

Correctional NEWS

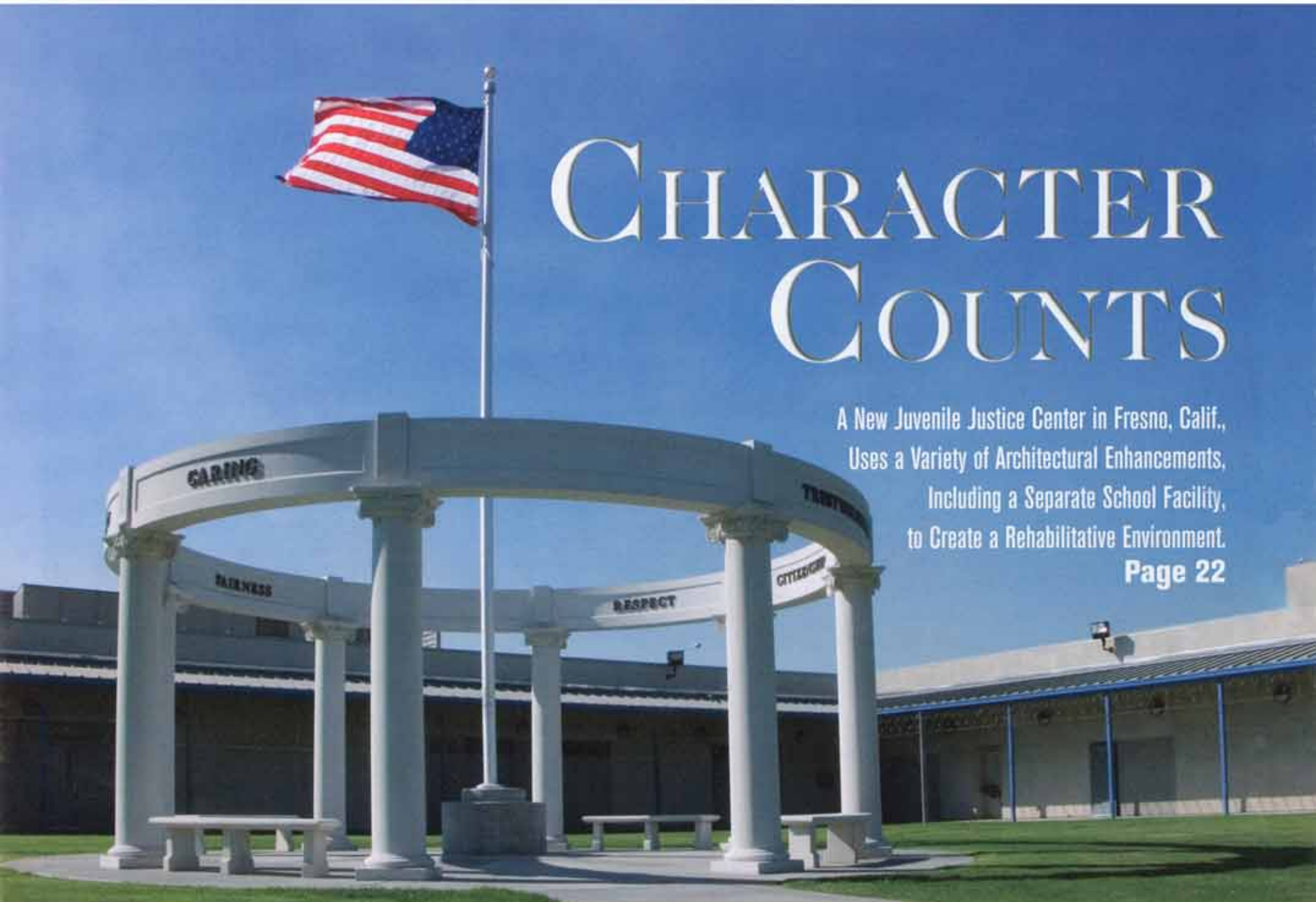
design, construction,
maintenance & operations

An Emlen Publication
www.correctionalnews.com

MARCH/APRIL 2007
VOLUME 13, NUMBER 2

CHARACTER COUNTS

A New Juvenile Justice Center in Fresno, Calif.,
Uses a Variety of Architectural Enhancements,
Including a Separate School Facility,
to Create a Rehabilitative Environment.
Page 22



Q&A

As one of the leading architectural firms in the Justice market, DMJM is involved with corrections projects throughout the United States and the world. Four of the firm's leading employees - Andrew Cupples, Greg Offner, Kenneth Jandura and Mike Retford - spoke about design and planning trends for correctional facilities during a conference call with *Correctional News*.
Page 31

Trendspotting

Stephen Carter examines population projects for the U.S. correctional industry and what that means for the agencies tasked with safely operating correctional facilities. A cursory look at the numbers shows that the industry could be headed for difficult times if the current incarceration rate continues.
Page 20



Carter

Green Scene



The medium-security federal prison in Butner, N.C., is the only federal facility that is LEED certified. Planners for the facility discuss the sustainable design concepts that were implemented during the planning and construction process.
Page 26

Butner Federal Prison Offers Lessons in LEED Certification

BUTNER, N.C. — Sustainable construction is becoming a standard practice throughout most construction markets in the United States, but due to the highly secure and rigid nature of cor-rectional facilities, green building tech-niques are still rare at prisons and jails.

