



## SPEC MIX BRICKLAYER 500® decides who is the, "World's Best Bricklayer," for 2006.

Las Vegas is a town that loves winners and January was no exception. The Masonry Industry won big with the most successful SPEC MIX BRICKLAYER 500® competition held there to date. Another big winner was Patrick Baxter, sponsored by Summit Concrete & Masonry, a 26 year old from North Branch, Minnesota. Patrick beat out 19 of the best bricklayers in the world by laying 780 brick in 60 minutes. He did it before a record estimated crowd of 3,500 to win the 2006 SPEC MIX BRICKLAYER 500 at the World of Concrete/World of Masonry in Las Vegas, Nevada, on Wednesday, January 18, 2006.

Patrick won the grand prize, a 2006 Ford F-150 XLT, SuperCab, 4x4 Truck, \$5,000 in cash and thousands of dollars in sponsor prizes, such as a Target saw, Diamond blades, and Marshalltown tools. It was Patrick's first win in the premier bricklaying competition held once a year at the WOC/WOM show.

Considered the largest construction trade show in the country, the WOC/WOM show had a record attendance this year of 80,000 plus attendees and 800,000 plus sq.



The competitors keep their eye on the grand prize, a loaded 2006 Ford F-150 XLT, SuperCab, 4x4 Truck, part of the \$100,000 in cash and prizes this year.



A scene of Patrick Baxter on his way to win 2005 SPEC MIX BRICKLAYER 500® before a record crowd of masonry fans in Las Vegas.

feet of booth displays.

The show was a perfect setting to provide a cheering crowd of masonry fans for the competitor.

The SPEC MIX BRICKLAYER 500 had its largest offering of cash and prizes ever, and over \$100,000 was up for grabs to the 20, two-man teams who competed. Starting at 1:30 PM each team consisting of a mason, and a mason tender battled it out for 60 minutes to build a 26-foot, double wythe brick wall.

Mike Boll, of Boll Masonry, from Oak Lawn, Illinois, came in 2nd place with 741 brick. Mike won **(continued on next page)**



Patrick Baxter (left) and his mason tender Bill Larson (right), take to the Hydro Mobile scaffold to accept the keys to the Ford truck, the winner's check for \$5000, and the Golden Trowel



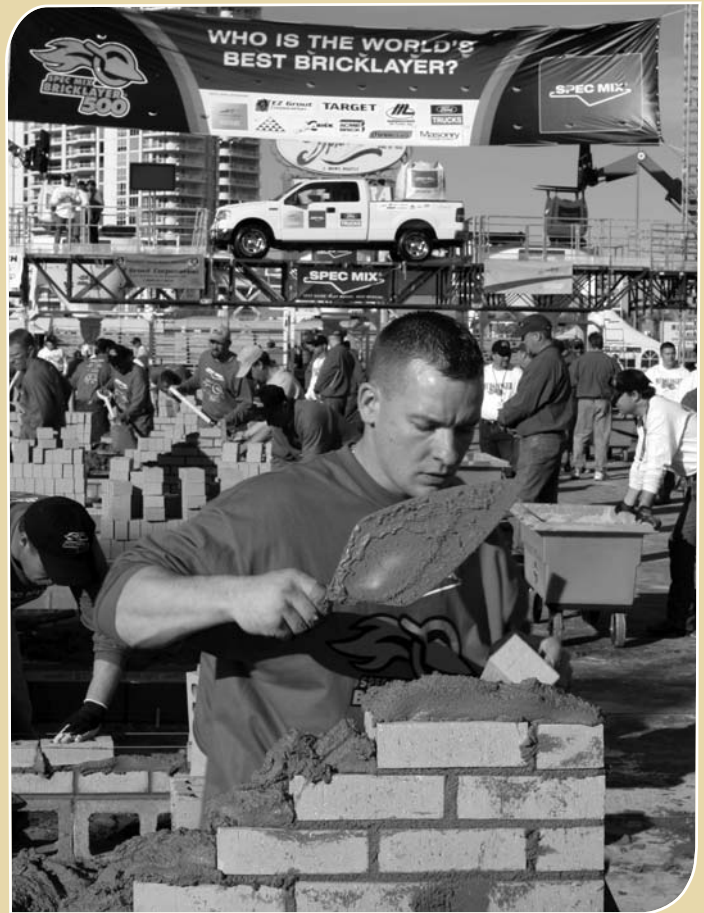
(continued from Page 1) \$4,000 in cash and thousands of dollars in sponsor prizes like a loaded Marshalltown tool bag. Mike was the 2005 SPEC MIX BRICKLAYER 500 winner. In 3rd place Phillip Veal, of R&G Masonry Contractors, Inc., Jonesboro, Arkansas, with 708 brick. Phillip won \$3,000 in cash and thousands of dollars in sponsor prizes including a custom Crick level.

