



## PROJECT PROFILE

# WORCESTER CENTRAL SCHOOL DISTRICT 2012 ADDITIONS AND ALTERATIONS

### **Awards:**

American Concrete  
Institute of  
Central New York  
Excellence in Concrete  
Design & Installation  
(Sustainable Design)  
2012 Gold Award

American Concrete  
Institute of  
Central New York  
Excellence in Masonry  
Design & Installation  
2012 Gold Award

### **Structural Engineering**

**Services:**  
Klepper, Hahn & Hyatt



**Worcester Central School District Insulated Concrete Form Construction**

### **Owner:**

Worcester Central  
School District  
Otsego County, New York

### **Completion Date:**

Fall 2012

### **Project Cost:**

\$12 Million

## SCOPE OF SERVICES

In addition to providing complete Structural Engineer of Record services for this 32,000-square-foot addition, Klepper, Hahn & Hyatt's Jim D'Aloisio 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 upon the following measures:

- Use of 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 will reduce the energy demand of the building for its entire service life. The ICFs were as high as three stories.

- Installation of an insulated air barrier floor system in the gable roof attic of the original 1930s building. An infrared review of the building by Klepper, Hahn & Hyatt revealed large amounts of heat loss from this area. The new attic floor also provided structurally critical bracing of unbraced and bowed open-web steel joists.

- Pervious concrete pavement 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. KHH used Revit Structural software to produce the contract drawings.