Acoustical Systems Help Quiet a “Bold” New Library

Exterior view of North Regional Library at Broward Community College located in Broward County, Fla. Construction of the library—a $9 million project—was completed in early 1994.

The North Regional Library at Vagi makes the statement; a smart selection of acoustically advanced products provides the quiet.

This building had to reach out to two communities: to the people of Broward County and to the students and faculty of the college. It had to look like a public building, inviting to all,” Vagi said.

The new library replaces one at the college, but offers a new public service to the surrounding community. It opened early this year and was built with public funds at a cost of $9 million. Also included in the project is a child-care center, built to serve as an educational center for child care provider training offered by the college.

“Town and Gown”

It would be difficult to mistake the new library for an office complex. Canopy towers with clerestory windows give the building a monumental feeling in keeping with its role as a civic structure. Aggregate quartz-and-epoxy exterior treatment further enhances the “public building” statement, creating the look of solid stone at a lower cost. The gateways and covered walks that can under the towers provide visual and physical transition from the more human scale of the surrounding areas to the massive scale of the library.

“A linear connection was established between ‘town and gown,’” Vagi said. “From both directions approaching the library, one has to pass through gateways that pierce the massive walls. The scale of these gateways relates the scale of the large building to the person using it. Once inside the building, the plan changes from directional to complex.”

Broward Community College Facilities Project manager Israel Rozental also notes that the project
has been a difficult one to bring to fruition. “There are some exciting elements designed into this building that had not been tried in the past. Accomplishing those portions of the work has been a real challenge,” he said. “The shape of the building, the shapes of elements within the building are all different. There is nothing square about it.”

**Inviting to All**

A circular atrium with a curved stairway is the focus of the interior. To encourage patrons to use the library more fully, the plan is open, though specific functional areas are clearly defined. The lobby provides direct access to a multi-purpose auditorium so that it can be used when the main library is closed.

The children’s library occupies a significant portion of the first floor, which also houses a listening area, offices, audiovisual areas and a popular reading room. Colorful furnishing, a lighthouse and boats add to the playful atmosphere in the children’s area. A young adults’ area is adjacent to, but separated from, the children’s areas.

Except in the children’s area, a subdued palette of pale blues, greens and grays was used throughout. Carpeting, by Interface, is a subtle teal; casework in teal and beige is by Formica and Nevamar. Lighting was provided by a variety of manufacturers, with R. A. Williams stack and reading lighting used extensively.

The second floor is home to the majority of the library’s stacks. Reading areas are located along the northwest wall where they are lit with diffused natural light from the clerestory windows.

**The Challenge of the Triangle**

The most distinctive feature of the building, the clerestory towers, also created the greatest acoustical and construction challenge. The entire building is shaped like a large triangle, with the long edge facing northwest. The square-shaped towers are “set” into this long edge, creating a saw-tooth perimeter. Further complicating acoustical design are three rounded exterior walls in the children’s section of the library on the first floor. Together, these elements created a challenge for project acoustical contractor, Acousti Engineering.

“This was one of the most difficult jobs we’ve ever completed,” said Jim Verner, Acousti project manager. “The biggest challenges in terms of ceiling installation were the sawtooth soffits along the edge of the building and achieving the monolithic look that the architect wanted. We did, however, successfully manage to tie all these spatial elements together through the use of two lightly textured acoustical ceiling panel systems from USG Interiors.

Orion 270 ceiling panels, laid in a white Meridian grid, make up the majority of the ceiling treatment. In the sawtooths and around the perimeters of the entire interior, Acousti installed Silent Collection ceiling panels in a pearl color for a bold, aesthetically pleasing visual accent.

Verner’s crew completed the most complicated cuts for the sawtooth soffits at a warehouse. “Basically, we set up what we call a jig-and-pick system,” he explained. “We made a jig and template of all the odd cuts, prepared the materials, then shipped them to the job site.”

Acoustical soffits in the reading space in the building’s clerestory towers was treated with a spray-texture finish that complements the acoustical values and appearance of the acoustical ceiling panels used throughout other areas of the library.
areas were treated with USG Acoustical Finish from U.S. Gypsum Company. The result is a quiet interior with the unified aesthetics that Vagi had hoped to achieve.

Verner notes that working with the Orion/Meridian combination enabled Acousti to complete their portion of the project more easily. “The ease of working with Orion, as well as its dimensional stability, allowed us to put a lot of it in even before the air conditioning was installed. That helped with the overall project schedule.”

**The Easy Part**

As challenging as the library building has been, constructing the child-care center was “a piece of cake,” according to Verner. Adjacent to the library, the childcare center consists of four hexagonal classrooms arranged around a central area where reception and staff offices are located. “Instead of a linear organization, the classrooms radiate from a central core,” Vagi said. “This design makes it possible to easily observe children’s activities from the offices. The classrooms are hexagonal in shape, providing maximum daylight from three sides.”

The child-care center has been open since early September and is currently operated by Child Care Connection, an area child care provider. Within two years, the center will be converted to serve its original purpose: a laboratory for the education of child-care providers at the junior college level.

Despite difficulties in bringing the project to light, it should prove a dramatic addition to the architectural and cultural life of Broward Community College. Rozental describes the library as sculptural, with a flamboyant, rich interior, reflecting the civic purposes the structure serves, but notes that the design is still functional. “The interior of the building is effectively zoned so that it functions properly for the different publics it serves. The exterior is more of an award-winning type of design. It is quite grandiose.”

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April 1994/Construction Dimensions