However, a recent Federal Bureau of Prisons project reveals that if planners take the proper steps early in the process, LEED certification — the U.S. Green Building Council’s measure for rating sustainable design — is possible without having a major effect on operations.

Planners for the medium-security Fed-eral Correctional Institute III in Butner, N.C., which was awarded LEED certification in November 2005, found that many of the components needed to qualify for certification were already in place; it was just a matter of organization and documentation.

The facility marks the first — and only — LEED-certified federal prison.

“Most of the change to the construction operation was the documentation that had to be put together for



the LEED submittal,” says Bill Downs, senior project manager for the FBOP. “There was a lot of reporting of what we were doing right from the beginning, so we could determine what was planned and what was implemented.”

The \$98 million project included 530,295 square feet of new construction with room for 864 cells (768 general pop- ulation, 96 isolation/ segregation).

Moseley Architects, which worked

with Hensel/Phillips on the design/build project, presented the concept of sustainable design during the solicitation process.

“They accepted it and they gave us an awful lot of pats on the back when we went to be interviewed for the project,” says Taylor Muniz, project manager at Moseley. “They were kind of excited to see something happen and in the end, I think that shows.”

Downs says the proposal was favorable to the bureau’s facilities department because it suggested a reduction in the cost of operation at the facility.

Sustainable Aspects

Moseley set out to earn basic certification, which requires 26 points to qualify. Facility planners can also attempt to obtain silver (33 to 38 points), gold (39 to 51 points) and platinum (52 to 69 points) certification.

“We tried to go a little higher just in case the Green Building Council didn’t accept all of the credits,” Muniz says. “They didn’t accept one of the credits, but it was anticipated.”

Upon completion, the building was certified with 30 LEED points in several construction categories:

- ➔ Seven out of 14 possible points were obtained in the sustainable sites category. The

facility earned points for site selection, providing bicycle storage (storage and shower/changing facilities are provided for more than 5 percent of building occupants), alternative fuel refueling stations, and specified parking for alternative transportation. Additional points were earned through reduced site disturbance, storm water management, and an exterior designed to reduce the heat island effect.

- ➔ Four out of five points were awarded in the water efficiency category. Low-growing grasses located



throughout the site make a permanent irrigation system unnecessary. Lavatories, showers and sinks are outfitted with low-flow plumbing fixtures. These strategies have resulted in a more than 33 percent reduction in the amount of water used at the facility, compared to its similar, conventionally built buildings.

- ➔ Six out of 17 points were awarded in the energy and atmosphere category. The facility received points for optimized energy performance and reduced ozone depletion.

- ➔ Four out of 13 points were awarded in the materials and resources category. During construction, 70 percent of waste was recycled, 22 percent of materials were manufactured within 500 miles of the site, and more than 5 percent of materials contained recycled content.

- ➔ Six of 15 points were awarded in the indoor environmental quality category. An IAQ plan was created during construction and before occupancy. Low emitting materials were used and steps were taken to keep contaminants out of the facility. “We had to put floor mats at each of the entrances to the building to keep debris out of the facility, which apparently could enter the HVAC system and cause problems,” Downs says.

- ➔ Three of five points were awarded in the innovation and design process category. The facility received points for using green cleaning products, and by having a LEED-accredited professional and a post-occupancy review.

Overall, Downs says it was an easy process because of the team that was assembled.

“It took a lot of coordination and

detail-oriented people who were interested in making sure everything was recorded and documented properly,” Downs says.

In some aspects the process was similar to other federal prison construction projects, according to Downs.

“It really was almost business as usual for the most part because a lot of the equipment that we put in is energy efficient already,” Downs says. “The components are out there to enhance whatever construction is going on and they are not significantly higher in price. A lot of the manpower at the Butner project went to man-hours doing reports, documenting and putting statistics together that you don’t usually do with a construction job.”

Tips, Future Projects

Muniz says the Butner facility was successful primarily because of open communication from the onset. During early planning stages, the representatives from Moseley, Hensel/Phillips and the FBOP gathered to discuss what LEED points were feasible to obtain.

“You have to set the table and make sure that everybody is on board,” Muniz says. “You don’t want to go through the process and have someone say, ‘Let’s throw this out.’”

Although the Butner prison successfully achieved LEED certification, it may remain the only LEED-certified FBOP facility for the near future. Bureau officials could not confirm any planned facilities that are aiming for certification. ➤