

# BloomSBurg University

A New Roof System for Upper Campus Student Housing complex

**Project:**  
BloomSBurg University  
BloomSBurg, PA

**Ultra-Span Fabricator:**  
Steel-Fab Systems  
Canfield, OH

**General Contractor:**  
Zartman Construction  
Northumberland, PA

**Architect:**  
STV Architects  
Douglasville, PA

In the increasingly challenging commercial/institutional market, one of the sectors that is showing resiliency is university/college construction. According to the National Center for Education Statistics, from 1990 to 2005 enrollment in US universities, colleges, and vocational schools grew 25%, to more than 17 million students. This growth in enrollment has fueled the need for expanded student housing, and along with it the need for cold formed steel components.

The BloomSBurg University Upper Campus Student Housing complex is an excellent example of this proliferation of new student housing units. When completed

in the fall of 2009, the new facility will be home to more than 540 students pursuing higher education.

According to Ralph Renn, Project Manager of general contractor Zartman Construction, the \$30 million Upper Campus complex will offer over 200,000 ft<sup>2</sup> of floor space throughout the three, four-story dorm structures.

Zartman Construction chose Aegis fabricator Steel-Fab Systems to supply the cold-formed steel roof truss system for the Upper Campus complex.

According to Matt Handel of Steel Fab, "BloomSBurg represented one our larger Ultra-Span® projects over the past few years. In total, we shipped more than 1,600 individual trusses to the job site, with the majority in the 48' to 54' clear span range."

When asked if there was anything unusual or unique about this project, Handel replied, "No truss job of this size is ever 'routine.' Some of the interesting aspects of BloomSBurg included a built-in catwalk along the en-





ture length of the building, as well as arched trusses over the entryways. Also, because Zartman planned to lift and set large, pre-fabricated sections of the roof at one time, we needed to work with them to coordinate proper 'pick points' on the trusses."

The concept of lifting pre-assembled sections of trusses was nothing new to Zartman. As Ralph Renn recounted, "Zartman has a long history with this type of hoisting technique. As a metal building contractor, we have been performing 'multiple lifts' of bar joists for years. Our owner, Dave Zartman, is a licensed professional engineer. He has lots of experience designing systems and rigging for safely and efficiently lifting pre-assembled components. In the case of Bloomsburg, Dave adapted our rigging for bar joists to accommodate the larger volume of the cold formed steel trusses."

On-site, Tim Clark, Steel Superintendent and Charlie Knarr Jr., Jobsite Superintendent, had responsibility for executing Dave Zartman's lift plan. "We needed about three weeks to pre-assemble all the sections for one dorm building on the ground. This included all of the trusses, outlookers, fascia, bracing, and partial decking" explained Clark. "The actual lifting and fastening of the pre-fab sections only took two days per building. We figure we cut 2 weeks or more out of each building with this rafting technique."

In addition to the faster build schedule, Clark figures that Zartman Construction realized additional benefits from the "multiple lift". "First and fore-

most, it's just safer. With the majority of the work being done at ground level, we have fewer folks up in the air. This allowed us to keep working, even on windy or rainy days."

Clark continued, "On the cost side, we saved big on equipment- specifically cranes and man-lifts. And, since we own our own cranes and offer third party rental, by minimizing the time the equipment was on our site, we were able to maximize rental revenue at other locations."

Through the innovation and cooperation of construction professional like Zartman Construction and Steel-Fab Systems, the Upper Campus Student Housing complex will be completed on time and on budget. And in fewer than twelve months from now, Bloomsburg University will be able to welcome more than 500 occupants to state of the art student living on its ever-expanding campus.

