



Budweiser Events Center and AHL Colorado Eagles Flying High with L-Acoustics



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Posted on March 30, 2021



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Brown Note Productions installs A10 loudspeaker system at Larimer County-owned venue

LOVELAND, Colorado - March 2021 - Home to the Colorado Eagles of the American Hockey League, the Budweiser Events Center (BEC) at The Ranch Events Complex in Loveland, Colorado is a 7,200-capacity multipurpose arena that hosts everything from hockey, basketball and indoor football to concerts, rodeo, family shows and more. Less than an hour drive from both Denver and Cheyenne, Wyoming, BEC has become the focal point for sports and entertainment in Northern Colorado, offering approximately 200 events each year, including the 2021 NCAA Division I Men's Ice Hockey Loveland Regional Tournament held there in late March.

Larimer County, which owns the Spectra-managed venue, recently took advantage of the COVID-mandated



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downtime to make several notable renovations to the arena. The most significant of these was integrating a new L-Acoustics A Series loudspeaker system, which was designed and installed by Denver-based Brown Note Productions (BNP).

Although the facility is only 16 years old, the arena's original loudspeaker system—a distributed point-source design—was no longer meeting BEC's clients' and patrons' needs. "The main issues with our former system were coverage deficiencies, poor intelligibility and the lack of availability of replacement parts," says Spectra Director of Operations Tom Manning. "With increasing numbers of dead spots throughout the bowl seating areas, trying to equalize volumes was very difficult. In fact, in all of the customer satisfaction surveys that we did following sports or concert events, sound was the number one complaint, so it was time for us to find a better solution."



"BEC knew that they wanted to enhance the fan experience throughout the arena and provide high-impact audio for all of their events," recalls BNP Director of Integration Zach Richards. "They identified some basic performance requirements and a target budget but did not request any specific products. When we at Brown Note decided to submit a design proposal for this project, we knew that we would have to deliver exceptional performance and output with a minimal number of loudspeakers and amplifiers to stay within the required budget. It was this



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directive that steered us toward the L-Acoustics A Series, knowing that we could cover sizable areas of seating with relatively small array clusters while still delivering clear and consistent audio. Working closely with the L-Acoustics sports venue team, we used Soundvision 3D modeling software to develop a system featuring A10 Wide enclosures with SB18i subs. Moreover, with LA12X and LA4X amplified controllers, the entire system could be powered on just five amplifiers.”

This project represented a unique bid opportunity where Larimer County was looking for a company to design and install the new loudspeaker system as a complete turnkey project. In collaboration with the L-Acoustics team, BNP prepared a detailed design proposal that, in addition to the complete loudspeaker system, included system control via Q-SYS, a Dante infrastructure, structural engineering, and amplification for auxiliary zones. After an in-depth interview process, BNP was awarded the project based on the L-Acoustics A Series design.

BEC’s new loudspeaker setup comprises a total of 37 A10 Wide constant curvature enclosures, which are split into nine three-enclosure arrays and two dual-enclosure arrays flown around the center scoreboard to address the bowl seats, plus two three-enclosure arrays mounted beneath the scoreboard to cover the ice rink. Two hangs of four L-Acoustics SB18i subs deliver the system’s ample low end, while two coaxial X12 short-thrown enclosures supply fill coverage to the farthest corners of the arena.

The entire system is powered and processed by one L-Acoustics LA4X and four LA12X amplified controllers, racked in a remote closet in the southeast corner of the arena, behind the broadcast booth. These are being fed via analog from a QSC Q-SYS Core 110F configured with the L-Acoustics plugin to provide operators with direct control and monitoring of the amplifiers.

