2.13 Utilities and Energy Retrofit

Example of underground utilities

Energy conservation, green technology, replacement or upgrading of old and inadequate utility services, and introduction or upgrading of mechanical services are a common concern of property owners. In order to make buildings useable for today's standards, but not compromise the historic integrity of a building, it is important totaddress these concerns and make allowances for utilities and mechanical services. When installing new services and equipment it is important to make sure historic material is not damaged and the historic character of the property and the site is not diminished.

There are a range of energy-conserving site and building features that can be utilized to make a historic building as energy efficient as possible. Historic buildings were constructed before the advent of central heating and air conditioning, but were designed to keep the building warm and cool through natural air flow and other means. For example, properly placed shade trees and a projecting porch can protect a building and its interior rooms from the sun while providing shaded outdoor space. Operable windows, shutters, and awnings allow occupants to control the amount of sun and breeze that enters a building. Breezeways are also common in Covington and provide for the is an architectural feature similar to a hallway that the passage of a breeze between structures to accommodate high winds, allow aeration, or provide aesthetic design variation. Commercial buildings utilize daylight through storefront transoms, light wells, and skylights as well as provide shade during summer months with awnings. Utilizing the building's original design features, such as these, while also making sensitive changes will make a historic building extremely energy efficient.

The following guidelines are to assist the owner and designer in minimizing the visual impact of modern building equipment on the original historic character of the building.

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Whenever possible have electric, cable and other utility lines enter the building from the rear or ally

GUIDELINES:

1. Retain and preserve inherent energy-conserving features of historic buildings and their sites, including shade trees, porches, awnings, breezeways and operable windows, transoms, blinds, and shutters.
2. Use appropriate thermal efficiency techniques such as weather-stripping and caulking.
3. Introduce energy efficient features, such as awnings, operable shutters, and storm windows and doors.
4. Whenever possible do not place externally placed wall or window air condition units on the front facade of a building.
5. Do not install utility and mechanical systems such as water, gas and electric meters, and central air conditioning units on the front façade of the building. If a building is a corner lot, both street façades should be avoided if possible. The use of a remote meter should be considered if it is an option provided by the utility service.
6. All types of equipment and contemporary devices shall not be visible on the front façades of the buildings. Television, radio, or other antennae (including satellite dishes), exhaust stacks or other mechanical ventilation equipment are to be placed on elevations other than the front façade and on roof slopes that do not face the street.
7. Power, telephone, or cable lines should not be draped across the front façades of buildings and should be buried whenever possible.
8. Locate solar equipment in an inconspicuous location that cannot easily be seen from the street, such as a rear slope of the roof or in a shed. Location should maximize the sun's energy and should not interfere with the building's characteristics. Camofloging of screens should be incorporated into the design. This can be accomplished by having the roofing materials the same color as the solar panel.
9. Consider installing a cool or green roof. Cool roofs consist of reflective metal material to radiate heat outward. Green roofs consist of thin layer of vegetation over a water-proof layer. It should not be visible from the street level or above the roof level and it shall not destroy historic roofing or building materials through the installation. However, careful consideration should be given before installing a green roof as the potential for structural or water damage can be high if not properly installed and designed by the proper architets and engineers.