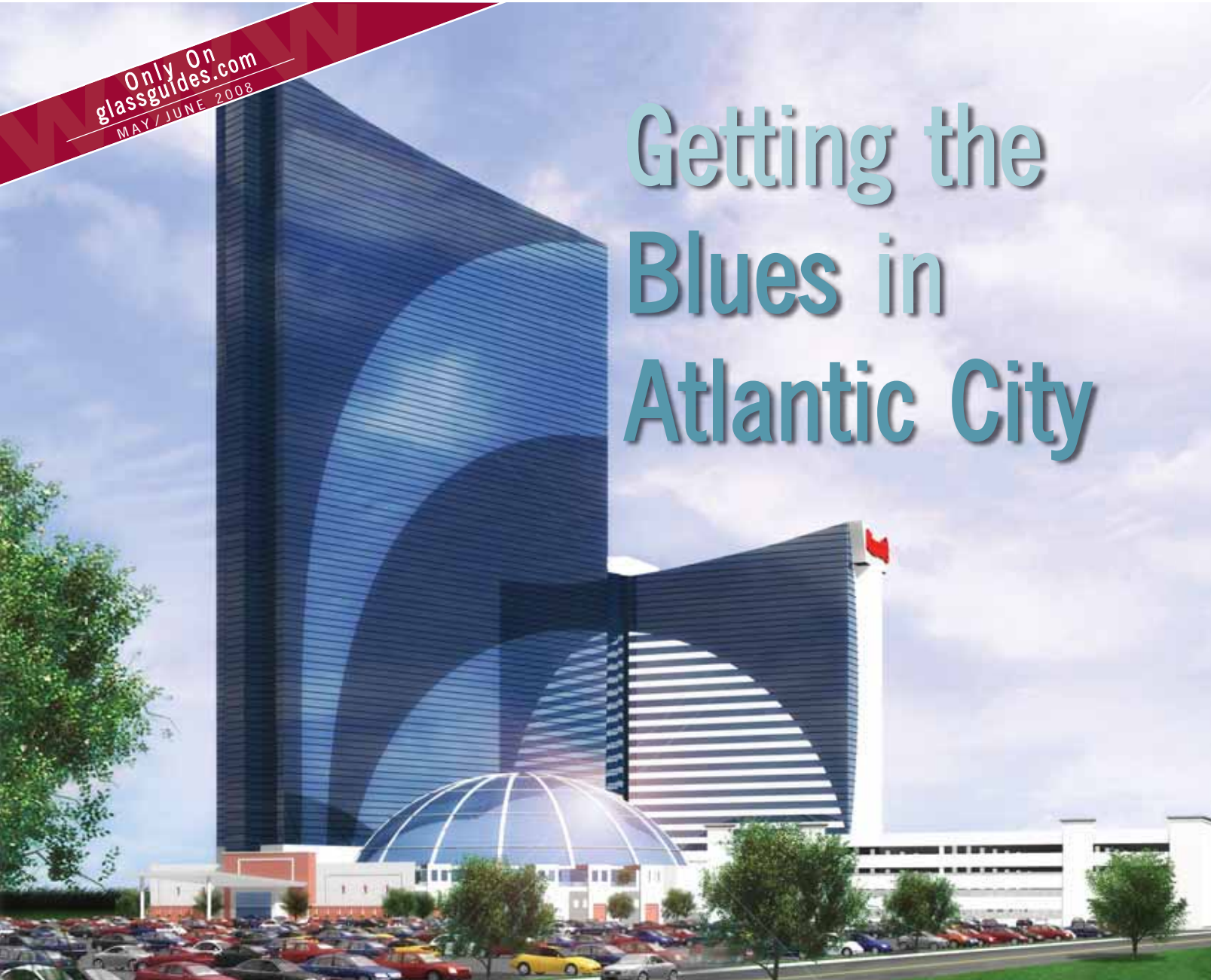


Getting the Blues in Atlantic City



Finding the Right Hues to Make a Strong Design Statement at Harrah's Expansion Was a Challenge

How can an architect make a casino stand out? Friedmutter Group was charged with this task when designing Waterfront Tower, part of the \$550-million expansion of Harrah's Atlantic City Hotel and Casino. However, the architectural firm had a huge challenge in trying to find the right shade of custom color-coated reflective glass for its design. The second highest skyscraper in New Jersey, the 44-story structure was planned to meld attractively with the adjacent \$200-million Bayview Tower, a 24-story hotel with a dramatic cobalt blue glass exterior and colorful LED glass for nightly displays of patterns, advertising and holiday greetings.

