

## **MDOT's commitment to Sustainable Energy Efficient Design**

**The Leadership in Energy and Environmental Design (LEED)** Green Building Rating System, developed by the [U.S. Green Building Council](#) (USGBC), provides a suite of standards for environmentally sustainable design, construction and operation of buildings. Certification through the LEED process is based on a variety of categories, such as site sustainability, energy, materials, and indoor air quality. Ratings are divided into four categories: basic certification, silver, gold, and platinum.

In 2008 Governor O'Malley signed into law 2008, the High Performance Buildings Act requiring that most new public construction achieve either the LEED Silver standard or a comparable standard. Many of MDOT's more specialized facilities were exempt from the 2008 requirement for certification, but the Department committed to incorporating the same green building standards into transportation structures wherever possible, with or without certification. Some examples of LEED activity include:

### The Maryland Department of Transportation (MDOT)

- The MDOT Headquarters Building is LEED Gold certified.

### State Highway Administration (SHA)

- SHA's South Mountain Welcome Centers, nearing completion, will be LEED Silver certified.

### The Maryland Transportation Authority (MDTA)

- The ICC Eastern Operations Center, scheduled to begin construction this summer, will be LEED Silver certified.
- The RFP for the replacement of the Maryland House and Chesapeake House travel plazas require the new buildings to be LEED Silver certified.
- A series of roof replacements scheduled to be completed in Spring, 2010 are being installed to LEED standard SSc7.2 option 1 roof material, which exceeds the LEED requirement of SRI 78, including: The Bay Bridge Administration and Maintenance Buildings, the Key Bridge Administration and Maintenance Building, the MDTA Police Headquarters, and Fort McHenry Tunnel East and West Vent Buildings.

### Maryland Transit Administration

- The Red Line Compact executed by MTA and Baltimore City commits to designing to LEED standards and other sustainability strategies. <http://www.gobaltimoreredline.com/>
- MTA's policy is to design all new or rehabbed MTA structures to LEED Silver standard, with or without certification.
- The new Kirk Avenue Bus Division in northeast Baltimore City will be MTA's first "green" building, designed under that policy. <http://www.mtagogreen.com/mtagreen.html>

### Maryland Aviation Administration

- The Southwest Airlines Terminal (A/B) at Baltimore/Washington Thurgood Marshall International Airport, completed in 2005, was constructed with LEED design elements.

### Maryland Port Administration (MPA)

- The Masonville Cove Environmental Education Center, part of MPA's mitigation for the Masonville Dredge Material Containment facility, was designed as a "Near Zero, Net Energy" Building, meaning that the green principles and technologies used in the building are so efficient that the energy used for lighting, heat, etc. will be next to nothing! This was accomplished in part by:
  - Ground Source (Geothermal) HVAC System
  - Solar Energy Generation for Thermal and Electric Energy
  - Emphasis on the Building Envelope, such as insulation and air sealing
  - Maximizes Siting & Placement Benefits, such as passive solar

All elements of the building were considered for maximum environmental and human health, such as a Fresh Air Energy Recovery system, a minimizing Stormwater Runoff plan, and the use of Local, Recycled and Recyclable Materials. Construction on the building began in April 2008 and the building opened in April 2009. While MPA did not pursue certification, LEED standards were used and the building would be eligible for LEED Silver.

- MPA utilizes an Environmental Checklist established under MPA's environmental management system which includes a sustainability and reduction of hazardous materials section. In that section the feasibility of implementing green building elements (LEED Certification requirements) is evaluated during the design phase for new structures.