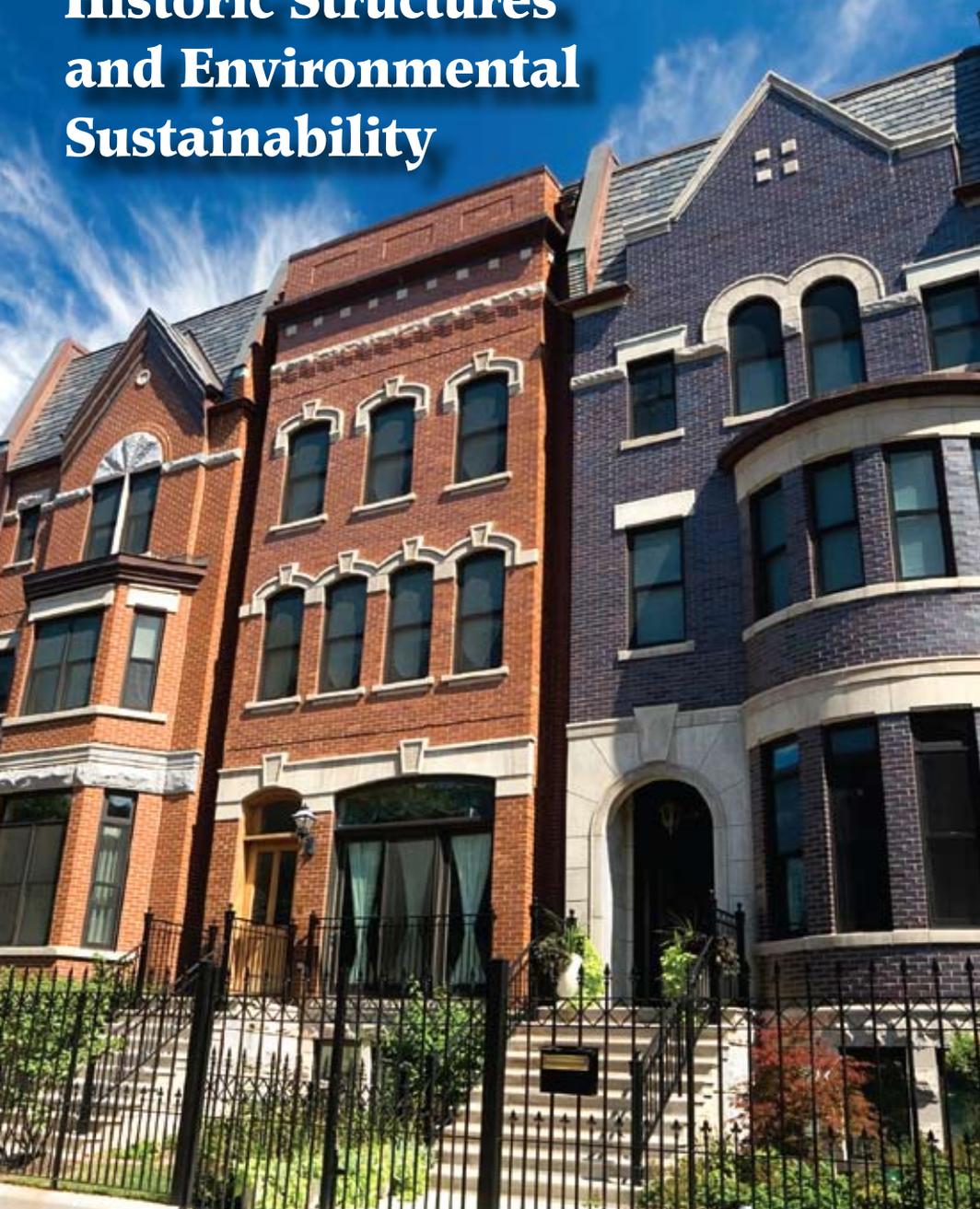


Preservation of Historic Structures and Environmental Sustainability



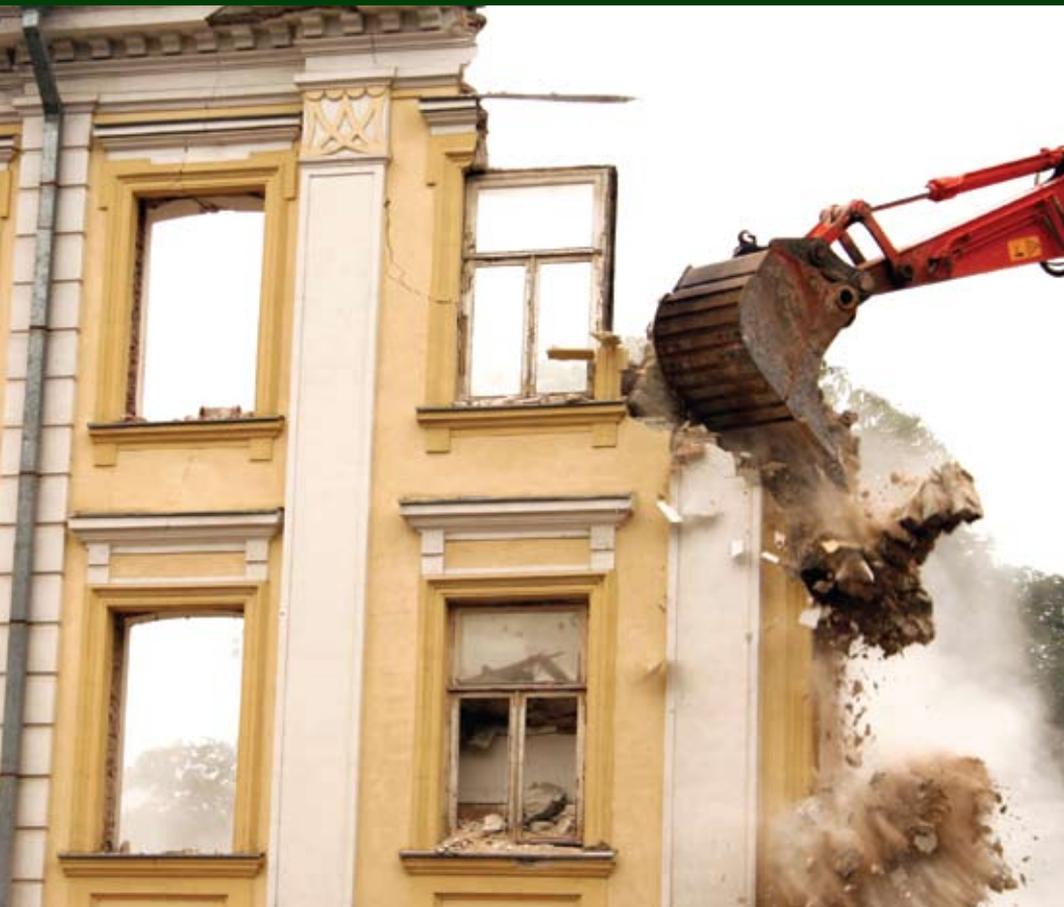
— These Buildings are Green

It's time we realize that historic buildings in the United States are a renewable resource.

The Pew Center on Global Climate Change estimates that 43 percent of carbon emissions in the United States are attributable to energy used in residential, commercial and industrial buildings, making the building sector the largest source of greenhouse gases in America. This figure does not even include the energy required to build new structures or to demolish established structures. The reuse of existing building stock can provide a wide range of interrelated benefits. Unfortunately, current public policy promotes the expansion of urban sprawl and does little to encourage the rehabilitation of buildings, whether or not historic.

The Brookings Institution estimates that, at current rates, one third of the existing building stock in the United States will be demolished in the next 25 years.

The refuse from construction, primarily from demolition, represents approximately 25 percent of the waste added to our landfills each year.





Contrary to popular belief, historic buildings are environmentally friendly in most respects.

Data from the U.S. Energy Information Agency indicates that structures built prior to 1920 are more energy-efficient than those built through the year 2000, when the concept of sustainability began to take hold.

Historic buildings typically have high ceilings, transoms and large windows for light and ventilation.

Site selection and placement on the site, as well as porches and the use of landscaping, contribute to the efficient use of energy.

Preservation saves energy by taking advantage of the non-recoverable energy embodied in an existing building and extending the use of it. Once energy is embodied in a building it can not be recovered for another use.





The General Services Administration estimates that the utility costs for historic buildings in its inventory are 27 percent less than for modern structures.

Historic neighborhoods reflect the mixed-use, walkable communities that attract much of today's diverse population.

Young and old Americans alike are drawn to the idea of living without the need for an automobile.





The shift in lifestyle that is necessary for the United States to overcome its current dependence on foreign energy is not only desirable—it is achievable.

Leadership is required to remove the incentives for urban sprawl, and to instead promote high-density, mixed-use, walkable communities.

Young professionals, as well as many seniors,
are drawn to the vitality of urban living.

“An urban environment enables seniors to be more mobile and more social. Where there’s more population density, that’s where you’re more likely to find public transit and more walkable communities, where services and offices and retail are closer to where people live, and they can access them more easily,” comments by Debra Alvarez, a legislative representative in AARP’s federal affairs office.