"Interpane, a German company, supplied the

cobalt blue glass for the first tower project, but it was no longer shipping to the United States," says Don Patai, project manager for Friedmutter Group. "Working with APG, our glazing contractor, we were able to match that dark blue color. But when we tried to find a sky blue color to contrast with the cobalt blue for the second tower, it was difficult. After months and months of looking at glass samples, everything was too dark."

Working with J.E. Berkowitz L.P. (JEB), an independent architectural glass fabrication company in Pedricktown, N.J., APG was able to satisfy the architect's need for this special custom color-coded reflective glass. But travel to China was necessary to make sure the color was right.

“Working with JEB we explored the European and Asian markets,” says Mark Rosenberg, an officer of APG International. “It just so happened that one of the standard colors the company produces is what we needed, and they had samples to view.”

According to Robert E. Price, director of sales for JEB, obtaining the needed glass from China was not a quick solution. “The custom color-coated reflective glass has very limited sources of supply in this country. To gain a foothold, we had to look elsewhere,” he says. “We researched the world, got to know vendors and developed relationships with them. This was a 10-year process. If you’re buying glass offshore, you must do your homework.”

After revisiting the issue with Patai several times, the project manager gave Rosenberg the green light to work with JEB to begin fabricating, assembling and glazing the 300,000 square feet of custom color-coded glass from the Chinese supplier SYP to be used in the Waterfront Tower.

Painting with Glass

The glass units are comprised of an outboard lite of either ¼-inch blue with blue reflective coating or ¼-inch clear with a blue reflective coating, and an inboard lite of either ¼-inch clear or Solarban 60. JEB also supplied a spandrel application for the blue reflective coatings with a black polyester film adhered to the coated glass.

The glazing challenge, says Rosenberg, is to create the right patterns with a large number of uniquely shaped pieces. “There are a thousand or more of these pattern-shaped units on the project to give the two-toned swirl effect on the façade of the building,” he says. “We assemble and glaze the glass panels in our facility in Glassboro. We have set up two lines running the project. Because the panels have these arcs that create different colors on the building, it’s important to separate the light blue from the dark blue where the arc intersects.” When the patterns are glazed, the swirls of sky blue will complement the cobalt blue.

Combined with the dark blue waves of color on the first tower, the glass will create “a sunset effect,” says Patai. “The new tower also will have LED displays from the fourth floor up. Harrah’s plans to [display] video on it. They want to get rid



Matching the blue glass was a challenge for the expansion of Harrah's casino in Atlantic City.

of all signage. They won't need it. This will be a new generation of light. It will change colors and will be more brilliant. It will be a lot sharper. There will be a continuous show.”

Integrating a Show of Lights

The Waterfront Tower also will incorporate mounted LED units that are integrated into the design for the glass curtainwall. Bands of light, designed by John Levy Productions Inc. in Los Angeles and installed by PRG of North Bergen, N.J., will wrap around the building from the fourth to the 44th floor and perform a wide variety of specialized lighting effects, including intricate color chases, sunburst patterns, rainbow effects, dramatic color wipes, a large scale simulation of the American flag for special occasions and, of course, video, to get the word out about Harrah's.

“There also is a 60-foot-high parapet above the new roof, which also has LEDs, so the lights go from the fourth floor to the top of the parapet,” says Patai. “This parapet was made this high so that we could cover the elevator overruns and make the glass the only thing you see. It makes a much sleeker and contemporary building.”

To integrate the lighting with the architecture, custom window mullion snap covers have been designed to accept the LED fixtures in continuous rows. The LED lights are virtually invisible to guests, allowing them to enjoy the spectacular views without flooding their rooms with light. When completed, Waterfront Tower will add 964 rooms to Harrah's Atlantic City and a breathtaking use of colorful high-performance glass. **AG**