Winery Foundation Spraying

by Ted Uram

David Armstrong of Roanoke, Mo. is no fool. Like many savvy shoppers, he clocks a lot of research hours before making any purchase. It's the smart thing to do. So when looking for a solution to resurface the block wall foundation of an old homestead building on property he had purchased, he spent lots of time on the Internet, several hours of which were on MortarSprayer.com

"I searched numerous websites to try and see what to do with this foundation," David explains. "We wanted the solution for the foundation to be something we could do as a do-it-yourself project."

An inexpensive solution was also important. The property on which the old house rests is something of an investment in the future. One day soon, David hopes the building will be surrounded by a thriving winery."

Approximately eight acres came up for purchase at an estate sale," David explains. "We purchased the property with the intention of creating a winery."

In addition to the building with the ailing foundation, a 3,700-square-foot, 1890s era, three-room schoolhouse also rests on the property.

"We hope to renovate that structure, as well, to serve as the main building for the winery," David says.

First things first. The first hurdle was the small out-building.

"This little building sits on the corner of the property," David explains. "At one point, we thought we were going to fix it up and flip it, but then we decided not to do that."

Since the building did once serve as a residence, David considered making it habitable to rent. But that plan was scrapped as well. It was decided the building would be incorporated into the winery, and while there are still no concrete plans for exactly what purpose it will serve, the building most definitely needs work. Regardless of its new role as a winery structure, the foundation of the building was in desperate need of a makeover, and other issues arose.

"The whole project involves a new roof, insulation, and new siding, as well as fixing up the foundation," David explains. "This block foundation is under the oldest part of the house, under about two thirds of it."

Like many of the old Missouri buildings built around the turn of the Century, the small structure is supported by a block foundation. Mortar used to set and finish blocks in the old days was not nearly as efficient as it today, and several patches of block on this home had to be reset and mortared before any resurfacing could be performed.

Using jacks, the house was lifted. Failed block was replaced, and all of the loose blocks re-mortared. David was ready to tackle the foundation.

Even after straightening and **re-mortaring** there was some surface unevenness, so David opted for a <u>surface bond mix</u> enriched with glass fibers, which he laid on pretty thick using <u>a sprayer from MortarSprayer.com</u>. With the help of a mixer mounted on the three-point hitch of a small tractor, he was easily able to complete mixing and be underway.

"We combined that mixture with a stone-veneer mix (Quikrete) that has high-adhesive qualities. We covered it with a pretty quick coating."

Once that coat had set up, David came back over with another layer of stone-veneer mix combined with <u>Quikrete sand topping mix</u>. This succeeded in hiding any of the remaining glass fibers still sticking out.

The amazing part about all of this is that David did not have an adequately sized compressor to push the flow. What he did have was two smaller compressors for powering air tools. His solution was to tie the two compressors together.

"They had small tanks with fairly low CFM pumps," David says. "We knew that we had to increase the rate of compression." Having enough compressed air was also an issue.

Tying the two pumps together using a couple of ten-gallon air pigs did the trick.

"The guy that was helping me with the project is a roofer by trade. He already had his compressor set up for the roofing nails, so we tied his compressor in with mine." The two compressors were run through one manifold which fed the sprayer. "It worked great."

Since David had never sprayed plaster before, there was a learning curve involved. But it

didn't take him long to catch on.

"It took some time, but we eventually had a good feel for how to keep the tool moving, when to pull the trigger, etc."

His mix kept leaning toward the dry side, so it also took a little playing to get the right consistency. "When we had fingers of mix coming out of the holes that didn't drip on the ground, that was what worked best." From start to finish, the entire job only took about two hours.

All in all, David was pleasantly surprised with the results. "I thought it was going to be a dull, concrete gray, but it dried up a little whiter than I expected and looks real nice." David says he doesn't know how he would have completed the job without the sprayer, and he was quick to justify his purchase.

"There's going to be some foundation work on the schoolhouse, too," David adds. "This will work well for matching the original foundation."

David says that since he's completed this project, he has all kinds of additional potential projects floating around in his mind, such as stucco siding on some buildings, and even a compost containment bin.

"I don't know which of these projects will happen, but it's certainly opened our eyes to a whole wide range of potential projects. It's just a new method of construction that we hadn't considered possible before."

In the meantime, the foundation of the house is complete. And while the grapes mature, David has his eye set on the schoolhouse.

Back to Winery Foundation Spraying

Back to MortarSprayer.com

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