



## Philip Merrill Chesapeake Bay Foundation Headquarters

**Building:** Phillip Merrill Environmental Center Headquarters for the Chesapeake Bay Foundation

**Opened:** November 2000

**Location:** Annapolis, MD

**Size:** 30,600 sq/ft with only a 15,000 sq/ft footprint, 2 Stories

**LEED Rating:** 1.0 Platinum

**Description:** The Philip Merrill Center was the first building in the world to receive the USGBC LEED Platinum rating. The building was designed to use 50% less energy than a typical office of the same size. Throughout the project the design team placed particular emphasis on the building envelope.

When it came time for the designers to decide on what materials to use in construction of the outer walls and roof they choose Structural Insulated Panels (SIPs) with an expanded polystyrene (EPS) core. They found that the SIPs provided the insulation ratings and structural support that fit exactly with the specifications they were shooting for. To get the desired r-values, both a mechanical engineer for the roof design and a structural engineer for the walls were brought in to consult on the project. At first the engineers recommended SIPs panels of 12" thickness that would have resulted in an astronomical r-value of R-45. But when it came time to start adding the cost of additional supports and transportation it was more economical and environmentally beneficial to go with a thinner 8" SIP panel that would still offer a superior R-34 rating.

After construction was completed, students from MIT were invited to run tests on how much energy the building consumed. Their findings showed that the Philip Merrill Center used 53% less energy to operate when compared to other buildings of the same size.

**Building Statistics:** Annual Energy use (BTU/sqft) 23,000

**Other Awards:** 2003 Northeast Green Building Award  
First Prize in Places of Work

