



Structural Engineer &
Building Envelope
Specialist:
Klepper, Hahn & Hyatt

Owner:
Worcester Central School
District

Location:
Worcester, NY

Completed:
2012

Awards:
•2012 ACI CNY Chapter:
Excellence in Concrete
Design and Installation,
Gold Award
•2012 ACI CNY Chapter:
Excellence in Masonry
Design and Installation,
Gold Award



Worcester Central School District Additions and Alterations

In addition to providing complete Structural Engineer of Record services for this 32,000-square-foot addition, Klepper, Hahn & Hyatt facilitated an initial LEED Charrette at the start of the design phase. The purpose of the charrette was to assess the school district's interests in various sustainable strategies, and to see if they wanted to consider LEED Certification.

Although the decision was made not to pursue LEED, the design team and the owners agreed to use Insulated Concrete Forms (ICFs) for most of the exterior walls of the addition. This resulted in a building envelope with high continuous R-values as well as good air barrier properties and thermal mass. These qualities will reduce the energy demand of the building for its entire service life. The ICFs were as high as three stories.

An insulated air barrier floor system in the gable roof attic of the original 1930s building was added as well. KHH's infrared review of the building revealed large amounts of heat loss from this area. The new attic floor also provided structurally critical bracing of previously unbraced and bowed open-web steel joists.

Pervious concrete pavement were used for select portions of the parking lot and driveway, which served to reduce the runoff to the local storm drainage system.

The project was broken into two phases, which allowed the school to continue functioning efficiently during the work.