

By Strother Ballins

WESTOVER CHURCH PREPARES FOR 'DYNAMIC WORSHIP'

A/V Install Offers Flexible and Future-Ready Performance

Greensboro, North Carolina – It is Sunday, August 6, on Muirs Chapel Road. Traffic is at a near-standstill. Every car, truck, and SUV up ahead sits with right blinkers on, and, one by one, turns into the new Westover Church for inaugural services within this large and attractive receptacle of worship. However, this receptacle is built to hold, not contain; to Pastor Don Miller, Westover's ministry is "Uncontainable!" as his sermon's message and illustrations explain. Yes, the congregation may now reside in a bigger and better box, but it's not the place or the space that matters. It's what this ministry — in welcoming more friends through its doors from the outside world — can now do with a more capable facility.

The community vibe of Westover is complimented by its new digs — a 3,000-seat house-of-worship with deceptively traditional interior aesthetics. It is deceptively traditional because, other than an expansive theater-esque stage upon which pastors and musicians lead worship, it doesn't exude the cold, warehouse feel that many new contemporary churches have. Its atmosphere tells you that it is a place of worship, yet its seats are comfortable and its audio/visual technology capable of grand presentations — it is as grand as any theater and as welcoming as any traditional church environment.

Striking this balance required an early cooperation between a group comprised of Architect Rick Ball of Bradley and Ball Architects (Greensboro, North Carolina), Audio and Acoustical Consultant Armando Fullwood of Design 2020 (Charlotte, North Carolina), Integrator Tim Owens of Audio Ethics (Charlotte, North Carolina), and the in-house A/V team — WAV technologies — led by Director Danny Slaughter.



Photo by Jim Kumorek

A theater-style stage is ideal for Westover's 3,000-seat house, outfitted with state-of-the-art audio/visual equipment. In addition to high-energy worship, the setting is ideal for concerts, dramas and plays.



Photo courtesy of Craig Bess, V2 Marketing.

Photo (left): Westover features a full complement of Electro-Voice loudspeakers controlled by EV's new NetMax digital audio system controller.

Photo (below): Midas's National Sales Manager, Matt Larson (left) was on hand for the delivery of the Midas XL8 to Westover's Technical Director, Danny Slaughter (right).

"Rick Ball, who designed the architecture of the interior room, gave us the latitude to change ceiling design and side-wall acoustics to make the room more performance-driven," explains Fullwood, the principal consultant with the firm and the lead audio systems and acoustic design consultant for the project. "From the other side, Danny [Slaughter] gave me a lot of latitude to change speaker layout. One of our philosophies at Design 2020 is to allow the speaker arrangement and the acoustic arrangement to go hand in hand. Our core belief is that they both need to be done at the same time while having intuitive knowledge of what the worship experience is going to be like. We balance acoustic expectations with the worship experience of a particular ministry."

Acoustic Prep and System Install

The room looks and feels deceptively traditional, other than, of course, the

existence of a huge, painted flat-black stage that serves as the pulpit and main point of congregational focus. "When you look at the room, it looks like it's all sheet rock," explains Fullwood. "People would assume that the hanging ceiling panels were sheet rock. But much of it is stretch fabric and micro-perforated vinyl with bass traps behind; we can balance the room with reverb time, which gives you a lot of latitude. You don't have to do a lot of EQ-ing. By using bass traps and diffusion, the room has a nice, natural decay time. What's *really* amazing is that if you look at the actual sheet rock and the hanging panels side by side, you can't tell the difference."

All systems were conceived and configured to compliment the vast programming possibilities that contemporary worship styles can present, most notably in regards to audio. "The biggest challenge



Photo courtesy of Craig Bess, V2 Marketing.

of the project was that there wasn't a standard service format," explains Audio Ethics President Donnie Haulk, whose company served as Westover's audio system developer and installer in conjunction with Design 2020's consulting services. Audio Ethics primarily works on what Haulk calls "dynamic worship" environments for contemporary churches.

