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**ROCKET MORTGAGE FIELDHOUSE**

LG and JBL Pro provide the technology for the new audiovisual system at Cleveland Cavaliers' home.

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**STADE SAINT-SYMPHORIEN**

A new, state-of-the-art audio system is now in place at FC Metz's stadium, which is undergoing a huge upgrade.

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**TWICKENHAM STOOP STADIUM**

Harlequins become the first professional sports club in the UK to install UV-C lighting technology.

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# ROCKET MORTGAGE FIELDHOUSE

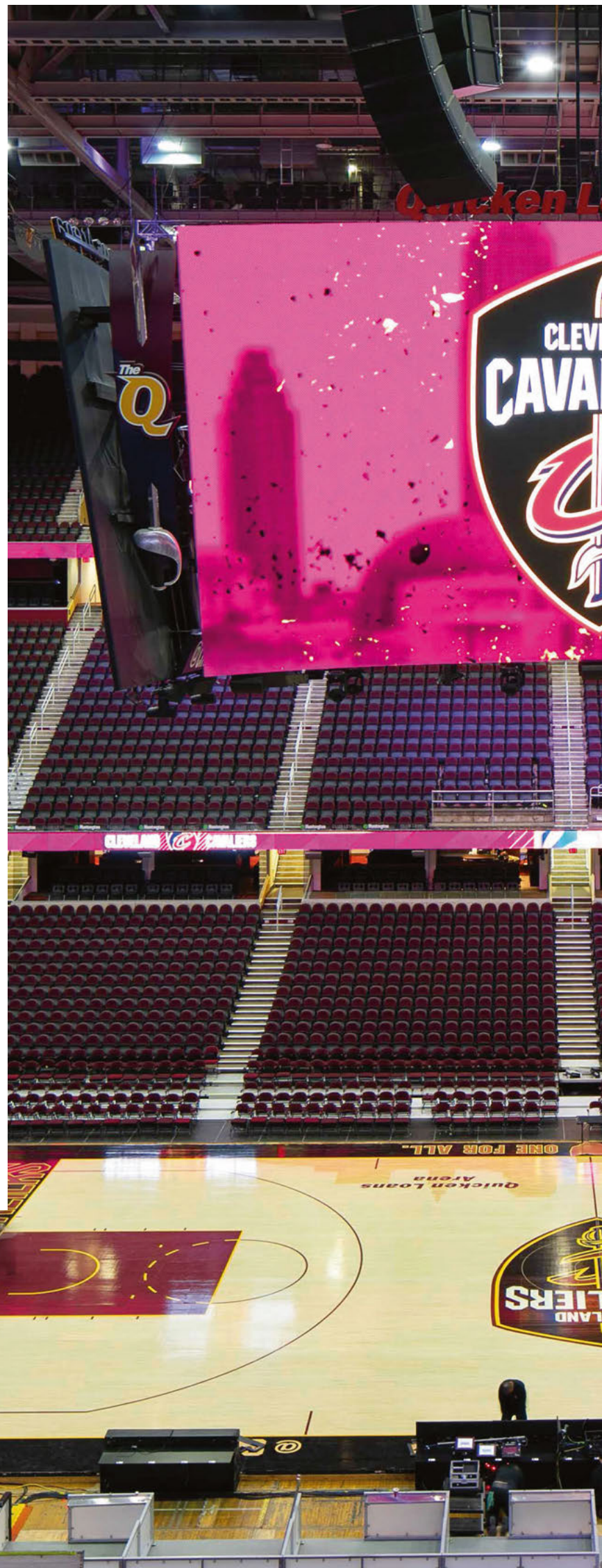
Cleveland, USA

Images: LG, Crescent Digital

**R**ocket Mortgage FieldHouse, a multi-purpose, public sports and entertainment venue in Cleveland, Ohio that serves as home court for the NBA's Cleveland Cavaliers, recently transformed its 25-year-old infrastructure into a cutting-edge facility. The transformation included over 750 digital displays from LG Business Solutions USA, and a state-of-the-art JBL sound system that ensures every attendee can see and hear the action at all times from every seat in the house and throughout the venue's expanded gathering areas and concourses.