Historic structures can be rehabilitated to create moderate and low income housing in established areas.

Unfortunately, current public policy is aligned against walkable, urban centers through subsidies that encourage continued sprawl.

Transportation spending is tilted 5-to-1 in favor of building new roads rather than investing in alternative transportation.

Infrastructure options such as light rail have the most meaningful impact on the development of urban communities.





The benefits of encouraging such a cultural shift away from drivable suburban growth, as outlined by The Brookings Institution, include:

- Reduced residential heating and cooling costs owing to smaller homes and shared walls in multi-unit dwellings.
- The use of district energy systems for cooling, heating, and power generation.
- Lower electricity transmission and distribution line losses.
- Shorter freight and personal trips.



-
- More use of public transit, and more walking and cycling instead of car trips.
 - Reduced municipal infrastructure requirements, including the reduced need for local street construction and shorter electric, communication, water, and sewage lines, requiring less energy and water treatment.
 - Reduced waste streams.
 - The use of microgrids to meet local electricity requirements with highly efficient distributed power generation.
 - Reuse of existing structures.

Federal leadership will
be necessary to promote
public policy that
encourages investment
to meet the growing
demand for walkable,
mixed-use communities.

Support efforts to save historic structures and
transform our urban centers into the walkable,
mixed-use communities that serve as a
foundation for a sustainable future.

For more information, visit our website at
www.architecturaltrust.org/sustainability.

The Trust for Architectural Easements

is one of many nonprofit organizations and government agencies increasing awareness about the preservation of historic structures and environmental sustainability. Information cited in this booklet comes from a variety of sources. We encourage you to learn more about this very important issue and recommend the following organizations and articles as resources.

- Brown, M., Southworth, F. & Stovall, T. (2005, June). Towards a climate-friendly built environment. *Solutions*. Pew Center on Global Climate Change.
http://www.pewclimate.org/global-warming-in-depth/all_reports/buildings
- Nelson, A. C. (2004). *Toward a New Metropolis: The Opportunity to Rebuild America*. The Brookings Institution.
http://www.brookings.edu/reports/2004/12metropolitanpolicy_nelson.aspx
- U.S. Energy Information Agency. (2003). Consumption and Gross Energy Intensity for Sum of Major Fuels for Non-Mall Buildings.
http://www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/2003set9/2003pdf/c3.pdf
- Advisory Council on Energy Conservation and Historic Preservation, Booz Allen Hamilton. (1979) Assessing the Energy Conservation Benefits of Historic Preservation: Methods and Examples.
http://www.thegreenestbuilding.org/1979_ACHP_Energy_Conserv_and_Hist_Pres.pdf
- Wolf, B., Horn, D. & Ramirez, C. (1999). Financing Historic Federal Buildings: An Analysis of Current Practice. Washington, DC: General Services Administration.
http://www.gsa.gov/gsa/cm_attachments/GSA_DOCUMENT/ForumArticleFall1999_R2RI8C_oZ5RDZ-i34K-pR.doc
- Smith, W. (2004, May 28). The Good Life in the Big City. *AARP Bulletin*.
<http://www.aarp.org/family/housing/articles/goodlife.html>
- Sierra Club. (2001). Public Transit vs. Highways: What Cities are Spending to Improve Our Health. *Sprawl Report*.
<http://www.sierraclub.org/sprawl/reports01/transitvshighways.asp>
- Sarsynski, A., Brown, M. & Southworth F. (2008, May). *Shrinking the Carbon Footprint of Metropolitan America*. The Brookings Institution.
http://www.brookings.edu/~media/Files/rc/reports/2008/05_carbon_footprint_sarzynski/carbonfootprint_report.pdf



1906 R Street, NW
Washington, DC 20009
www.architecturaltrust.org

The Trust for Architectural Easements is one of the largest preservation easement holding organizations in the nation, protecting more than 800 historic buildings. It is dedicated to preserving historic neighborhoods by raising awareness about the cause of historic preservation and the resources and programs available to aid in the preservation and protection of America's historic architecture. For more information about the Trust for Architectural Easements or historic preservation, visit www.architecturaltrust.org.



Environmental impact estimates were made using the Environmental Defense Fund Paper Calculator.

Trust for Architectural Easements

Environmental Impact Statement

Trust for Architectural Easements used less than one ton of wood and saved the following resources by printing this piece on 100% post-consumer waste environmentally-friendly paper.

Total Energy: 4 million BTUs,
Greenhouse Gases: 474 lbs. of CO₂ equivalents.
Wastewater: 1969 gallons
Solid Waste: 253 lbs.

For more information visit <http://www.papercalculator.org>