

A LESSON IN DESIGN

In 2010, the Western Dubuque County Community School District began work on a new elementary school to serve approximately 300 students, faculty, and staff.

The Dyersville Elementary School would utilize advanced design, materials, and construction techniques to be more cost effective to build and efficient to operate, while maintaining a pleasing and inspirational aesthetic appropriate for a place of learning.

At an early stage, architect Jesse Bulman of Neumann Monson Architects specified TrusSteel® CFS trusses for the project. His design called for a unique exposed-truss layout above the classrooms, necessitating a product that not only met load requirements but helped to enhance the space visually. After reviewing other available products, Bulman became a strong proponent of the TrusSteel product.

The project carried three unique design challenges:

- ① 6' on center truss spacing
- ② Exposed trusses must have a clean appearance
- ③ Minimize or eliminate lateral bracing within the system

TrusSteel worked with fabricator Cascade Mfg Co, Neumann Monson Architects, Select Structural Engineering and contractor Conlon Construction to develop a solution that addressed all requirements without sacrificing aesthetics, including a unique steel tension rod system utilized to eliminate bottom chord bracing. The school opened in August 2011 and all parties could not be more pleased with the end result. The building is projected to exceed energy code by 65%, with a payback period of less than 10 years.



BY THE NUMBERS

Linear Feet of Trusses:	3,534
# of Trusses:	117
Weight of Trusses:	28,085 lbs.
Spacing (inches):	72"
Sq. Ft. of Building:	42,580
Sq. Ft. Under TrusSteel:	22,033

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...the TrusSteel profile was the most pleasing to us. We found it very easy working with the local fabricator, Cascade Mfg Co...they worked and reworked the trusses, giving us lots of options to look at. Together we developed a solution that was both structurally sound but also aesthetically pleasing, adding lots of visual interest to the classrooms.

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— **Jesse Bulman, AIA, LEED AP**
Neumann Monson Architects



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In the past, I have built a school of this similar design with the use of structural steel. In comparison, the structure of this school was easier and more efficiently erected with the use of the TrusSteel product. Crew sizes were able to be reduced due to the ease of handling, installation, bracing, and fastening requirements of this system.”

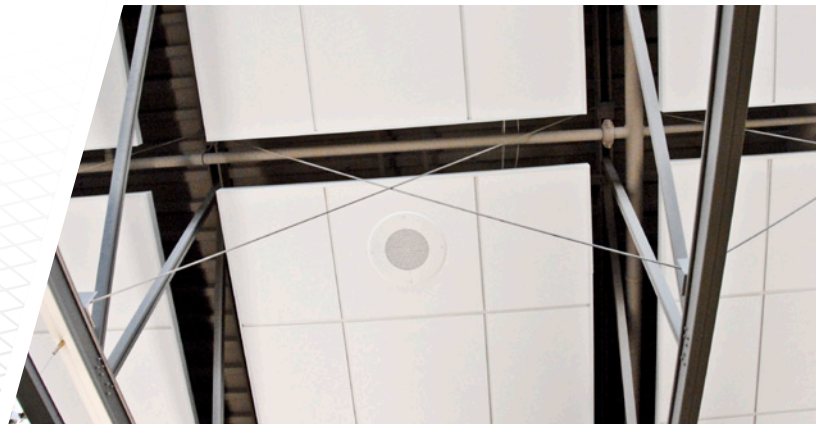
— **Joe Rolwes, Project Superintendent**
Conlon Construction

“...a solution that was both structurally sound but also aesthetically pleasing...”

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The Dyersville school project is another example of just how user-friendly and versatile the TrusSteel product can be. The symmetry of the product is not only more attractive, but allows for greater stability and easier installation. It really is the Cadillac level product with pricing comparable to lesser products.”

— **Tim Noonan, Commercial Division Manager**
Cascade Mfg Co



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