

## CASE STUDY: JOHN BROWN UNIVERSITY



Schoolbooks give way to concrete masonry blocks for students in the Construction Management degree program at John Brown University in Siloam Springs, Arkansas. Each year the class project involves the construction of a house in the Siloam Springs community.



*John Brown University construction management students built this home in Siloam Springs, Arkansas.*

In the fall semester of 2005, Jim Caldwell, Professor of Construction at John Brown University, made the decision to use Mason Bond instead of mortar for the construction of the concrete masonry unit (CMU) crawl space on the project house.

Despite having no masonry experience, the 30 students in the class were able to lay 700 blocks in less than five hours. Using a "floating footing" technique similar to a poured patio, the student workers were able to adhere the first course of blocks directly to the footing with

Mason Bond – no need for a mortar bed.



*Despite having no masonry experience, students were able to lay over 700 blocks in just five hours of class time, and were able to backfill the walls the very next day!*

From that point, students merely applied a bead of Mason Bond onto the horizontal and vertical surfaces of each block, set the block and moved on to the next CMU. The walls went up quickly, easily and – according to tests conducted by the National Concrete Masonry Association (NCMA) - up to five times stronger than walls build with mortar. And because Mason Bond does not require mixing, it is easier to apply than mortar, resulting in a 50% improvement in worker productivity.



*CMUs were adhered directly to a floating foundation using Mason Bond™ from ITW TACC.*

According to Professor Caldwell, "Mason Bond is an excellent product for block crawl space foundations. The holding power is remarkable. We were able to backfill the wall the next day without any fear of cracks developing."

Will Mason Bond be going back to school soon? "We will definitely use Mason Bond again," says Professor Caldwell. Class dismissed.

### PROJECT SPECIFICATIONS: JOHN BROWN UNIVERSITY PROJECT HOUSE

- Construction management class project involving 30 students
- Used over 700 concrete masonry units (CMUs) in crawl space
- First course laid directly onto floating floor foundation using Mason Bond™
- No experience necessary to use Mason Bond™ successfully!

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