with contiguous front facades, such as rowhouse or commercial blocks, it is very important that the facade of a new building align with the facades of its neighbors. On the other hand, respecting the alignment of rear facades is not generally as critical because they usually cannot be seen from a public street.

**Orientation**

The orientation of a building is the direction it faces. Most historic buildings squarely face a street, with their principal facade and entrance in full view. Some historic buildings are oriented to a sideyard. Due to Washington's street patterns, a few historic buildings are oriented to two streets. A new building should respect the primary orientation of its neighbors.

The orientation of a new building should respect that of its neighbors.
Scale

Scale is the relative or apparent size of a building in relation to its neighbors or some common object such as an automobile. Scale is also the relative or apparent size of building elements, such as windows, doors, cornices and other features to each other and to the building. Most buildings are designed to be of human scale, that is, they are designed to relate to the size of an average human being. Typically, residential buildings are designed to have human scale. Other buildings are designed to be of monumental, or larger than human scale. This is usually done to give a building prominence or symbolic importance. Typically, monumental scale is associated with governmental and religious buildings.

Scale can be achieved in many ways. For example, windows, doors, cornices and other elements can be enlarged to impart a sense of monumentality or they can be human in scale. Facades can be heavily rusticated, contributing to a sense of monumentality, or of plain materials and treatments, making the building appear human in scale.

1) The scale of a new building should usually respect the prevailing scale of its neighbors. In a few cases, a new building’s use or symbolic importance may make it appropriate for its scale to differ from that of its neighbors.

1) A rusticated façade is usually made of stone cut in large blocks with deep joints to give a bold, rich texture to the wall and monumental scale to the building.

The building on the left has a monumental scale, while the building on the right has a more human scale.


Proportion

Proportion is the relationship of the dimensions of building elements, such as windows and doors, to each other and to the elevations. Often, proportions are expressed as mathematical ratios, particularly for buildings based on Greek, Roman and Renaissance architecture. For example, many historic buildings designed in the nineteenth and early twentieth centuries use mathematical proportions to locate and size windows, doors, columns, cornices and other building elements. The design of a new building should respect, but not necessarily exactly duplicate, the existing proportions of neighboring buildings.

The proportions of a new building should be compatible with those of its neighbors.

Rhythm

The spacing of repetitive facade elements, such as projecting bays, storefronts, windows, doors, belt courses and the like, give an elevation its rhythm. The space between free-standing buildings, the contiguousness of rowhouses and other party-wall buildings, and the height of roofs, cornices, towers and other roof projections establishes the rhythm of a street. A new building should respect the rhythm of its neighbors as well as that of the street.

A new building should be compatible with the established rhythm of existing buildings and the street.
Massing

Massing is derived from the articulation of a building's facade through the use of dormers, towers and other roof projections, as well as facade projections such as bays, porches and steps. A building's massing significantly contributes to the character of a street, particularly in districts containing rowhouses or contiguous commercial buildings. A new building should respect the massing of neighboring historic buildings.

The massing of a new building should be compatible with the massing of existing buildings.

Height

The height of walls, cornices and roofs, as well as the height of bays, chimneys and towers, contributes to the character of existing buildings and districts. While a new building does not necessarily need to be exactly the same height as its neighbors to be compatible, it should be designed to respect existing building heights. For example, a new five story building in a block of two- and three-story buildings usually detract from the character of a street. Similarly, a new one-story building in a block of four- or five-story buildings will be out of character. Typically, if a new building is more than one story higher or lower than existing buildings that are all the same height, it will be out of character. On the other hand, a new building built in a street of existing buildings of varied heights may be more than one story higher or lower than its immediate neighbors and still be compatible.

A new building built in a street of existing buildings with varied heights should not be significantly higher or lower than its neighbors.
**Materials**

The materials used for walls, windows, sloping roofs, details and other visible elements of historic buildings should be respected in the design of a new building. In some districts, where most or all of the buildings on a street use the same exterior materials, the new building should normally use those or similar materials. In streets where the existing buildings use diverse exterior materials, a range of exterior materials may be used by a compatible new building.

The size, texture, surface finish and other defining characteristics of exterior materials are as important as the type of material itself. For example, in a street of tooled granite facades, a new building constructed of smooth polished black marble would probably not be compatible even though both are built of stone. Similarly, a new building constructed of glazed brick in a street of historic buildings built of unglazed brick would probably not be compatible.(2)

**Colors**

A building's colors are derived from the materials used in its construction. For example, brick, stone, terra cotta, slate, asphalt shingle, copper, lead and other materials that are typically left unpainted give color to a building. Color is also applied to materials such as wood, stucco, some metals and sometimes concrete. The colors of a new building should complement those of surrounding buildings. This is particularly important for a new building located in a neighborhood of rowhouses and other party-wall buildings. Typically no more than three different colors should be used on a new building.

**Roof Shapes**

The roof shape of a new building should respect those of its neighbors. For example, in a street of pent roof rowhouses, a new building should probably have compatibility designed pent roof. Introducing a different roof shape, such as a flat roof, would not be in keeping with the existing character of the street. Similarly in a historic district where gable roofs predominate, a new building with a hipped-roof would probably not be compatible.

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2) For further information on stone and brick finishes, see *Walls and Foundations of Historic Buildings*. 

The roof shape of a new building should be compatible with the roof shapes of neighboring buildings.
Details and Ornamentation

Some historic buildings in Washington contain elaborate details and ornamentation while others are relatively plain. A new building should consider the amount, location and elaborateness of details and ornamentation on existing neighboring buildings in its design. Existing details and ornamentation may be used as the basis for those on a new building but they should not be copied exactly. A contemporary interpretation of historic details and ornamentation can be a good way to differentiate a new from a historic building.

Details and ornamentation on existing buildings may be used as the basis for details and ornamentation on new buildings.

Landscape Features

Plants, trees, fences, retaining walls, sidewalks, driveways and other landscaping and landscape features are important character-defining elements in many historic districts. If possible, important existing plant materials, such as mature trees and shrubs, should be retained when a new building is built. If this is not possible, new landscaping that complements the new building and the neighboring buildings and landscaping should be installed. Similarly, important existing landscape features, such as retaining walls or iron fences, should be retained. If this is not possible, new compatible features should be constructed along with the new building.
Secondary buildings such as garages and sheds are important character-defining elements in some historic districts. They give scale and texture to the environment, sometimes providing a pleasing contrast to the primary buildings. New buildings designed for districts with existing secondary buildings should consider the contributions they make to the character of the site and street as well as respect their location, size, materials and other defining characteristics. If appropriate, a new building’s site should contain similar secondary buildings.
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(updated contact information only: 3/31/2010)