

Case Study

California State University Long Beach Campus









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Background

The CSU Long Beach campus features the Walter Pyramid, an indoor multipurpose arena for California State University. Built in 1994, the \$22 million venue has hosted several NCAA events, including the 2001 and 2003 NCAA men's volleyball championships, the women's volleyball NCAA matches, and the 2003 NCAA women's volleyball regionals. The Walter Pyramid, formerly known as The Long Beach Pyramid, is one of four architecturally true pyramids in the United States.

As the largest space-frame structure in North America, the impressive pyramid measures 345 feet on each side of the square base, making room for three full basketball courts and four additional half basketball courts. It also features a one-of-a-kind cantilevered seating system mounted on movable platforms and seats 4,000 guests.



The Problem

While beautiful, the interior geometry of the pyramid presented an acoustic challenge for the venue's events. The previous PA system was outdated and dysfunctional, with truss-hung loudspeakers which had stopped operating years before. The non-working speakers were supplanted by portable speakers on stands aimed at the seats, but the results were not optimal.





"It was the original sound system, installed in the early 1990s, and it was pretty old technology that was failing to pieces," said Mark Edrington, General Manager of the Walter Pyramid and an Associate Athletics Director at CSU Long Beach.

When the Walter Pyramid's lower bowl was hinged and raised in drawbridge-like sections to create an open flat floor, the seating's metal undersides served as large acoustical reflectors. Additionally, the venue's tall ceilings led to complicated acoustics. The old sound system could not properly project sound at appropriate levels to all seating areas.

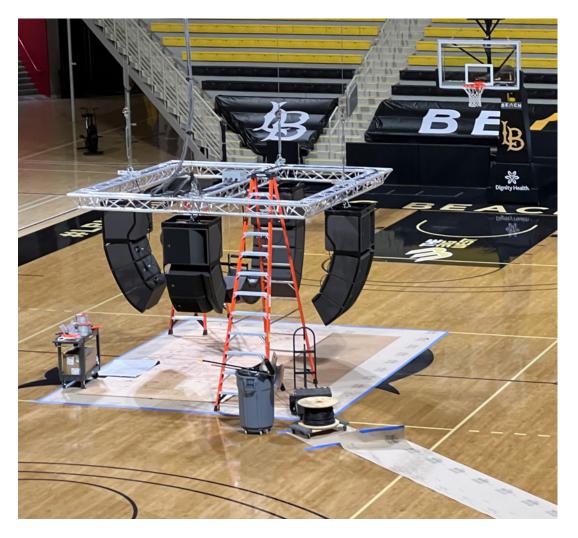
Due to the venue's geometry, movable seating system, and variety of activities, Edrington knew that sourcing the new sound system would be a challenge.



Due to the pyramidal design, they would set the volume for one level of seating, but the guests in the lower seats would find it hard to hear, while the guests in the upper seats had way too much volume. The result was a subpar sound that did not provide adequate audio for events—from sports to banquets.

"In terms of audio, they were limping along in there," said Susan Holguin, founding CEO of Vizual Symphony, Inc, the integrator that installed the new system.

Edrington and his team were ready to address the audio challenges to accommodate all the audio needs for events and enhance the overall experience in the Walter Pyramid.



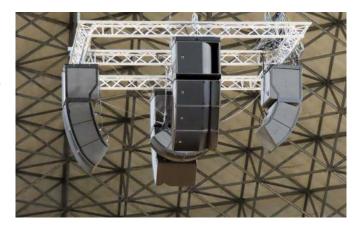
The Solution

Walter Pyramid partnered with consultancy Idibri, a Salas O'Brien company, and Vizual Symphony to design and install a new system. Idibri spent two years developing the system design, which included, after safety inspections, a replacement of the entire truss system. Considering the Pyramid has no parallel surfaces, the project was a monumental undertaking.

As part of Vizual Symphony's installation process, the entire cable path had to be rewired, with new, super-heavy 8-gauge audio cables needing to run as long as 190 feet to the highest point. In retrospect, said Holguin, who worked on the project with CSULB Project Manager Marc Joves and Production Access Group CEO Ben Frederick, it made the installation of the L-Acoustics Ai system itself seem like a breeze.