Heading up this project was Cleveland-based AV integration firm, Crescent Digital. Having already established a great relationship with the Cleveland Cavaliers, working with the team for almost 20 years, the company was familiar with every corner of the stadium, making it a great asset to the regeneration project. This particular project proves that cities and organisations can potentially save hundreds of millions of dollars by renovating existing sports and entertainment venues instead of building brand new ones. Digital displays and integrated audio technology can play a significant role in these projects, as they have as part of the transformation of Rocket Mortgage FieldHouse.

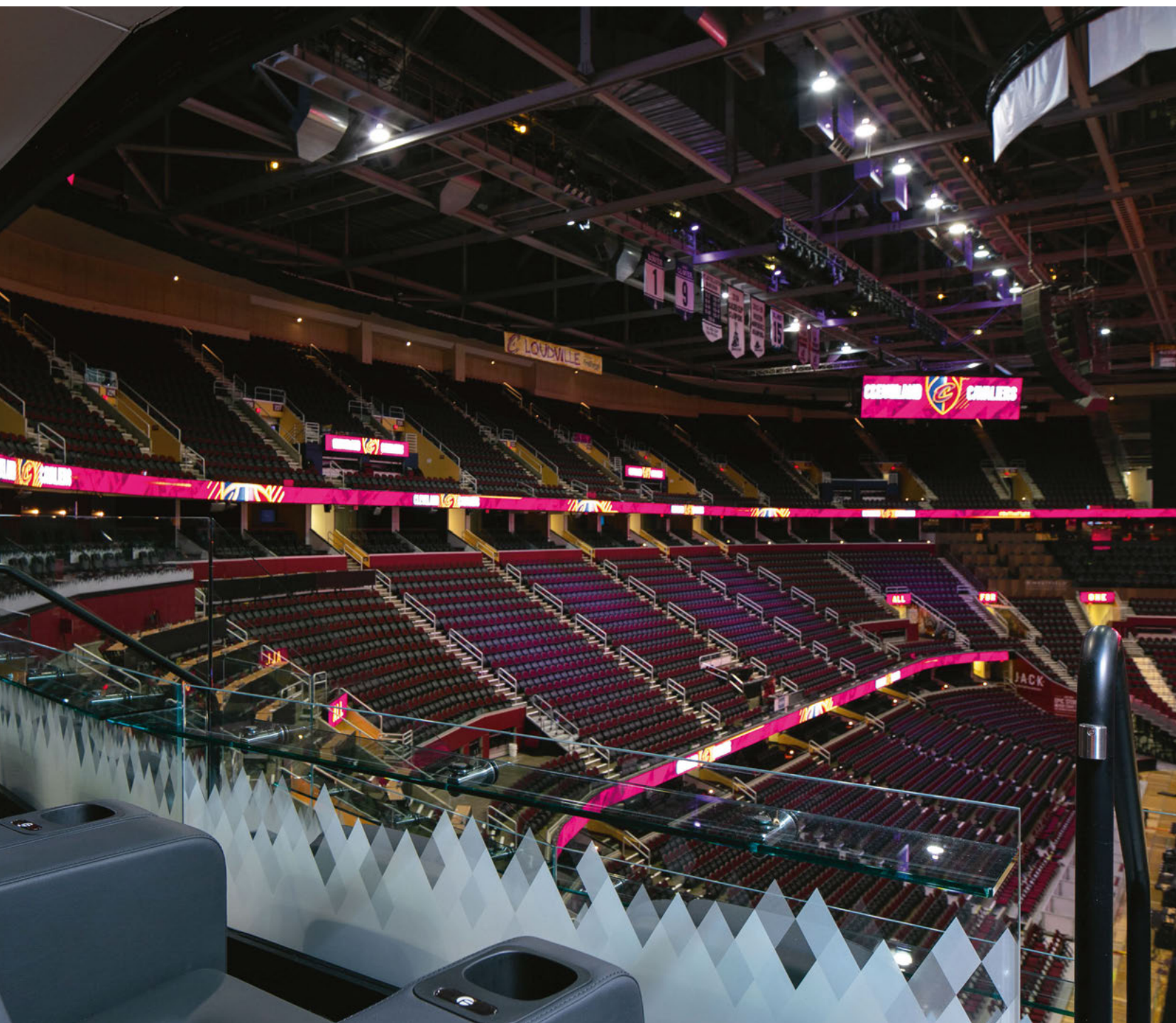
"Through the efforts and investments of the team, working in collaboration with the city of Cleveland and Cuyahoga County, and the hard work of our design and installation professionals, Rocket Mortgage FieldHouse is now a state-of-the-art, high tech arena that delivers an unforgettable fan experience," said Crescent Digital CEO Mike Heines. Crescent Digital worked closely with Rocket Mortgage Fieldhouse's CTO, Mike Conley, who was the real 'inventor' of the stadium's solution and design. The primary focus was on regeneration and turning the old arena into a new arena that would set the bar for stadiums of the future. Rocket Mortgage Fieldhouse benefits from an incredible location in downtown Cleveland, and the project was a cooperative venture between the ownership of the Cleveland Cavaliers and the gateway economic development district, which supports projects such as this in the city. "From the beginning, we and the team at the stadium felt that the best idea would be to take the existing arena with its great location and