"Plays, dramas, and concerts were all going to be there," Haulk continues. "They wanted to be able to do live recording and production work, and the console is set up so they can mix multi-track with it. They are set up to meet contract rider

"THEY WANTED TO BE ABLE TO DO LIVE RECORDING AND PRODUCTION WORK, AND THE CONSOLE IS SET UP SO THEY CAN MIX MULTI-TRACK WITH IT. THEY ARE SET UP TO MEET CONTRACT RIDER SPECIFICATIONS FROM ANY ARTIST THAT MIGHT WANT TO COME IN, SECULAR OR CHRISTIAN."

— Donnie Haulk, president, Audio Ethics Inc.

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specifications from any artist that might want to come in, secular or Christian.”

Audio Ethics' Owens — an award-winning audio systems programmer — sums up the design process as “based on the original goal of versatility. All audio transports are done with AES50 on CAT-6, the backbone of the console's system. This

allows us maximum flexibility.” The expansive networked audio control system utilizes Electro-Voice RL Series amplifiers controlled by the Electro-Voice NetMax digital matrix system running IRIS-Net software, which allows comprehensive system control. Throughout the Westover campus, points of audio system connections abound.

Touring groups or audio production trucks will have just as much flexibility when visiting Westover. Downstairs, an audio panel at a mobile truck “drive-thru” offers latency-free audio flow and conversion for live mixing or recording visitors. “For a live broadcast, they can interface with a remote truck out back,” tells Owens. “They can bring in their own console. And instead of having miles of copper in there, you have CAT-6.”

The Sounds

Slaughter, who knew that a digital console-fronted audio system would best serve the needs of Westover, still had reservations about the menu-laden reputation of digital desks. A fan and regular user of Midas Venice and Verona analog live mixing desks, Slaughter called upon the help of Google during a hopeful moment.

“I typed ‘Midas digital’ and found a story about Midas’ research on developing a digital EQ section,” Slaughter recalls. “Upon realizing that Midas was pursuing a digital console, I called Telex headquarters in Minnesota and was routed to Matt Larson, the U.S. sales manager.”

After several enthusiastic conversations with Midas and a flight to their UK factory in September 2005, Slaughter began preparations to receive the very first Midas XL8 digital console to be installed anywhere in the world. A UK-based Midas service manager joined Mitch Mortenson, a Midas stateside service manager, at Westover for the install and comprehensive staff training.

Midas’ first digital desk, the XL8, offers the analog-resembling functionality that Slaughter prefers, advantages of a cross-platform and open architecture digital mixing system, and Midas’ legendary reputation for making excellent live desks. For Westover, the XL8 serves as an integral analog and digital audio distribution system for recording, broadcast,



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**“IN THE OLD ROOM,
WE HAD 30 [LIGHTING]
FIXTURES. NOW WE HAVE
SEVERAL HUNDRED.
IT’S DRAMATIC.”**

— Doug Jennings,
director of video production, Westover Church



Photo courtesy of Craig Bees, V2 Marketing.



Photo by Jim Kumorek.

Photo (above): Westover’s Midas XL8 console, located in the balcony, is the first of its type to be shipped in the United States.

Photo (left): “The biggest challenge of the project was that there wasn’t a standard service format,” says Audio Ethics’ President Donnie Haulk, whose company served as Westover’s audio system developer.

and interfacing with additional audio consoles. Its expandable hardware system allows for necessary updates determined by the end-users themselves, and — according to Midas — the desk offers “failure-tolerant hardware and connectivity — no single point of failure.”

“The XL8 was the complete opposite of any digital console I’d seen before,” explains Slaughter, who had considered other prominent digital desks, but just wasn’t satisfied with what was available. “What I mean by that is, on the surface, the XL8 is just like an analog console. It was very familiar territory. Going into the new facility, we needed a larger format desk because of the various programming changes that would be happening and the need for recalling those changes quickly. The XL8 fit the bill.”

