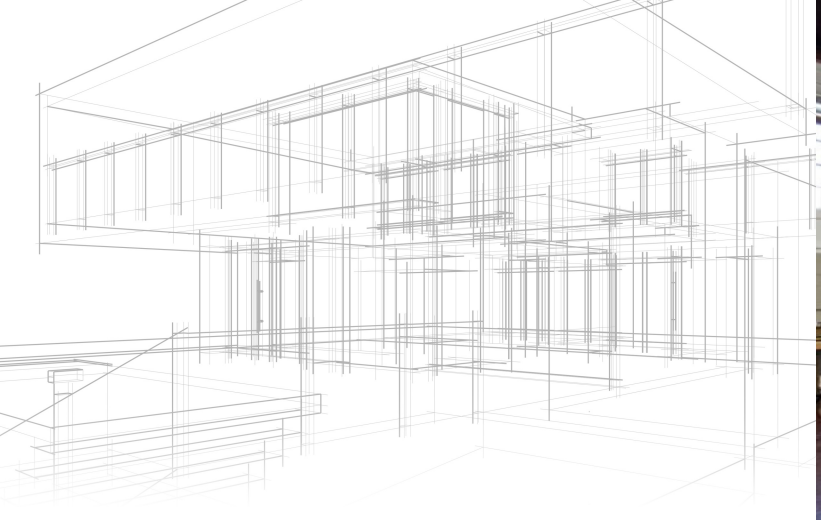

ReVireo®

The Audrie Gardham Ulmer ’37 Center for Innovation and Design

Overview

The Audrie Gardham Ulmer ’37 Center for Innovation and Design at Friends’ Central School is an adaptive reuse project designed by Cicada Architecture that converted a former gymnasium into a 6,800-square-foot, two-story makerspace. Serving as the campus hub for STEAM education, the facility features specialized studios for design, prototyping, fabrication, and robotics. The client pursued LEED certification, ensuring the new space reflected the school’s broader sustainability values. Designing to this standard allowed the project team to minimize the building’s environmental impact, reduce long-term operating costs, and provide a healthy learning environment that actively supports student well-being.

As the project’s LEED consultant, ReVireo managed the complete Leadership in Energy and Environmental Design for Building Design and Construction (LEED BD+C) v4 certification process from design through completion, helping the project successfully achieve LEED Gold certification via several major sustainability benchmarks, such as high-performing HVAC systems, efficient interior lighting, and low-flow water fixtures. ReVireo provided hands on support through multiple submittal revisions and review cycles, navigating complex reviewer feedback to clear every hurdle required for Gold certification.

Client
Cicada Architecture

Building Type
Institutional

Location
Wynnewood, Pennsylvania

Services
LEED

Overview (continued)

To support student focus, the project team utilized low-emitting, transparent building materials and performed a pre-occupancy building flush-out for exemplary air quality. Since makerspaces with power tools can be loud, the design also successfully targeted and achieved LEED credits for acoustic performance and thermal comfort to maintain an environment conducive to learning. The project's overall carbon footprint was further reduced through the procurement of green power, including carbon offsets and off-site renewable energy.

By repurposing the existing single-story gymnasium rather than building from scratch, the client preserved the embodied carbon of the existing structure and avoided the environmental impacts associated with demolition and new construction. The project team also responsibly disposed of construction waste and restored the natural habitat of the surrounding area post-construction, selecting native plant species that do not require irrigation systems.

Finally, the project earned two distinct LEED Innovation points: one for implementing all-gender restrooms to support the school's commitment to inclusivity, and another for Green Building Education, turning the building itself into a teaching tool that integrates directly with the school's STEAM curriculum. The project achieved an overall 38% reduction in annual energy costs compared to the baseline code building, demonstrating the exceptional efficiency of this innovative build.