



WESTERN PENNSYLVANIA  
SCHOOL FOR THE DEAF

# Facts

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## **The New Residence at the Western Pennsylvania School for the Deaf Highlights the School's LEED Building and Campus Sustainability Efforts**

It is the intention of the Western Pennsylvania School for the Deaf to practice campus-wide sustainability. These efforts will benefit the WPSD community, prospective students and their families in supporting a school that values sustainable practices and sustainable design.

- WPSD has a commitment to pursue LEED Certification for every new construction and major renovation project on campus.
- LEED, which stands for Leadership in Energy and Environmental Design, is a rating system for buildings developed by the US Green Building Council. The system evaluates the environmental performance of the building based on a series of points and is a third-party verification system to quantify that design strategies and choices were made to improve energy savings, increase water efficiency, reduce CO2 emissions, improve indoor environmental quality, minimize resource usage and encourage sensitivity to the environmental impact of building.
- To attain each of the four levels, Certified, Silver, Gold, or Platinum, each building must receive a certain number of points. The system evaluates the environmental performance of the building based on site selection, water, energy, materials & resource usage, indoor air quality, and design. The new Residence Hall is currently in consideration for LEED certification.
- Several decisions were made by the project team to improve environmental performance of the new Residence Hall. The green building features include:
  - 1) Sustainable Sites
    - a. Preservation of green space equal to and greater than the footprint of the building.
    - b. Construction on a site connected to community resources and public transportation
    - c. Storm water properly designed to minimize rainwater water off on campus.

- 2) Water Efficiency
  - a. Water use reduction - Low-flow and water saving plumbing fixtures were used.
  - b. Water efficient landscaping - No potable water used for irrigation.
  
- 3) Energy and Atmosphere
  - a. Additional thermal insulation and new energy efficient windows in the building envelope were used to reduce heating and air conditioning loads.
  - b. A state of the art geothermal heating and cooling system that uses natural groundwater was used to regulate the thermal comfort within the building.
  
- 4) Materials and Resources
  - a. Construction waste management – Large quantities of construction waste were diverted from the landfill through salvage and recycling of construction materials.
  - b. Many of the materials used to construct this building were manufactured within 500 miles, cutting down on transporting materials and goods to the site.
  - c. Many of the products used in this building are composed of recycled materials cutting down on the need for raw materials.
  - d. Students are encouraged to recycle within the building and recycling stations are provided in the public areas to facilitate the recycling process.
  
- 5) Indoor Environmental Quality
  - a. Low-emitting paints and carpeting were used to improve indoor air quality for building occupants
  - b. Additional thermal and lighting controls were provided beyond those required by code so that building occupants have the ability to change the lighting and temperature levels to maximize their comfort.
  - c. The building was designed to maximize the views from the occupied spaces which support the well being of the people within the building.
  
- 6) Innovation and Design
  - a. Green cleaning products and procedures are used within this building to promote a healthy environment for the students living here.
  - b. Green Building education starts with informing prospective students and their families about sustainability with tours of the new residence hall that provide information on how WPSD is doing their part to protect the environment.