



AMERICAN EMBASSY PANAMA CITY, PANAMA

27% reduction in energy costs

32% reduction in indoor water use

50% reduction in outdoor water use

2nd U.S. embassy to earn LEED certification

LEED® Facts

American Embassy
Panama City, Panama

LEED for New Construction
Certification awarded March 10, 2008

Certified 26*

Sustainable Sites 6/14

Water Efficiency 3/5

Energy & Atmosphere 4/17

Materials & Resources 2/13

Indoor Environmental
Quality 6/15

Innovation & Design 5/5

*Out of a possible 69 points

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Green Design = Energy Independence and Security

PROJECT BACKGROUND

The new US embassy in Panama is located in the capital, Panama City, a city with a cosmopolitan vitality, whose proximity to the Canal, earned it the title "The Crossroads of the World". The city's 450,000 residents are a mixture of travelers who decided to stay. Panama, with over 1,700 miles of coastline in a country slightly smaller than South Carolina, is also home to a marine life and ecology research center managed by the Smithsonian Tropical Research Institute. In March 2008, the U.S. embassy in Panama became the second U.S. diplomatic enclave in the world, to earn LEED certification.

GREENING THE STANDARD EMBASSY DESIGN

The plan for the Panama embassy began with the Standard Embassy Design (SED), a stock model developed in the wake of the 1998 al Qaeda bombings of the U.S. embassies in Nairobi, Kenya, and Dar es Salaam, Tanzania. Although over sixty embassies have since been occupied using SED requirements, Panama's is only the second to fully document the successful implementation of the green strategies typically incorporated into the SED project. In 2008, Richard Shinnick, AD Interim, director of the Bureau of the Overseas Building Operations (OBO) for the U.S. Department of State, required all new embassies and consulates to earn formal LEED certification from the U.S. Green Building Council. OBO is committed to achieving targets set by Executive Order 13423 and the Energy Independence and Security Act of 2007 to reduce US dependence on fossil fuels and water resources thus strengthening our National Security.

STRATEGIES AND RESULTS

The Department takes a holistic and integrated approach to sustainable design and construction using the LEED Green Building Rating System to guide the project planning and development process. The new embassy compound project in Panama City incorporates a wide range of energy efficient and sustainable technologies and strategies. The site design included an erosion and sedimentation control plan, promoted the use of mass transit and cycling and reduced the urban heat island effect from extensive hard surface areas. Water consumption for irrigation was reduced by 50 percent and potable water use was reduced by 32 percent through the use of innovative bathroom fixtures. Energy efficiency measures were incorporated throughout the building design, including improved roof insulation, sun shades, lighting controls, and improved HVAC standards to achieve a 26.7 percent reduction over ASHRAE 90.1, 1999 standard. More than 22.6 percent of the building materials were extracted and manufactured within 75 miles of the project site, and efficient waste collection and dedicated recycling facilities were integral to the building construction. The building's indoor environment is monitored through CO₂ sensors, temperature, and humidistats to provide the highest air quality and thermal comfort possible. Finally, the Embassy provides an educational experience for staff and visitors, explaining the integration of security and sustainable design strategies, technologies, and benefits so occupants may learn from this integrated approach.

ABOUT THE BUREAU OF OVERSEAS BUILDINGS OPERATIONS

DOS's mission to create a more secure, democratic, and prosperous world for the benefit of the American people and the international community is supported by OBO. OBO's mission is to provide safe, secure, functional, and well-maintained facilities for the conduct of U.S. diplomacy and the promotion of U.S. interests worldwide. In concert with other State Department bureaus, foreign affairs agencies, and Congress, OBO sets worldwide priorities for the design, construction, acquisition, maintenance, use, and sale of real properties and the use of sales proceeds.

"Many of our posts are crying out for greener programs and greener buildings, for political and public diplomacy reasons."

Richard Shinnick
Director AD Interim, Overseas
Building Operations for the U.S.
Department of State
(quoted in *Federal Times*)



Architect: Enhorn Yaffee & Prescott (EYP)
Landscape Architect: Langan Engineering
Interior Design: EYP
Design-Build Contractor: Caddell
Engineer: EYP
Owner: U.S. Department of State, Overseas Buildings
Operations

Project Size: 43.2 acres
Total Project Cost: \$67,000,000
Total net project area: 15,953 gross sq meters, (includes a 13,646 gsm office building, 3,046 gsm GSO warehouse, and 629 gsm MSGQ building)

ABOUT LEED

The LEED® Green Building Rating System™ is the national benchmark for the design, construction, and operations of high-performance green buildings. Visit the U.S. Green Building Council's web site at www.usgbc.org to learn more about LEED and green building.

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