



## Relocatable Modular Education under 10,000 sq. ft.

Entry Name: The Hill School

Entrant: Modular Genius, Inc.

Number of Modules: 13

Affiliate: Diamond Builders, Inc.

Location: Pottstown, PA

Total Square Feet: 12012

Building Use: Science Lab Classrooms

Days to Complete: 92

### Architectural Excellence

The Hill School in Pottstown, PA is a prestige's, boarding, private school in eastern Pennsylvania. The campus had a major renovation scheduled to their science building on campus. The construction schedule was very tight with a start date after school commenced and an occupancy during the summer of 2019. Modular Genius, Inc. was contracted to design / build a relocatable modular classroom that would house the school's biology, chemistry and engineering departments. The new 12,012 sf building was designed with the main entrance and foyer on the side of the building to fit the campus's pedestrian flow needs. The administration offices and restrooms are centrally located with a hallway that T's off from there. Four Chemistry and Four Biology classrooms are at one end with the Engineering department at the other end.

### Technical Innovation & Sustainability

The Engineering classrooms needed to open with plenty of visual light and electrical outlets spaced for computer workstations and the robotics tables. To accomplish this, the room was made up of three modular sections approximately 42' x 66'. The Biology department specified high end commercial grade overhead-suspended cord reels, one above every student work area cluster and one above the teacher demonstration bench. Custom brackets were designed in the field to allow for a clean and sturdy installation of the cord reels. Counter tops with sinks, cabinets and shelving were installed off site to finish the space. The Chemistry rooms had counter tops and sinks installed along with closets for the glassware and laboratory. The building was built with energy efficient occupancy sensors for lighting and staggered HVAC units for efficient climate control.

### Cost Effectiveness

The site was an old ice-skating rink with a concrete slab. The slab had perfect bearing for the building's piers so that no below grade footings were needed. The challenge was getting the modules to the site, which was a not truck accessible. Modular Genius hired a 350 ton crawler crane that had 202' of boom reach. The crane required 11 trucks of counterweights and rigging. A second crane was used for assembly of this massive crane. The setup, craning of the modules, and demobilization was complete in 3 days. The VB wood studded building was designed with future re-use in mind. The units were built with additional support beams in the roof structure to provide supplementary clear span space so that classrooms can be reconfigured into offices for the second use. Industry standard materials were utilized; including smart panel siding, low E windows, gypsum ceiling, vinyl floor tile and vinyl gypsum. Modular Genius, Inc. provided a turnkey installation and connection of the services.