Bill Morrisette, of Morrisette Masonry, Chickamauga, Georgia, won the competition's second highest award of \$7,500 in cash and thousands in sponsor prizes which goes to the winner of the TOP CRAFTSMAN Award. Prior to the start of the event Bill, who was the most senior of the competitors, was asked what he hoped to win, to which he responded, "I don't care about all the rest I just want to win the TOP CRAFTSMAN." When the dust had settled Bill had laid 603 brick and built the, "Most sellable wall," to make his goal.

The TOUGHEST TENDER Award, given for a prelim event held just prior to the SPEC MIX BRICKLAYER 500 competition, went to Mike Luhti, (tender for Jaysen Walters), sponsored by Quikrete Wisconsin, Hartford, Wisconsin. Mike's winning time was 18.6 minutes. Mike won \$2,000 in cash and hundreds of dollars in sponsor prizes.

An exciting new twist was added to the competition this year when CBS News Sunday Morning, with Bill Geist reporting, filmed the competition for a segment that aired nationally on Sunday, 9:20AM CST, January 22, 2006. This was great exposure for the industry and the SPEC MIX BRICKLAYER 500. Everyone involved with the event was very pleased with the result. To view this clip go to the SPEC MIX Web site, [www.specmix.com](http://www.specmix.com)

Brian Carney, VP, General Manager of SPEC MIX said, "Everyone at SPEC MIX, and our generous sponsors, would like to congratulate the winners. This has been an outstanding competition for the Masonry Industry. This unique event promotes to the public the tremendous skill and hard work masons bring to the workplace everyday. To the fans, our sponsors, the competitors, judges, the SPEC MIX Mudslingers, and everyone who contributed to the competition's success, thank you." (continued on Page 7)



Patrick Baxter, bricklayer, setting up his leads on his winning wall. The grand prize Ford F-150 truck looms in the background as Patrick is about to answer the question.

*"This has been an outstanding competition for the Masonry Industry. This unique event promotes to the public the tremendous skill and hard work masons bring to the workplace everyday."*

— BRIAN CARNEY VP, GENERAL MANAGER, SPEC MIX



Bill Morrisette, from Morrisette Masonry, Chickamauga, GA, was the TOP CRAFTSMAN Award winner. Bill is seen here cleaning up his wall in the final seconds of the competition. He impressed everyone with his performance and the quality of his 603 brick wall.

# The 2006 SPEC MIX BRICKLAYER 500® brings it's own action to Las Vegas.



## Photograph Directory

1. Phillip Veal, the 3rd Place winner on the winning stand with his new Target saw and check for \$3,000.
2. Judge Curt Meyer goes over the final competitor scores with Nick Blowhowiak, SPEC MIX Central Regional Sales Manager.
3. A happy Mike Luthi celebrates his TOUGHEST TENDER win holding his Crick Level and his \$2,000 check high.
4. Mike Boll (right), the 2nd Place winner, and his mason tender, Ken Huizenga (left), on the winners stand with a \$4,000 check.
5. The largest competition crowd ever, with an estimated 3,500 attendees.
6. Bill Geist interviewing the Boll Family for the national broadcast of CBS News Sunday Morning.
7. The SPEC MIX Mudslingers fired off hundreds of t-shirts into the screaming crowd.
8. SPEC MIX Mudslingers line up for a group photo just before the event begins.

