PERFECTHARMONY

ristol, Va., and Bristol, Tenn., are separated by a state line that runs through their common downtown district. As such, the towns share many attributes in all dings a slaim to forms. In

WRITTEN BY | CHRISTINA KOCH

butes, including a claim to fame: In 1998, the U.S. Congress designated Bristol, Tenn., the "Birthplace of Country Music". In August 2014, the Birthplace of Country Music Museum opened in a former industrial building in Bristol, Va.

Through text, artifacts and interactive displays, the museum captures the 1927 Bristol Sessions, which were held by Ralph Peer, a talent scout and record producer with Victor Records. Many believe the Bristol Sessions gave birth to country music as we know it today. In fact, Johnny Cash described the sessions as "the single most important event in the history of country music."

Creating interactive audiovisual exhibits in a 23,600-square-foot building that was constructed as an automotive dealership in 1925 was no easy feat. But the dedicated architects—Peyton Boyd, FAIA, president of Peyton Boyd Architect PC, Abingdon, Va., and Joseph A. Nicholson, AIA, NCARB, IDSA, principal in charge of studioMUSarx LLC, Philadelphia—and the passionate client—the Birthplace of Country Music Alliance—created a museum experience that makes music lovers who pass

through it emotional. (See the video at www.studiomusarx. com/home/#birthplace.)

"One thing I've learned over my career is that good clients make good projects," Nicholson notes. "The reason the Birthplace of Country Music

Alliance was a good client was they really believe in their story and their project. After they hired



The Architects of the Birthplace of Country Music

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us, they let us be the best we could be and at times they pushed us to be better. This project confirmed that when clients realize they have to also speak for the public and artifacts and collection, then you really must have the closest to ideal space I've ever come to."

Exterior

Although the Birthplace of Country Music Museum is not located on the site of Peer's temporary 1927 studio, it is close in character to the industrial-type building in which the Bristol Sessions were recorded. The brick and reinforced concrete building is listed on the National Register of Historic Places and had housed a series of retail stores during its history. By 2000, however, it was abandoned and fell into disrepair. In 2004, the owner was persuaded to donate the building to the newly created Birthplace of Country Music Alliance. Although the organization immediately began planning the museum project, it would take years for it to obtain the financing needed. During that time, some unintended quests moved into the structure.

"Before he decided to donate the building, the previous owner had all the windows taken out on the second floor, which left all sorts of opportunities for the weather and birds to come in," Boyd recalls. "The roof was in terrible condition and so were the doors. Pigeons and people had been making their home in the building. It was in pretty dreadful condition."

The project relied on historic tax credits from the Virginia Department of Historic Resources, Richmond, and the U.S. National Park Service, Washington, D.C., which obligated the team to bring the building back to its 1920s character. This required some creativity on the part of Boyd and his associate, Michael Haslam, AIA. "The actual brick was not available anymore. Even though we did a lot of research, we couldn't find anything that even looked like it; the original brick has all sorts of subtle color," Boyd says. "In the end, we specified a red brick that was somewhat similar in texture and hired a woman who paints faux finishes and has worked on historic buildings before. She actually stained all the new bricks individually to match the old ones. She did a great job."

Deteriorated mortar was replaced





with historically appropriate mortar that matched the original, and exterior concrete was repaired where required.

Boyd and Haslam also researched what was left of the window openings and discovered that four of the windows originally had been arched. The arches were recreated and the first- and second-floor window openings now feature steel windows that replicate the original frame and muntin configuration.

"The original windows had single glazing and we didn't really want operating windows in the building because it is pretty strictly climate controlled," Boyd notes. "We needed something that replicated the original windows visually as much as possible. The windows take a fair percentage of the exterior walls on two façades, so they feature insulated glass today."

Also to improve the energy efficiency of the building envelope, a new 60-mil fully adhered TPO roof with polyisocyanurate insulation was installed

Interior

The building's interior of exposed, pouredin-place reinforced concrete columns,

beams, joists and flat slabs had endured roof leaks, which caused spalling and rusted reinforcing steel. The construction team wire brushed, cleaned and coated the steel while spalled concrete areas were patched with high-strength grout.