While Slaughter never planned to configure a wholly Telex-based audio system — featuring Midas, Electro-Voice, and other Telex components — it all worked out for the best to do so and, besides, he had already selected EV PA speakers for the job. “Everything we looked at kept falling under the Telex umbrella of brands,” he explains, stating that any “cross-platform issues” he had worried about previously were suddenly not an issue. “It all made sense. It’s somewhat of a Telex showcase.” Slaughter notes that the system’s NetMax’s DSP control is greatly enhanced by the centralized control of the XL8.

Fronted by the balcony-located XL8, Westover’s 320 speaker, 108 speaker box, and 70 amplifier distributed delay system features EV X-Array Xi-1183 and Xi-1123 enclosures and EV Xsubs for the main house; EV Xi-1082 for front-fill and

under- and over-balcony; EV Evid 6.2 models for surrounds; and EV QRX 112 monitor wedges on stage. EV RL Precision series amplifiers provide power. Fed by the XL8, an Aviom personal monitoring system supplies wired and wireless monitor mixes to Aviom and Shure PSM 600 wireless personal monitors. Elsewhere on stage, select microphones and mic systems include the Shure UHF-R, Shure KSM9, and Shure Beta 87, while backline microphone and DI choices are plentiful.

“I had visited a variety of churches to prepare for this, and was excited to get into distributed audio, specifically surround sound stuff,” offers Slaughter. “When you put the EV boxes into a distributed delay configuration, it’s absolutely outstanding. Considering the room, line array wasn’t an option. We wanted even coverage in the room with no dead spots.”

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At the time of commissioning, Design 2020 fronted the testing and tuning process of the system. Over the course of several days, the system was brought to a voicing that complements the breadth of musical styles in the space while providing even coverage. "No matter where you sit, it sounds the same," declares Slaughter. "There isn't a sweet spot, but if there was, it would be by a miniscule difference."

The Sights

The visual side of Westover's mighty A/V installation project shines just as brightly as the audio side. "The A/V systems in this facility are so extensive and so high-end that we are fortunate to have on staff Doug Jennings, Jeff Neubauer, Danny Price, and Cheryl Hall," explains Slaughter on how important particular WAV technology staffers were during Westover's major systems overhaul. "The deployment of these systems and the operational training for our tech volunteers would not have happened without these individuals."

To illustrate visual improvements, Jennings — Westover's director of video production — offers a simple numerical comparison. "In the old room, we had 30 fixtures," tells Jennings. "Now we have several hundred. It's dramatic."

Dual video screens (16x9 aspect ratio) bookend the wide stage, which can be washed and treated with lights just as well as some of the best stages in the country. Five cameras — four Sony DXC-D50 and one Sony DXC-D35 — shoot for IMAG (image magnification), which feeds the video system including dual Christie Roadster S+ 12K DLP projectors and two production switchers — a 16-input Echolab and a Sony DFS-700. Three video capturing tools — DV cam tape, a Doremi Labs MPEG recorder, and a Pioneer DVD recorder — are employed.

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Photo by Jim Kumorek



Media Server, 384 ETC Sensor dimmers (82 designated for house lights) control Vari-Lite moving lights, Source Four ellipsoidals, Robert Juliat follow spots, and much more. "We have a fairly heavy programming aspect to things," explains Jeff Neubauer, production director of light and scenic services, on the need for extensive lighting options. "We have a fairly large stage, and I really wanted to be able to do color well."

Together, the power high-quality lighting and video systems complement the audio systems' quality of translating each message at Westover Church in the most effective way possible. "Our role is to connect the

Between the catwalks and the proscenium is a mesh grid that can be walked on, allowing technical staff nearly full, direct access to all possible lighting hang points.

people who come to worship to the leaders on stage," summates Jennings. "If you can't see facial reactions, you don't connect in the way that I think you should. Pastor Don is very passionate, and that passion comes out in emotion. He's a powerful speaker as a result. By putting him on screen large enough to convey that emotion and lighting the stage effectively, we help him connect with the people, closing the distance factor."

Strother Bullins is a North Carolina-based freelance writer specializing in the professional audio, music, and entertainment industries.

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