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## IWR Masonry Systems and Efflorescence in Newly Constructed Walls.

The Desert Southwest experienced higher-than-normal rainfall during the winter and spring of 2004 - 2005. The rainfall quantities they experienced, although high for the Desert Southwest, are considered normal elsewhere within the United States. The unusually rainy conditions in the Desert Southwest have led to numerous complaints regarding efflorescence, even when integral water-repellant (IWR) mortar and concrete masonry units (CMU's) were used.

The common misconception is that an IWR masonry system is immune to the ingress of moisture and efflorescence. IWR mortar and concrete masonry units simply reduce the amount of water that penetrates the masonry system. There is no such thing as a waterproof, or water-tight, masonry wall. When moisture is allowed to enter the masonry system, with or without IWR, efflorescence is a possibility.

There are many sources of moisture in new construction. Water that enters the masonry system, either by wind driven rain, uncapped or unprotected top courses, or moisture contributed by core-fill grout will take the path of least resistance when exiting the wall. The moisture within a masonry system migrates toward the surfaces where evaporation is occurring. Once the moisture, which is laden with soluble salts, evaporates the salts re-precipitate on the masonry surface.

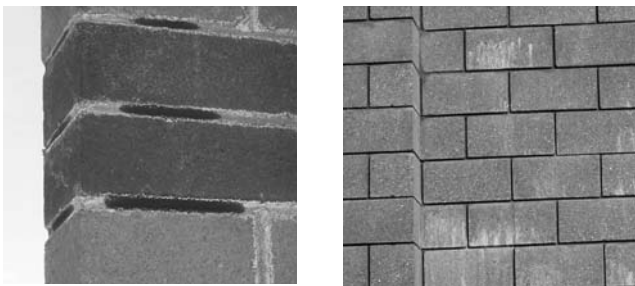


Photo #1 (left): Photograph of a newly constructed masonry wall. Note damp mortar beds and the efflorescence occurring primarily on the mortar joints

Photo #2 (right): Photograph of another newly constructed masonry wall. Note the presence of exudations coming out primarily from the CMU's.

The moisture will typically migrate through the mortar more easily (Photo #1) due to differences in porosity and the nature of the mortar and CMU bond surface at early ages.

The CMU's are much more mature than the mortar because they are steam cured and allowed to cure further in the yard before being shipped to the project. Sometimes water-soluble salts can exit through CMU's through interconnected compaction voids (Photo #2). This is highly dependent on the porosity of the CMU's.

Where are the soluble salts coming from? Another misconception regarding efflorescence is that it is contributed solely by the lime in the mortar. Although efflorescence is usually found to be a calcium-rich salt, the efflorescent salt must be identified so that the source and mitigative measures can be identified. The soluble salt in Photo #1, which is an IWR masonry system, was characterized by scanning electron microscopy (SEM) in

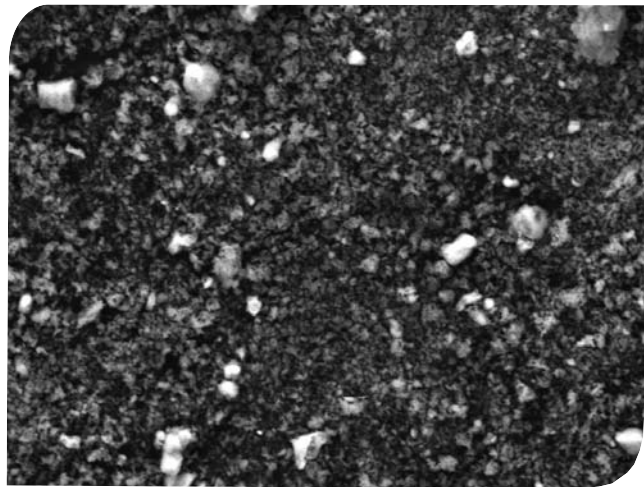


Photo #3: SEM image of the efflorescence in Photo #1. The EDAX indicated the efflorescence was comprised of sodium (Na), sulfur (S), and potassium (K).