Walter Pyramid's new loudspeaker system design is typical for an arena installation:

- A four-sided cluster with A15i Focus speakers as the main enclosures two per hang except for one hang, which has only one A15i in order to shorten it above an area with no bleachers.
- All four hangs are buttressed with one A15i Wide on the bottom and one KS21i sub on the top.



- A horizontally hung array of two A15i Focus speakers and one A 15i Wide speaker provides court-floor coverage.
- Two LA12X amplified controllers power and processes the entire system.

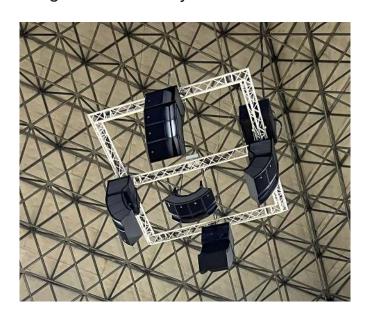
The Outcome

Although the sound in the Walter Pyramid is challenging, the design and installation of L-Acoustics have conquered these issues by creating a consistent sound throughout the venue.

"We used the flexibility of the Ai Series' vertical and horizontal patterns to maximize coverage of the seats and minimize sound hitting the walls in both the 'seats up' and 'seats down' configurations," Ryan Knox from Idibri said. "Soundvision proved out the coverage quickly, and EASE was used to verify that the design was optimized for the unique acoustical environment and would achieve the intelligibility goals, which it did."

With the installation complete in early 2022, just as the basketball season was wrapping up, the new system debuted during the 2022 volleyball season.

"The loudspeaker system went without a hitch, and when we turned it on, it was exciting," Holguin said. "They've also installed a nice, big video wall, and seeing and hearing all of these new systems makes it feel like a brand-new arena. I think the highest compliment it's gotten so far is on social media, where people were posting that they could hear the announcers clearly over the noise of the screaming fans. Now that's a powerful PA."



Edrington said although it's still early for the Ai Series system, it's performing well and meeting the very high expectations of the Walter Pyramid staff and guests.

Vizual Symphony was also contracted with to modernize the Walter Pyramid Locker Rooms back in 2012, among other projects around CSU Long Beach campus.

About Vizual Symphony Ideas in Focus Vizual Symphony Ideas in Focus Vizual Symphony Ideas in Focus

Founded in 2001, Vizual Symphony is a certified small business, womenowned and operated. We provide Audio and Visual products and installation for environments such as Classrooms, Meeting Rooms, Web Conferencing Rooms, Auditoriums, and the like. You bring the idea and we bring to life the technology you need to make that space function with simplicity and ease.

Our goal is to simplify your technology needs. Whether your objective is to outfit a room for use by one person or dozens of people, we can provide the solutions for your communication, training, and teaching facilities. Don't have the expertise? Don't worry, we do, and we can design intuitive suites to fit your budget, your vision, and your function.

Vizual Symphony CEO Susan Holguin has roots in the world of education and experienced first-hand the importance having the right audiovisual technology in place for schools. She saw the results for teachers and students and realized this was a service she wanted to provide for organizations and businesses in a variety of industries.

From this passion, came Vizual Symphony where Susan lives out her creative entrepreneurial side and her desire to make meaningful contributions to education—through schools, organizations, and corporations. Over the years, Vizual Symphony's service offerings have evolved and changed, but one thing has stayed the same: Susan's focus on building long-term relationships with clients and helping them to be better at what they do.

Ivan Holguin joined the team in 2006, and together they keep the Vizual Symphony vision strong. Susan and Ivan have a loyal team of experts working with them that is dedicated to the Vizual Symphony mission: bringing Ideas in Focus. The team is licensed, bonded, and insured and brings with it decades of experience in audiovisual technology consultancy, design, installation, and maintenance.

Although we remain at the top of the AV technology industry, our team members continue to attend trainings to stay on the cusp of what's cutting edge and upcoming. When our experts arrive on the scene for an organization or business client site visit, they can immediately get a feel for what's going wrong and which AV solutions are necessary to make it right. It's a unique combination of gift and skill that enables our Vizual Symphony team to make such a dramatic, positive impact for clients.