

GREEN BUILDING AND HISTORIC PRESERVATION SYMPOSIUM
Washington D.C.
29 April 2008

Thank you and good afternoon. I'm glad to see that there's so much interest in the connection between historic preservation and sustainability. This symposium shows that preservation isn't concerned solely with the past; it's dedicated to building livable communities for ourselves and the generations that will follow us.

I'm proud of the National Trust's accomplishments in helping people protect, enhance and enjoy the places that matter to them – but I'm fully aware that our efforts could not be successful without our partners. Whether you represent a nonprofit organization, a government agency or a for-profit developer, you are an active and valued partner in preservation here in the Washington area, and I'm glad to have this opportunity to salute you.

A special word of appreciation goes to the developers who literally resuscitate communities by bringing viable new uses to older buildings. Many of these buildings are in neighborhoods that have suffered from decades of neglect and disinvestment – places such as the corridors along 14th Street Northwest and H Street Northeast here in Washington. Your work in areas like these is not only saving some treasured local landmarks but also making a real difference in the look, livability and economic health of our city.

When you strip away the rhetoric, preservation is simply having the good sense to hold on to things that are well designed, that link us with our past in a meaningful way, and that have plenty of good use left in them. Preservation in America has embraced that philosophy for more than 150 years now. Along the way, we've emphasized the importance of protecting landmarks of historical and architectural significance, we've demonstrated preservation's value as an effective revitalization tool with solid economic benefits, and we've advocated preservation as a means of strengthening the cultural ties that bind us together as a nation.

These things are still true, and always will be – but there's another message we should be broadcasting, and it's never been more important than it is now. As people grow more and more concerned about climate change, the degradation of the environment, and our relentless consumption of energy and natural resources, it is increasingly apparent that preservation has an essential role to play in dealing with the crisis that looms over us. Reusing buildings and reinvesting in existing communities are keystones of sustainable development. To put it another way, historic preservation is not only good for the soul and the pocketbook, it's good for the environment as well.

For the next few minutes, I'd like to tell you why preservation is the greenest of the building arts and what we at the National Trust are doing to help people understand preservation's key role in addressing the problems of global warming and environmental degradation.

The seriousness of the problem was laid out in a report issued a couple of months ago by the UN Intergovernmental Panel on Climate Change. The report states bluntly that “warming of the climate system is unequivocal” and is the result of human activities.

The United States is a big part of the problem. We have only 5% of the world’s population, but we’re responsible for 22% of the world’s greenhouse gas emissions, which are the leading cause of climate change. Discussions on this topic usually focus on the need to reduce auto emissions. It’s true that transportation – cars, trucks, trains, airplanes – accounts for 27% of America’s greenhouse gas emissions. However, the Pew Center on Climate Change has found that 43% of America’s carbon dioxide emissions comes from the operation of buildings.

Let me say that again: Nearly half of the carbon dioxide we send into the atmosphere comes from operating our buildings – and the impact becomes even more striking when we add the greenhouse gases emitted by the manufacture of building materials and products. Knowing this, it’s clear that any solution to climate change must address the need to be smarter about how we design and use our buildings. In other words, historic preservation can be – and must be – a key component of any effort to promote sustainable development.

The key phrase is “sustainable stewardship.”

The retention and reuse of older buildings is an effective tool for the responsible, sustainable stewardship of our environmental resources – including those that have already been expended. I’m talking about what’s called “embodied energy.”

Here’s the concept in a nutshell: Buildings are vast repositories of energy. It takes energy to manufacture or extract building materials, more energy to transport them to a construction site, still more energy to assemble them into a building. All of that energy is embodied in the finished structure – and if the structure is demolished and landfilled, the energy locked up in it is totally wasted. What’s more, the process of demolition itself uses more energy – and, of course, the construction of a new building in its place uses more yet.

Let me give you some numbers that will translate that concept into reality.

- According to a formula produced for the Advisory Council on Historic Preservation, about 80 billion BTUs of energy are embodied in a typical 50,000-square-foot commercial building. That’s the equivalent of 640,000 gallons of gasoline. If you tear the building down, all of that embodied energy is wasted.
- What’s more, demolishing that same 50,000-square-foot building would create nearly 4,000 tons of waste. That’s enough debris to fill 26 railroad boxcars – a train nearly a quarter of a mile long, headed for a landfill that is rapidly filling up.
- Once the old building is gone, putting up a new one in its place takes more energy, of course, and it also uses more natural resources and releases new pollutants and greenhouse gases into our environment. It is estimated that constructing a 50,000-square-foot commercial building releases about

the same amount of carbon into the atmosphere as driving a car 2.8 million miles.

