



Barnes Foundation



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Architect: Tod Williams Billie Tsien Architects | Partners **Completed:** 2012
Location: Philadelphia, Pennsylvania **Size:** 93,000 SF
Program: Art Education Facility **Sustainability:** LEED® Platinum 2012
Awards: 2013 AIA Institute Honor Award for Architecture, 2013 Building Stone Institute Tucker Award, 2012 Apollo Award for Museum Opening of the Year

The Barnes Foundation is home to one of the world's greatest collections of impressionist, post-impressionist, and early modern paintings. The Foundation's mission is to promote "the advancement of education and the appreciation of the fine arts and horticulture." Originally located in Merion, PA, the new Barnes Foundation building is state-of-the-art and provides expanded facilities for educational programs as well as special exhibitions and visitor amenities. Dr. Albert C. Barnes' original art collection is presented within a 12,000 SF gallery that replicates the scale, proportion, and configuration of the original Merion galleries.

Our work involved comprehensive systems design to state-of-the-art standards. The building is fully climate-controlled with year-round humidity control for all areas of the building. The central ventilation air processing system is provided with energy recovery that filters and precisely controls the amount of raw outdoor air provided into the building based on demand for ventilation. Electrical service taken from a new utility transformer includes a 480volt distribution to serve the mechanical equipment, elevators, and large equipment throughout the building, and is supplemented by a 70kW roof-mounted photovoltaic system to utilize all available on-site power production. A 400kW diesel-fueled emergency generator serves life safety and standby loads. During a utility outage, the HVAC systems will maintain design space conditions in the museum collection areas. On-site fuel storage will allow for over 60 hours of continuous operation at full load. Barnes Foundation is the first major art and education institution in the country to achieve the highest level of environmental certification from the U.S. Green Building Council (USGBC).