

mendo **stadia**

AZTECA STADIUM

Meyer Sound provide an audio revamp at the historic Mexico City ground.

OPTUS STADIUM

State-of-the-art lighting and visual technology installed at the Perth stadium.

JOE WALSH

VITEC's Sales Director discusses how the company is improving the fan experience.





EVERBANK FIELD

Jacksonville, USA

Since opening almost 23 years ago, the NFL Jaguars' home stadium, EverBank Field, has undergone numerous changes and upgrades. The Jacksonville Jaguars took to the pitch for the first time on 18 August 1995, only 20 months after the old Gator Bowl was demolished - which is an exceptionally quick build period for a stadium of this size.

A decade down the line and the stadium was the host site of Super Bowl XXXIX, for which it underwent a US\$63 million renovation. Among the additions were the Terrace Suite, a 25,000 sq ft sports bar called the Bud Light Party Zone and a 20,000 sq ft Sky Patio.

Taking its name from a partnership - that included a naming rights agreement - between

Above: The LED displays are some of the largest in-stadium video boards in the world.



EverBank Financial Corp and the Jaguars in 2010, the stadium has an impressive PA system and boasts one of the world's largest in-stadium video boards too. Design firm, WJHW, provided design and consulting services for this project, while EverBank Field's management company, Spectacor Management Group (SMG), hired Christopher 'Topper' Sowden, Principal Consultant of Sowden and Associates to design and oversee the installation of the new audio system, which was installed by locally owned Florida Sound. In order to meet the brief of delivering high output and even coverage throughout the stadium, Christopher and his team designed a distributed line array system using JBL VLA loudspeakers that are mounted to lighting structures behind the stands. "The facility contains eight lighting

structures placed around the stadium," Christopher explained. "Working with Florida Sound Engineering and [JBL Professional Senior Application Engineer] Brad Ricks, we decided the JBL VLA Series loudspeakers would be the best choice for this installation for their frequency response and ability to deliver high-impact sound over large throw distances." The loudspeakers on the sides of the stadium include three VLA Series VLA601-WRX loudspeakers and one VLA901-WRX loudspeaker, along with two PD Series PD5212/64-WRX loudspeakers and one PD5212/95-WRX loudspeaker per cluster. While the end zone clusters each feature three VLA Series VLA601-WRX loudspeakers, one VLA901-WRX loudspeaker, with one PD5212/64-WRX and one PD5212/95-WRX loudspeaker.

"The arrays were developed using a road show rigging concept that allowed their installation using either a 150ft crane or two chain motors," Chris noted. "Each cluster only took about an hour to mount. Because the lighting structures are forward from the upper deck rear seating rows, we covered that area with 32 JBL AM7212/26-WRX high-power two-way loudspeakers on poles behind the last row of seats, which we chose because of their extremely wide horizontal angle of coverage," Christopher pointed out. "We also installed 52 JBL AW295 speakers below the edge of the upper deck to cover areas of the lower deck that were shadowed from the main system." "The combination of loudspeakers and deployment gave us the ideal combination of sonic attributes to achieve exactly the sound coverage" ➤



and musical quality we needed," Christopher said.

For HD LED video displays, the Jacksonville Jaguars partnered with Daktronics. Each display is long enough to reach a little further than the distance from the goal post in one end zone to the goal post in the other end zone, and each display boasts more than 21,700 sq ft of active display area - almost enough to cover the entire field of play when combined.

"As the construction took shape, we all envisioned what an impact it would have on EverBank Field and the game-day experience," said Jaguars owner, Shahid Khan. "And that was one of the reasons from the beginning for embarking on this ambitious project. We wanted EverBank Field to be a world-class destination, and we wanted to bring energy and attention to Downtown Jacksonville. Our goal is to offer best-in-

class amenities and the best in-stadium experience for our fans and for everyone who visits Jacksonville and EverBank Field." "We owe our fans and this community nothing less than the best, and the enhancements are the best," added Jaguars President, Mark Lamping. "The stadium upgrades drastically changed the in-stadium experience and create a truly unique environment that you can't get at home. It is an eye-opener and an attention-getter for Jacksonville."