All the statistics tell us that buildings are the problem – but incredibly, we propose to solve the problem by constructing more and more new buildings while ignoring the ones we already have. It all comes down to this simple fact: We can't build our way out of the global warming crisis. We have to conserve our way out.

No matter how much green technology is employed in its design and construction, any new building represents a new impact on the environment. The bottom line is that the greenest building is one that already exists. That means we have to make better, wiser use of what we've already built.

This fact is the foundation of a new and ambitious effort we've recently launched at the National Trust.

This Sustainability Initiative is built around four core principles of "Sustainable Stewardship":

- 1) **Reuse buildings:** A sound older building that is abandoned or underused is a wasted asset. Putting existing buildings to good use reduces demolition and construction waste, lessens the demand for energy and other resources for new building materials, and conserves the energy originally expended to create these structures.
- 2) **Reinvest in older and historic neighborhoods:** All of us in the Washington area know how sprawl impacts our lives. But even while sprawl is devouring our landscape, many neighborhoods in the inner city and the inner ring of suburbs are vastly underused. Revitalization of existing neighborhoods promotes efficient land-use patterns and focuses public and private reinvestments in areas where infrastructure is already in place, already paid for. Furthermore, older neighborhoods are typically compact, centrally located, walkable and mass-transit accessible – characteristics that are promoted by advocates of smart growth and the "new urbanism".
- 3) **Retrofit older and historic buildings to achieve energy efficiency:** Because of their quality of construction, careful siting, and use of passive heating and cooling methods, many older buildings are remarkably energy-efficient. In fact, when GSA examined its buildings inventory in 1999, it found that utility costs for historic buildings were 27% less than for more modern buildings. Nevertheless, many older buildings are badly in need of energy-efficiency upgrades – and there are plenty of techniques and products on the market that make these upgrades much less challenging than they once were. That leads me to the final principle:
- 4) **Respect historic integrity:** An increasing number of sensitive and successful rehab projects demonstrates conclusively that historic buildings can go green without losing the distinctive character that makes them significant and appealing. Architects, developers and property owners no longer have to choose between getting the energy-efficiency they want or keeping the character they love; they can have both.

I recently saw an exemplary green rehab project in Portland, Oregon, that turned an armory built in 1892 into a state-of-the-art performance space; the Portland Armory is the first historic building to earn a platinum certification under the U.S. Green Building Council's LEED rating system. Here in Washington, some of you know that the National Trust recently opened President Lincoln's Cottage to the public – but you may not know that the Visitors Education Center occupies a renovated historic building that is fully LEED-certified.

Seeing and hearing about projects like these – and there are plenty of others – I'm impressed by the commitment of preservationists, property owners, architects and policy-makers to go green. And I'm enormously encouraged by the attitude among developers who are not only rehabbing existing buildings – a big challenge in its own right – but also making a commitment to reduce the environmental impact of those buildings.

The best historic preservation practices can be integrated with green building practices. Historic buildings can go green, and more and more of them are doing so every day – but there is still a lot of important work ahead of us.

Happily, D.C. government took an important step in the right direction in December 2006, when it adopted the Green Building Act and thereby became the first major city to require LEED compliance for *private* projects. This commitment to reducing carbon emissions is both commendable and courageous, and it puts the District in the first rank of progressive municipalities that have officially recognized the link between buildings and climate change.

The requirements of the Green Building Act will be implemented in phases between now and 2012. This means that just four years from now, projects that receive federal historic-rehab tax credits will be required to go green – a requirement that may well be the first of its kind in the country. Between now and then, we have a window of opportunity to think seriously about the implications of the Act for the District's irreplaceable historic resources. We must anticipate tension that may arise between green-building practices and long-established preservation techniques, and develop the technical capacity and the resources needed to address these potential difficulties.

Obviously, we must work to ensure that green-building requirements don't jeopardize the distinctive character of the buildings that embody the history of the District and the heritage of its residents. One way to do this is to use the next four years as an opportunity to undertake demonstration projects that show how green-building and preservation practices can be blended.

