



SUSTAINABILITY FOR HISTORIC BUILDINGS

Sustainability is an important consideration when it comes to historic buildings. The greenest building is one that's already built, and, with a few simple changes, historic buildings can become even more energy efficient.

Are Historic Buildings Sustainable?

Many historic buildings were constructed to operate efficiently without modern technology, so they already save energy. Features such as shutters, awnings, operable windows, and courtyards can all contribute to energy savings through passive design.

Additionally, modern green technology can be thoughtfully implemented to enhance these sustainable features. After all, the greenest building is one that's already built. In fact, a new building will take 10 to 80 years to negate the impact created through the construction process, such as manufacturing and transporting building materials.

Historic Windows and Energy Efficiency

Historic windows are often blamed for inefficiency and energy loss in historic buildings. In reality, only 10% of energy is lost through windows in a typical home. Repairing these windows instead of replacing them keeps the labor and money local, as well as maintaining the character. Rehabilitation creates 50% more jobs than new construction.

Another element to consider is the embodied energy of historic windows. This refers to the energy used to make and install the windows originally. New windows must be made, transported, and installed while the old windows go in a landfill, creating more waste. A strategy to make historic windows more energy efficient is to install interior storm windows.

Mind the Gap

Closing gaps is critical for energy efficiency. A gap of just 1/8 of an inch under a door lets in as much air as having a 2.4-inch-wide hole in the wall. Common sources of infiltration include crawl spaces, the chimney flue, and around door and window frames. Simple solutions include closing curtains or blinds or using draft "snakes" at doors to stop air coming in underneath them.

Modern Technology

Modern green technology can often be integrated into historic buildings, combining the best elements of both. Examples of this include solar panels, green roofs, and geothermal technology.

Solar panels are usually an excellent option for historic buildings. They should always be located on the least visible area of the roof. Several buildings in Savannah already have solar panels that are minimally visible or not visible, allowing them to fit into the surrounding context. Green roofs can also be a great option, if they are not visible.

Insulation

The goal when creating a more energy efficient historic building is maintaining the character while minimizing energy loss. Insulation is one of the most affordable ways to address energy concerns in historic buildings, because it requires affordable materials and minimal work compared to other strategies. Tactics to avoid including removing the historic siding to install insulation. One of the best places to add insulation is in the attic and crawl space. This has little to no impact on the historic character of the building and is low cost.

Resources

There are many resources available to learn more about greening historic buildings. A few are listed below:

- Historic Windows & Energy Efficiency by Preservation North Carolina: <https://www.presnc.org/historic-windows-energy-efficiency/>
- The National Trust for Historic Preservation's Preservation Research and Policy Lab: <https://forum.savingplaces.org/act/research-policy-lab>
- Sustainable Historic Preservation by the Whole Building Design Guide: https://www.wbdg.org/resources/sustainable_hp.php
- EPA Website: <https://www.epa.gov/smartgrowth/smart-growth-and-preservation-existing-and-historic-buildings>
- Secretary of the Interior's Standards for Sustainability: <http://www.nps.gov/tps/standards/rehabilitation/sustainability-guidelines.pdf>

How do I find out more?

The Historic Preservation Department of the Metropolitan Planning Commission is always available to answer questions. Contact information, informational brochures, copies of specific ordinances, and applications can all be found on the HPD website at <http://www.thempc.org/historicpreservation.htm>

Contact the Historic Preservation Department:
historic@thempc.org or 912-651-1440

CITY OF SAVANNAH

LOCAL HISTORIC DISTRICT MAP