conjunction with energy dispersive analysis of x-rays (EDAX). The SEM analysis provides a view of the microstructure, while EDAX identifies the identification of chemical composition. The soluble salt in this instance was identified as sodium sulfate (Photo #3), which would not have originated from the mortar. The source of sodium sulfate efflorescence can be from contamination of the aggregate, storing CMU's on sulfate-rich soils, or use of well water that contains sulfates. Due to the high solubility of sulfates, efflorescence can manifest itself more quickly than calcium-rich salts. The pore solutions within cementitious pastes are in essence a saturated calcium hydroxide

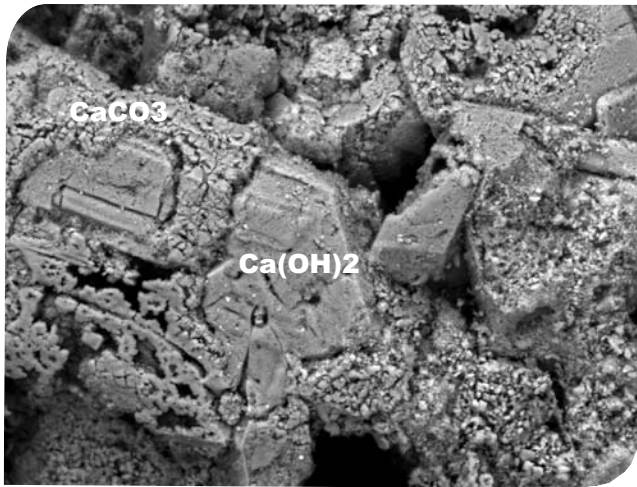


Photo #4: SEM image of the efflorescence in Photo #2. The efflorescence is comprised primarily of Calcium (Ca). The SEM image shows the crystal morphology of the crystals within the efflorescence material. In this instance portlandite [Ca(OH)2] is in the process of being converted to calcium carbonate (CaCO3)

solution and, therefore, will come out of the mortar and/or CMU relatively quickly. Lime run is an exudation of either calcium hydroxide or calcium carbonate. Typically, lime run will originate as portlandite and convert to calcium carbonate when exposed to atmospheric moisture (Photo #4). How can efflorescence be minimized? Using SPEC MIX® IWR mortar in conjunction with treated CMU's can reduce moisture penetration throughout the masonry structure. This reduces the quantities of calcium hydroxide, which is one of the major contributors to efflorescence. The best way to minimize efflorescence is to protect new masonry by covering wall cavities even if they are grouted. Water can get around grout through cracks or consolidation voids. As a consequence the moisture migrates through the CMU's and mortar resulting in efflorescence upon drying. Photo #5 illustrates the importance of covering grouted cells.

How can walls exhibiting efflorescence be cleaned? There are numerous proprietary products designed to remove efflorescence and staining. Different efflorescent salts may require different cleaning strategies. For instance, sulfates can be cleaned using a dry, stiff brush. Using water as the only cleaning method for sulfate efflorescence will sometimes make it worse. When using proprietary cleaners for lime run or calcium carbonate, the manufacturer's instructions should be followed closely. Sealing the wall surfaces with a membrane-forming sealer is not a good solution for mitigating efflorescence. Hydraulic pressures are generated behind the membrane

sealer, which could lead to spalling of the masonry or clouding of clear sealers.

Why does efflorescence occur less frequently in older masonry structures? One reason is that in finished structures the ingress of moisture is minimized because the tops of masonry walls are typically capped and sealed. Another reason efflorescence occurs less frequently in older structures is that when the mortar continues to cure, hydration products fill in the gaps within the paste and bonding surfaces that allows moisture to migrate through



Photo #5: Photograph of a newly constructed wall with grouted cells. Note that the grouted cells were not covered. Shortly after a rain event efflorescence began to appear in the upper courses of the concrete masonry wall. This could have been prevented if the top of the wall was covered prior to exposure to rain.

the mortar. Autogenous healing seals microcracks making them less able to convey moisture. As mortar continues to age, the calcium-rich constituents convert to calcium carbonate. Calcium carbonate, as mentioned previously, has a relatively low solubility.