The two end zone displays each measure 60ft high by 362ft wide and feature a 13HD pixel layout. The north end zone display measures nearly 10ft high by 320ft wide and features the same 13HD pixel layout. On the opposite end of the field, there are two ribbon displays on both levels of fascia in the seating bowl below the south end zone main display. Each ribbon display

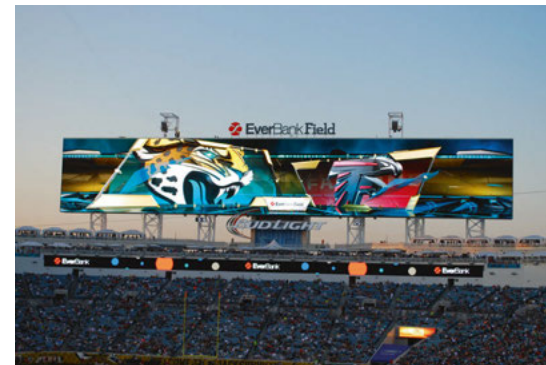
TECHNICAL INFORMATION

DESIGNER: WJHW, Sowden and Associates
INSTALLER: Florida Sound, Alpha Video
BRANDS: JBL, Daktronics, D.A.S. Audio, NanoLumens
WEBSITE: www.wjhw.com / www.sowdenassoc.com / www.floridasound.com / www.alphaideosports.com / www.jblpro.com / www.daktronics.com / www.dasaudio.com / www.nanolumens.com

features a 15HD pixel layout. The top display, measuring more than 3ft high by 365ft wide, is curved to appear the same length as the bottom display, which measures more than 3ft high by 295ft wide. Four new displays replaced the existing displays in each corner of the stadium and two further displays were installed above each tunnel at opposite corners of the stadium. That's a mammoth amount of LED display! The Jaguars also installed seven Christie Spyder X20-1608 image processors and, to link the workflow together, tasked Ross Video to stitch

the 8K video together upstream of the processors. Ross Video did so using the Multi-Screen feature set of the Carbonite production switcher to create a 7680 x 1080 output. Two Vision Tritium panels and an 8M/E Octane chassis control the Carbonite frames, Spyders, and Mira 8K playback systems. Four M/Es support the south left corner, south right corner, north left corner, and north right corner of both boards, with a final M/E providing the program feed to the centre of each board. Working with systems integrator, Alpha Video,

the Jaguars overhauled the SD control room to build a state-of-the-art room that could handle 8K. Located on the sixth floor in the northwest corner of EverBank Field, the video-control room features an Evertz router, multiviewer, main frames, frame syncs, and software. For replay, the Jaguars opted for three eight-channel Abekas Mira instant-replay servers, giving the team a total of 18 channels of record and six channels of playout, as well as an eight-channel Mira production server. Alongside the main stadium itself, is Daily's Place, 





a 5,500 seat amphitheatre and covered flex field to the downtown sports complex. Florida Sound was invited back to install the PA system here too. This time, though, Valencia-based D.A.S. Audio was selected. As a multipurpose venue, the ability to ensure quality sound throughout the space was a crucial consideration for facility management. Senior Project Manager at Florida Sound, Neil Cooper, takes up the story: "The sound reinforcement setup at Daily's Place is a large distributed system.

"We used a combination of 24 D.A.S. Audio Artec 315.96 two-way, passive enclosures along with HQ-218CX high power sub-bass enclosures. The Artec loudspeakers are spaced evenly throughout the area and are mounted to the facility's structural supports at a height of about 80ft. Similarly, the HQ Series subwoofers are evenly spread out around the area and mounted up high as well. For the actual loudspeaker positioning, we had custom mounting brackets made to affix the loudspeakers to the main roof support beams of the flex field facility."

The Artec loudspeakers and the HQ Series

subwoofers are particular well-suited to stadium projects, however, Neil shared the fact that they were actually chosen directly by the Daily's Place. "Once we had them installed and tuned, I was very impressed. Both speech intelligibility and music reproduction characteristics are very good and natural sounding. Frequency response from the system is very even and, from a construction standpoint, the D.A.S. Audio equipment is very solid and well made. Overall, I've been very pleased with the outcome of this system," he added.

Next to the amphitheatre is the Lycamobile South End Market, which has also been renovated recently. As part of this section upgrade, a three-sided NanoLumens ENGAGE Series display has been installed. The three-sided display comprises of three separate NanoLumens ENGAGE Series displays, each measuring 11ft by 6.3ft and utilising a 2.5mm pixel pitch that provides bright, crystal clear viewing from any distance and any angle. The setup hangs from the ceiling in the south end zone concession area, providing pre-game coverage and live footage from the field in

every direction. This is part of the location's ongoing improvements to guest services, according to Nik Sobic, Director of Strategic Initiatives for the Jacksonville Jaguars.

"The renovated Lycamobile South End Market includes brand new concession areas, multiple bars, a full service Daily's convenience store, a Jaguars Pro Shop and now the brand new three-sided LED NanoLumens display," Nik said. "It helps to ensure that we deliver the best possible fan and guest experience for fans on game day and concert goers attending a show at the all-new Daily's Place amphitheatre."

Because it is essentially an outdoor display in an area of the country that is subject to hurricanes, it was determined that it needed to be built and installed to withstand 140mph winds and receive a protective coating to shield it from the elements. "The new display met all our needs for performance and rugged reliability in an open area environment," Nik said. "We are thrilled to have NanoLumens on our team." ●