

# Moonlight Amphitheatre goes live with a new life

BY STEPHANIE BROWN

The Brengle Terrace Park amphitheatre, which is located in Vista, Calif., is home to Moonlight Stage Productions, a theatre production company that puts on plays throughout the summer months. Originally constructed as a bicentennial project in 1975 by the Vista Foundation, now the Moonlight Cultural Foundation, the amphitheatre includes a small concrete stage and a terraced seating area.

A summer series of Broadway musicals, such as "42nd Street," began in 1981 and continue to entertain audiences today. In addition to being used as a theatre, the amphitheatre is used for public events including the Vista Fourth of July celebration, youth theatre productions, concerts, fundraisers and church services.

With more than a million people having enjoyed the amphitheatre since the early 1980s, it was time for revitalization. The stage and temporary backstage facilities were in need of upgrading in order to continue the city's cultural and performing arts program. A master plan, adopted in 1991, detailed the necessary upgrades. In 1992, the city hired an architectural firm to design a new stage house and permanent backstage facilities. In 2003, the initial phase of the project was complete including the installation of underground utilities and a backstage fire access road. Finally, in November 2007, the city started the design/build process and the construction phase began in September 2008.

As part of the plan, the stage and backstage facilities were replaced with a stage house and permanent support facilities. It was decided to construct a covered stage and backstage support facilities to improve safety, security and protection from the elements for personnel and equipment.

The five-story stage, built by Sundt Construction ([www.sundt.com/construction-program-management](http://www.sundt.com/construction-program-management)), required unique formwork solutions in order to satisfy the stringent project specifications, which called for colored concrete, a very difficult reveal pattern and an architectural fair-faced finish.

Key features of the project included a fly loft with an electronic rigging system for scenery and equipment, backstage restrooms and dressing rooms, rehearsal room, workshop, costume room, orchestra pit, permanent

theatrical equipment infrastructure, lighting and audio/visual equipment packages. New public restrooms and disabled access upgrades were also new features.

Due to the fact that this was a replacement amphitheatre, the jobsite was restricted and access was limited. In addition, the contractor was working under a very tight schedule that was dictated by booked performances and did not allow for delays. Rain forced Sundt to work around the clock in two shifts to complete the concrete work on time.

In order to meet the tight schedule requirements as well as accomplish the architectural features, Sundt chose Doka ([www.dokausa.com](http://www.dokausa.com)) as their formwork supplier. Doug Bushey, Doka account manager, said, "The convenience of pre-assembled gangs delivered to the jobsite was attractive to Sundt as it saved them costly onsite labor time. Further, Doka's formwork solutions were economical and worked well to conform to the architect's requirements."

The project used Doka custom pre-assembled Top 50 gang formwork in conjunction with MF 240 climbing formwork for all vertical wall lifts. The use of Doka's Top 50 gang forming equipment provided custom formwork that was precision-assembled and delivered to the site, ready for immediate installation.

The Top 50 gang forming equipment was chosen because the panels could employ customer-provided plywood and could be built to the strict tolerances and with the requirements dictated by the architect. A total of 8,145-square-feet of formwork was provided for the north and south walls, which were re-configured and cycled to the east and west walls. Each wall was poured in five lifts, with four lifts using the MF 240 rollback assemblies.

The system can be configured for fast and safe stripping of the formwork, after which the interior forms can be immediately reconfigured and rapidly reset into the next casting. Doka's ability to conform standard components to the unusual design and adapt to quickly changing conditions made the transitions from pour-to-pour simple. Bushey noted that the forming system is composed of steel walers and H-20 timber beams that may be strategically located to accommodate almost any tie pattern.

"This flexibility allowed Doka to place the tie holes and reveal strips wherever the architect desired without compromising the structural integrity of the forms," Bushey said.

Sundt was pleased with the service aspect of the Doka USA team. Greg Rosa, the project's general foreman, noted that Doka was always available when they needed assistance. Their sales, engineering, distribution and field-service all worked hand-in-hand during this project to make certain that Sundt had all of the parts, drawings and product education necessary to erect the materials without delay.

Construction of the concrete shell was completed in March, just in time for the 2009 summer theatre season.

### **Rapid Set Eisenwall premium cement help meet short deadlines**

When the 34-year-old Moonlight amphitheatre in Vista, Calif., needed to be replaced on a fast-track schedule, CTS Cement's Rapid Set Eisenwall Premium Cement was the necessary material to complete the job. Eisenwall was used on the back and both sides of the amphitheatre, as well as underneath the stage.

With traditional cement, the project might have taken weeks, but with Eisenwall, the project was completed in a couple of days. And, because this project was behind schedule, it was the perfect solution because the day the contractor was plastering was the day they were supposed to be completing the project.

Fortunately, Eisenwall is the one of the few International Code Council approved products in the United States that can be scratched and browned from a 1/2-inch to 2-inch thickness in one day, as well as offer psi strengths beyond any portland cement application. As such, Creighton Maher of CTS, said the plaster contractor was able to skip the scratch, 48-hour cure and seven day wait process before applying the color coat. "Using Eisenwall saved two to three weeks," Maher said.

Eisenwall contains Rapid Set cement, a hydraulic cement that cures completely in a matter of hours. Rapid Set cement is strong, durable, fast-setting and has very low shrinkage. It is a proven solution in a variety of applications including use for concrete highway repairs that have to be open to traffic in just a few hours. He said the lack of excess water in combination with the fast-setting characteristics of Eisenwall allow for much earlier application of finish coats and coatings compared to Portland-cement-based products.

Approved Eisenwall applicators are listed at [www.Eisenwall.com](http://www.Eisenwall.com).