Mark Lukkarila is a technical services manager at SPEC MIX, Inc., Mendota Heights, Minnesota. Mark is a geologist with extensive experience in petrographic analysis. He sits on the ASTM committees C12 and C12.09, is a voting member of C9, C9.43, C9.46, C9.65, and is a member of the task groups for C12.05 and C1324. He is also chairman of the ACI 221 Aggregate Committee, and is a voting member of the ACI 524, Plastering Committee. Mark is also a member of the Board of Directors for the American Shotcrete Association.

## apprentice of the month

### The Story of a Student who Challenges himself and a Dedicated Instructor.



"My Dad said I couldn't do it," Geoffrey MacEwen says as he explains how he eventually took the comment as a challenge and worked hard to prove his Dad wrong.

His instructor, William Adams of Oswego County B.O.C.E.S. (B. Ramer Tech), saw Geoff MacEwen from another perspective. "When he started in May of 2004, I had trouble keeping him focused. By the fall of 2004, I could see a dramatic change. His attitude improved dramatically, and his trowel and level skills accelerated."

"The most important thing Mr. Adams told me," MacEwen says, "is that nothing is perfect, but you can get pretty darn close. That's what I started working towards."

After just 18 months of training, Geoff MacEwen had won a regional bricklaying contest and the New York State competition. He advanced to the National Masonry Contest held each June in Kansas City, Mo.

MacEwen's proud parents give much of the credit to Adams. His Mother, Silvan MacEwen, explains, "Let's give credit where credit is due. Geoff's instructor has had

Geoff MacEwen works to complete his composite project during the 2005 SkillsUSA National Masonry Contest held last June at the Bartle Hall Convention Center in Kansas City, Mo.

several students (7) make it to the nation competition. Bill Adams can both identify and develop the talents of his students. His encouragement and faith in Geoff had a most positive impact on Geoff's life, both in his skills as a mason and as a person."

Adams returns the favor saying "Geoff is a very polite and well-mannered young man. His skills and his attitude will make him an asset to any company."

Since receiving his diploma, MacEwen has been employed by Edgerton Masonry, working as a tender/apprentice on projects throughout Central and Upstate New York. And, though he no longer races competitively, motocross remains his favorite hobby.

(continued from Page 2)

A new addition to the event this year was professional MC Tom Clark who did a great job of involving the crowd and doing promotional spots for the sponsors. Tom has an impressive background in broadcast and we hope to have him back in 2007.

In addition to the national CBS News coverage seen by 5.23 million viewers, the competition was covered on local Las Vegas TV and newspapers. There was AM and FM radio and newspaper coverage of some winners in their metro markets totaling millions of viewers which was great exposure for their sponsors, and the masonry industry itself. The competition will also be featured in industry and union newsletters, and upcoming trade publication articles and ads, so keep an eye out.

The SPEC MIX team is already working on exciting new ideas that will build on this year's success and the momentum the event has generated at the WOC/WOM.

The road to Las Vegas begins at the regional competition level so if you are interested in getting involved as a competitor, competitor sponsor, regional or national event sponsor, please call Nick Blohowiak, SPEC MIX Central Regional Sales Manager, 920-661-0940. Detailed competition entry information for 2007 will also be available at [www.specmix.com](http://www.specmix.com) beginning in April, 2006.

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For information on advertising in Trowel Tales, contact Jeff Farmakes, editor, at (651) 651-8966 or via e-mail at [jfarmakes@specmix.com](mailto:jfarmakes@specmix.com).



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**SkillsUSA National Leadership  
and Skills Conference**  
**Masonry Competition**  
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