Although the structure originally was designed to house automobiles, over the years, stud partitions had been constructed to provide retail space along the two façades that face the public street. The team removed the partitions and set about determining where to place two fire stairs and an open staircase so visitors could access the second level. "There was no stair in the building," Boyd points out. "The only way up and down was a ramp from a garage door that allowed cars and trucks to park on the second floor. Half of it had been cut away before we even got there, and it was too steep to use for handicap access. We cut away more of it and put one of the fire stairs in that location. We kept a small remnant of the ramp, which you can see from underneath, to point out where it used to be."

As a museum planner and exhibit designer, Nicholson guided much of the interior design. Early discussions centered around how to protect the artifacts without creating an art-museum-quality environment in which the relative humidity and temperature are kept at very specific levels throughout the facility. "Creating an artmuseum-quality environment would've been a tremendous drain on the museum's resources in terms of energy," Nicholson asserts. "In our case, it made sense to do microclimates, protecting artifacts in each area on a case-by-case basis."

However, as a Smithsonian affiliate, a museum-quality environment had to be achieved for traveling exhibits placed in the Special Exhibits Gallery. Mechanical systems maintain 45 percent relative humidity and 68 to 70 F plus or minus 2 percent diurnally in this area.

The historical commission required the museum's ceilings be painted a light gray. In the galleries, the team allowed the light gray to emphasize the character of the original building. In areas that required sound control and more subtle lighting, Nicholson's team installed ceiling clouds, which allowed speakers to be hidden above and sound to penetrate through while light bounces off

(continues on page 30)

>>> Retrofit Team

ARCHITECT // Peyton Boyd Architect PC, Abingdon, Va., www.peytonboyd.com **EXHIBIT ARCHITECT // studioMUSarx LLC,** Philadelphia, www.studiomusarx.com MECHANICAL, ELECTRICAL, PLUMBING **ENGINEER** // West Welch Reed Engineers Inc., Knoxville, Tenn., www.wwrengrs.com STRUCTURAL ENGINEER // Spoden Wilson Consulting Engineers, Kingsport, Tenn., (423) 245-1181

LIGHTING DESIGNER // Architectural Lighting Design LLC, Ambler, Pa., archltg.com CONSTRUCTION MANAGER AND GENERAL **CONTRACTOR** // BurWil Construction Co. Inc., Bristol, Tenn., burwil.com MEDIA PRODUCER // Hillmann & Carr Inc., Washington, D.C., hillmanncarr.com

AUDIOVISUAL ENGINEER // Electrosonic Inc., Los Angeles, www.electrosonic.com

ACOUSTICAL ENGINEER // SH Acoustics

LLC, Milford, Conn., www.shacoustics.com **EXHIBIT FABRICATOR // 1220, Nashville,** Tenn., www.1220.com

EXHIBIT STRUCTURAL ENGINEER // Keast & Hood Co., Philadelphia, www.keasthood.com BRICK AND MORTAR STAINING // Brushworks Decorative Painting, Meadowview, Va., (276) 944-5469

EXTERIOR SIGNAGE // Gropen, Charlottesville, Va., www.gropen.com

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Audio engineers created op timal sound quality, ensuring music and film didn't bleed from one gallery to another.

them. Again, thinking about the museum's financial resources, LED fixtures were used in track lighting and within cases. Similar to how the team created microclimates within the space, Nicholson also mapped the galleries' layout based on lighting.

"Natural light is wonderful for people as you move through galleries, but you have to watch it because you have collections that can obviously be damaged, so we considered where we were in the space and the type of story we could tell in that space and the kinds of artifacts to determine how the exhibits were laid out." Nicholson explains. "At the end of the exhibit, visitors' backs are to the windows; we installed solar screens that have images of country music and musicians on them that appear on the outside. But on the inside, they just work as a screen to filter the light. Essentially, we're dealing with the physiology of the way eyes react to light while controlling light. Visitors go from a darker exhibit area where the exhibits are controlled with lighting to a midrange light area and ultimately into natural light."