But while we're showcasing best practices, we have to develop and implement smooth regulatory procedures as well. Like most of its counterparts across the country, the D.C. Historic Preservation Office struggles to keep up with its existing workload and simply hasn't had the time or opportunity to develop the in-house skills needed for providing effective assistance to, and oversight of, green historic-rehab projects. In the coming months, the D.C. HPO must develop the technical expertise that will facilitate the review – and, when appropriate, the approval – of what is almost sure to be a growing number of preservation projects that incorporate green technology. One way to do this is to

encourage staff members to receive LEED accreditation from the U.S. Green Building Council.

In addition to good law and fair procedures, we also need strong incentives. Since they were first introduced in 1976, federal historic-rehab tax credits have been enormously successful in encouraging private-sector investment in the rehab and reuse of historic commercial buildings. The National Trust and its partners are working right now to expand the use of these federal credits, especially in areas such as the creation of affordable housing and the rehab of smaller commercial properties – and we're getting great bipartisan support in both houses of Congress.

We're also working to expand the availability of state rehab tax credits. Twenty-nine states have adopted their own credits to complement those offered by the federal government, and the benefit to those states has been tremendous. Both Maryland and Virginia have strong state tax-credit programs in place, but the District does not. Implementation of a rehab tax credit in D.C. would make a strong statement about the city's commitment to preserving our cultural heritage and promoting sustainable development. It would facilitate reinvestment in existing neighborhoods, including those that have not benefited from the prolonged real-estate boom of the past decade. It would encourage fiscally responsible use of existing infrastructure and help provide a viable in-town alternative to sprawling development on the urban fringe. In short, it would demonstrate that sound preservation policy is also smart economic and environmental policy.

Speaking of environmental policy, work is just getting underway on the District's Climate Change Action Plan, which will outline how the city intends to fight global warming – from encouraging the use of mass transit to expanding recycling programs. Many such plans, including those from cities such as New York and San Francisco that are regarded as pacesetters in environmental policy, make little or no provision for green retrofits of the existing building stock. Even fewer – if any – establish the retention and reuse of existing buildings as a priority. We have an opportunity to make Washington a leader in this important area. If we can establish reuse, reinvestment and retrofitting as the foundation of the city's efforts to address climate change, we can make the Nation's Capital a national model in treating buildings as renewable, not expendable, resources.

The DC Green Building Act will help promote energy efficiency in new construction and major rehab projects over 50,000 square feet. But it will not encourage environmentally-friendly rehab by private homeowners or those undertaking smaller commercial or institutional projects – and it does nothing to encourage the greening of any buildings that are not undergoing major renovation.

There are some ways to bridge this gap. To help encourage green retrofits of commercial buildings, programs such as the Clinton Climate Initiative provide technical expertise, make materials and systems available at wholesale cost, and even offer favorable financing. The District should do everything it can to ensure

that building owners know about these programs and take advantage of them. In addition, the City should develop and disseminate best-practices guidance for homeowners who simply want to do more to reduce their historic home's energy consumption. And since rowhouses are so common here, the City should commit to greening one or more of these distinctive residential buildings as a demonstration project.

I want to mention one last issue. It's a question for which I don't have an answer, but we need to find one soon.

In many discussions of preservation as sustainable development, the 800-pound gorilla in the room is the issue of density. On the one hand, it's generally accepted that density is essential to sustainable development, since, among other things, it helps control sprawl and makes mass transit a viable alternative to auto-dependency. On the other hand, some argue that preservation regulations thwart sustainable development by preventing new construction that would increase density in historic neighborhoods.

What's needed is balance. We need to encourage sustainable development and preserve the energy embodied in existing buildings, but we don't want to sacrifice the distinctive and appealing character of the historic places we care about. I believe it isn't an either/or proposition. Zoning regulations can be crafted so as to encourage the retention and reuse of the existing building stock while focusing more intensive development in areas where it is appropriate – such as neighborhoods where there is a significant number of vacant lots

As I said, I don't have the answer to this one, but it's an issue of some urgency right now, since the District has begun work on a major revision of its zoning code. Stay tuned.

I hope I've impressed you with the seriousness of the challenge we face – and the critical importance of dealing with it sensibly and successfully. In the face of unprecedented climate change, we must embrace reuse of buildings and reinvestment in historic neighborhoods as sustainable development, and commit to greening the existing building stock.

Preservation has long sustained America by working to protect the evidence of its past. Now, with your help and commitment as partners, preservation can play a leadership role in the sustainable stewardship of America's future.