BNP was faced with an aggressive installation timeline, with an original target completion date of less than three weeks after taking delivery of all the equipment. “We completely demolished the old system—loudspeakers, cabling, DSP and amplification—in about four days,” says BNP Integration Project



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Manager Matt Bauer. "From there, we were able to pull all new cable, hang loudspeakers, rack amplifiers and DSP and be making noise in about two and a half weeks before the ice was installed in preparation for the team's first practices and season opener on February 5th. It was crucial that we passed signal and listened to the PA's coverage before the ice went in as some of the PA would be unreachable for about two weeks after the ice was installed. We were thrilled when we fired it up for the first time. The PA did exactly what Soundvision said it would do and we didn't have to make a single adjustment."



As a municipally-owned facility, BEC naturally had to be mindful of budgetary constraints coming into the project, which is another point on which the A10 system excelled. "While we initially considered other systems in the design process, we knew the box count and required amplification would quickly exceed the budget based on the size of the arena," Richards notes. "Plus, we saw pretty quickly in Soundvision that A Series—A10 Wide in clusters of three, in particular—was perfectly sufficient to cover the seating segments of the arena with plenty of output. L-Acoustics' proven performance in large sports facilities throughout the world is quickly establishing them as 'the standard.' Now, A10, which delivers concert-quality sound at a very competitive price, is really allowing the brand to excel in the small- to mid-sized sporting venue market, too. The A Series puts L-Acoustics at a whole new level of competition."

"The team here at Brown Note as well as the team at BEC could not be more thrilled with the results," Bauer enthuses. "The coverage throughout the arena is seamless, and the system has tons of power. Also, this is the first time that BEC has had subwoofers as part of its house system, and I know that the extended bandwidth is going to allow them to add some great impact and energy to their games."



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Manning agrees: "The new L-Acoustics system fit our budget and delivers increased intelligibility and coverage. I have walked the seating areas during our first few games and have found absolutely no dead spots and failed even to distinguish when I was halfway between two clusters. It's such a refreshing change from our previous system."

Although BEC's system went out for an open public bid, Manning notes that he was delighted to see Brown Note and L-Acoustics be awarded the project. "Tony's Pizza Events Center, Spectra's venue in Salina, Kansas, has an L-Acoustics system, and their experience with it has been very positive. Plus, the L-Acoustics brand is typically what we bring in via outside production companies for our larger touring shows, as it's common to see their speakers be the preference of many touring artists. We've been pleased with their quality every time we've had their gear in the building, and now it's fantastic to have our own system in place."

"Brown Note was also an absolute pleasure to work with—they were professional, independent, and accommodating to a constantly changing installation schedule due to team practices—and we can't wait for Eagles fans and our other patrons to hear our new system. I know it's going to bring a lot of excitement to the events we host here at BEC."

For info on the Budweiser Events Center at The Ranch, visit www.treventscomplex.com. Brown Note Productions can also be found online at www.brownnote.com.

About L-Acoustics

Founded in 1984 near Paris, France, L-Acoustics is the market leader in professional sound reinforcement technologies. With over 550 team members worldwide and offices in Paris, London, Singapore, Los Angeles, and New York, L-Acoustics is present in over 80 countries via our network of Certified Providers. Focused on solutions that elevate the audience experience, more than 20% of L-Acoustics' talent is devoted to R&D in the areas of acoustics, applications, mechanics, electronics, signal processing, and software development. In recognition of creating innovative professional sound technology, L-Acoustics was named



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as one of *Fast Company's* Most Innovative Companies of 2020.

Recognized for pioneering the line source array, L-Acoustics continues to shape the future of the professional audio industry with L-ISA Immersive Hyperreal Sound technology, a multidimensional, object-based approach to designing, mixing, and processing sound that results in extremely natural and intelligible audio, and a more vibrant, authentic connection between artists and their fans. Now also available for exceptional private sound spaces with L-Acoustics Creations designs.

L-Acoustics technologies can be heard in places like the Hollywood Bowl, Dickies Arena, Allianz Arena, home of Bayern Munich, or the Philharmonie de Paris, as well as the world's top-grossing festivals, and on tour with world-class artists such as Mark Knopfler, Aerosmith, and P!NK.