Boyd adds: "We were lucky the building only had a lot of glazing on two façades, so Joe was able to put most of the permanent exhibit away from windows. We were working with what we have, in other words."

In respect to the building's original character, the team only introduced design ideas that were appropriate to the history and current use of the building. Contemporary pieces complement the historic façade. For instance, new staircases are composed of tempered glass with hightech "buttons" and no vertical or horizontal supports. "We sought a contemporary take on the industrial aesthetic that would've been appropriate to the building," Boyd says. "We just wanted it to be updated and kind of upscaled but still compatible to the original."

Stained concrete floors, carpet, wood floors (in species often used for musical instruments—curly maple, walnut and ash), resilient floors and neutral paint colors complement the building's character.

Collaboration

Boyd and Nicholson relied on each other's knowledge to guide them through the design of the facility. For example, as the local architect, Boyd took Nicholson through the nearby Bristol Train Station to provide some inspiration for their work on the Birthplace of Country Music Museum. Consequently, Nicholson integrated the train-station experience into the museum. "The musicians used to come to Bristol by train and, as they were waiting to leave or were coming in, they'd play their music in the train station," Nicholson points out. "It seemed appropriate to pick up on that in the waiting area prior to the Orientation Theater."

In addition, Boyd and Nicholson relied on an array of specialty consultants and engineers whose work overlapped with their own. Audio engineers created optimal sound quality, ensuring music and film didn't bleed from one gallery to another. Audiovisual producers/integrators laid cabling for touchscreen interactive exhibits, and IT professionals set up computer rooms, all the while collaborating with mechanical engineers on temperature control. "There are so many separate systems, but you can see how this all begins to work together," Nicholson notes. "It gives you a sense of the kind of complex team that Peyton and I were working with."

Despite the complexities, Boyd and Nicholson—both of whom have been

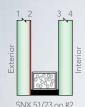
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architects for 45 years—are grateful for the experience. They note every team member and the building owner collaborated so well together that they wish they could complete a project like the museum more often. "We really ended up with a seamless integration of the building with the exhibits and full owner participation throughout," Nicholson states. "I wish I could do one of these projects every year!"

Although Nicholson and Boyd are very proud of the building and the response it

has gotten from visitors and the country music industry, they were careful not to overlook the history of the building itself. The design team pays homage to the history of the building in an exhibit. "With remnants from the shops that once were housed on the first floor, we explain what the building was and how it had been used, up to the point when it was totally closed," Nicholson concludes. "Peyton and I thought it was only right that we were able to make that gesture to the history of the building."

Materials

STEEL WINDOWS // Hope's Custom Crafted Windows & Doors, www.hopeswindows.com

TEMPERED-GLASS GUARDRAILS // Livers Bronze Co., www.liversbronze.com

ZERO-VOC PAINT // The Sherwin-Williams Co., www.sherwin-williams.com

LEATHER-BELT PANELS // Ting London, www.tinglondon.com

FABRIC-COVERED ACOUSTICALLY TRANS-PARENT CEILING CLOUDS AND WALL PAN-ELS // Whisper Walls, www.whisperwalls.com

TENSION CABLE SYSTEMS // Arakawa Hanging Systems, www.arakawagrip.com

WINDOW SOLAR SCREENS // Parallax Digital, www.parallaxdigital.com

ACRYLIC EDGE-LIT LED LIGHT PANELS // Green LED Lighting Solutions Inc., www.ledlightpanel.com

VINYL WALL TILES // Tandus Centiva, www.tandus-centiva.com

MODULAR CARPET TILES // Mohawk Group, www.mohawkgroup.com

WOOD-VENEER PERFORATED ACOUSTICAL WALL PANELS /

Acoustictrade, www.acoustictrade.com

TRANSLUCENT RESIN PANELS // 3form LLC, www.3-form.com

PERFORATED METAL SHEETS // McNichols Co., www.mcnichols.com DIGITAL HIGH-PRESSURE LAMINATE **GRAPHIC PANELS** // iZone Imaging, www.izoneimaging.com