structure and just remodel it, modernise it and turn it into a special landmark in the city,” explained Mike. “From a technology perspective, that really starts with the initiation of the architecture and the system design. It’s not necessarily a quick and easy process and we worked for a good two years pre to the project being finished to design a great sound and video system that would really put the stadium on the map.” When designing the sound system, the team at Crescent Digital had to focus on a number of different zones around the stadium that required varying SPLs. The stadium consists of suites, VIP boxes, drinking / dining areas, as well as the concourse and main seating areas, all of which had to be taken into consideration. “The audio present in the suites had to be different to the concourse, and we were wary of background music spilling out into the game day areas. There was so much to think about as you also had club level spaces, which had to have club level sound. That was extremely necessary for the premium suite holders. Security

was important, too, as the system had to be able to alert all attendees to any emergencies within the building quickly and easily,” furthered Mike.

“We also had to look at the Cavaliers general offices, which are located inside the stadium, and configure the audio in their conferences rooms, office and executive spaces. So, it was a totally unique design overall on all of the various audio products and audio solutions that went into the arena, not just for the games and the events that will be held inside the arena, but for everything else that came with it.”

For the sound system, the team specified JBL loudspeakers, a popular and cost-effective brand within stadia. The products were perfect for Rocket Mortgage Fieldhouse as they provided a wide range of solutions for audio conferencing, and fulfilled the difficult needs of the system design within the court. Crescent Digital installed 700 JBL in ceiling and pendant loudspeakers throughout the entire stadium to ensure it had a really high level of consistent sound quality.





“We also selected leading edge audio and audio processing products by BSS, Crown, JBL and Shure because a project of this magnitude calls for the best equipment on the market,” furthered Mike.

No matter where a visitor is inside the FieldHouse, the LG digital displays provide wayfinding information; live feeds of the game, concert or convention; event-specific messaging, marketing and sponsor messages; and easy-to-read menus for restaurants and food and beverage stands.

“We conducted the design process with a number of goals in mind,” explained Dan Smith Vice President, Business Development at LG Business Solutions USA. “The first goal was to entertain and engage customers from the moment they arrived on property. That said, Crescent deployed a number of LG screens throughout the arena entrance. Each screen displays real-time player and team statistics, league information and more.

“Once inside, you’ll see many LG displays littered throughout

the main course. The goal there was to make sure fans never missed a moment of the action, whether it’s previous game highlights before tip-off, live game footage or post game clips as you leave. Wayfinding was also an important aspect of the installation. Our goal was to make it feasible that regardless of where a patron is located in the fieldhouse, they’ll always know the nearest restroom, concession or exit. “The concession stands themselves were a focus, too. The thought was if we improved the communication of available food items, that would entice customers to spend more money in the concession areas. Finally, we upgraded the displays in each arena suite. We wanted premium guests to be able to view game replays in more detail and in a larger format.”

The venue’s main concourse has a ring of 150 49-inch displays that wrap the entire perimeter and can be used individually or together to present any type of content the occasion calls for. In fact, every display in the FieldHouse,





both indoors and outdoors, is connected to a single IPTV distribution system that enables quick changes and automated scheduling of the enormous display network. This level of control enabled the venue to create a new experience for the national anthem, where the entire display network goes dark in a 'blackout mode', then comes on instantly when the song finishes.

As happens in any renovation project, Crescent Digital encountered some space constraints and infrastructure limitations that required creative thinking and custom designs to overcome. At one concession stand, plans called for digital displays to be mounted above the entire stand, covering its full length so every visitor can see the menu options from any location. Due to limited wall space from the stand to the ceiling, the team realised that the only workable solution was to install LG's unique 86-inch Ultra-Stretch displays side-by-side, effectively forming an ultra-wide video wall above the stand. After that, the decision was made

to use those same displays at all concession stands.

"Having the right partners on a project of this scale and complexity is critical," said Mike Conley. "Our partners at Crescent Digital combined with the LG team made a big difference and helped create a vision and a solution that takes our technology and fan experience to the highest level possible. Everyone kept that in mind as solutions were created, while developing efficiencies at the same time. A true win-win-win equation."

With a height of just 14-inches, the specialised ultra-stretch displays were also the perfect product for the Cavaliers locker room, where five of the displays sit side-by-side to create a ticker-like canvas that presents gameday-related media. The same displays also grace the ticket office, where they provide information to guests in line.

"Throughout the entirety of Rocket Mortgage FieldHouse, Crescent Digital was able to achieve every goal and meet every expectation with a diverse array of LG digital displays,"



said Evan Peterson, Senior Account Manager for LG Business Solutions USA. “The FieldHouse is a testament to what can be achieved through hard work and forward-thinking project leadership, and it paves the way for other venues around the globe to create efficiencies by renovating and updating facilities and technologies.”

The FieldHouse also upgraded displays in its premium guest spaces, such as areas for season ticket holders, with six LG video walls in 4x2, 2x2 and 3x3 configurations. Each video wall is comprised of multiple 49-inch or 55-inch high brightness displays with ultra-slim bezels (.88mm bezel-to-bezel). Additionally, each suite has three LG displays connected to the IPTV network, which guests can control to view cable programming.

Dan continued: “LG provides the right solutions for the project, whether it’s a renovation or an entirely new arena. You don’t always have to knock down an existing space to significantly improve the fan experience. Integrating

digital signage, as we’ve done for the Cavaliers, can create something just as new and exciting – at a fraction of the cost of rebuilding. To put this in perspective, this project cost a couple of million dollars to complete versus the estimated 100 million needed to initially construct the fieldhouse.

“Sports are inherently a visual experience and the Cavaliers are now able to deliver an engaging visual environment with heightened emotional and intellectual fan engagement, without moving locations or tearing down their original building. The number of screens installed in arenas and stadiums has exploded in recent years. It used to be a few hundred now many installations boast a few thousand. The goal of this increase is to continue connecting fans to the action, wherever they are. Aiding in that goal are several significantly larger, more immersive display formats.

“It’s also important to note the rise of LED in sports settings. There was a time when a stadium’s only LED signage was the scoreboard. Today, modern sports arenas and stadiums are





immersed in a variety of LED signage use cases.”

As most stadiums still navigate their way through the challenges thrown at them by the COVID-19 pandemic, the use of video boards, such as the ones installed in Rocket Mortgage FieldHouse, will become imperative in making sure operations are running safely and smoothly, as venues start to reopen their doors. “As we see venues starting to remodel and repurpose their arenas, after having time during this pandemic to reflect on how they run their businesses, I think we will definitely see people using video boards in very unique ways. There’s the ability for both fan and player engagement, as well as being an extremely useful tool for health and safety – something all of us are going to have to take into consideration over the next few years,” said Mike. “Rocket Mortgage FieldHouse has integrated so much visual technology throughout the arena, no fan or visitor will ever have to miss a big layup or their favourite song because they had to visit the restroom or wanted to buy a beverage,” said Evan. “Now, when large event venues approach the end of their displays’ life cycles or consider infrastructure upgrades,

we hope operators will look to this project as a beacon of what can be achieved by including cutting-edge technology and displays as part of the larger renovation plan.”

“The stadium is a real credit to the management team and the brilliant staff. It is one of the most well managed event arenas I have ever worked on. You don’t particularly see Cleveland as a typical destination point for concert venues or public corporate events, but Rocket Mortgage FieldHouse has confirmed that it truly is. It’s a central jewel of the city and also one that is extremely well thought of throughout the United States and the world. It’s now well equipped with next level audio and video technology, too, that is bound to take the game-day experience to the highest level,” concluded Mike.