

# A ClearView of Reverberant Space: Taming the Acoustics of a Multi-function Ministry

by Dan Wothke



Christmas Celebration Service at ClearView

**M**onday — Room in the Inn overnight outreach for homeless in the Nashville area.

Tuesday, Thursday and Friday — Outreach for Youth basketball practice.

Wednesday — Teaching and classes.

Saturday — Four hours of basketball games followed by teardown of equipment and setup of 750+ chairs and final preparation for Sunday.

Sunday — Two services for over 1,200 people.

This is a typical week for the main sanctuary at ClearView Baptist Church in Franklin, Tenn., not even including the many other ministries that meet on the multi-building campus. The main sanctuary at ClearView is an actual basketball court, complete with polyurethane-coated

wood floors, hoops and backboards, both mobile with wheeled platforms and suspended from the ceiling.

Yes, the facility serves many purposes throughout the week. But, when Sunday arrives, the primary purpose of the facility is realized with two contemporary worship services. Michael Smith is the Associate Pastor of Worship at ClearView, and between he, his technical staff and a multitude of dedicated volunteers ClearView completes its continuous transition on a weekly basis.

The church has tripled its growth in the past 10 years, and to add in more chairs has continued to remove walls to open up pockets around the rectangular shaped sanctuary (roughly 50- x 84-feet). Each pocket has Tannoy I8W delay speakers with dbx DriveRack processing. Mackie SA1232 mains are rigged from the main trusses — about 27-feet high, one on each

far end and two in the middle — and have been in service over the last decade.

Audio-wise, however, a new dawn is emerging, with JBL VRX932 enclosures leading. For subwoofers, the JBL SRX728 enclosures are slated to replace the current Mackie Fusion, currently located under the far ends of the stage. The middle portion of the stage — where the band leader, vocalists and minister deliver the message — is on large wheels, allowing it to be rolled back under the band portion to create additional floor space. All of this adds up to a lot of footage needing to be filled with heavenly sound, even as the original acoustics bring things back down to Earth.

## LONG-TERM APPROACH

One of the first steps in the evolution of the 18-year-old facility was to hang a thick, black movie theatre-style curtain

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along the back wall to cover the brick surface. From there, an Aviom headphone system for musician in-ear monitoring was implemented. Aside from the benefit of level control, another major plus for using the in-ear system was communication. The band leader has a headset microphone that is routed only to the channel on the Aviom; this allows him to talk directly to the band during worship. Michael leads the congregation and cues the band leader, and that is passed on to the band via the microphone. To confirm all is communicated well, Michael has the same microphone fed into his mix and,

Both Mikes agree that the treatment of the walls, especially the rear wall, has a great impact on the musicians, who, before, were constantly battling with the slap for the flat surface, just 50 feet in front of them.

during special events, he will wear a lavaliere microphone for communicating directly to the band.

The only stage monitors are on the protruding center portion of the stage, and are used for background vocalists. For the choir, the team decided to “break” a pair of Bose self powered column speakers ... according to Bose, at least. The tight field of coverage that the Bose offered made it the perfect fit to hang from the ceiling at the front of the stage and point down towards the choir stands. Two of these were able to cover the area for the choir. Regarding the “break,” the Bose components were removed from their bases, which is neither supported nor recommended by Bose. However, by removing the base (which serves as the amp) they were able to extend the cabling to reach behind the curtain and attach it to

the bases hanging on the back wall.

With the quick turnaround regularly required in the room, the sound booth is located in the back right corner (stage perspective) and is a unique design. It is built upon a one-inch steel-reinforced platform and pivoted in the back corner, allowing the platform to twist out into the sanctuary on Sunday AM and then back into the pocket so that it is out of the way during the week — no cables to disconnect, nothing to adjust. The rear wall is full height, so when the sound booth is spun into the dormant position, no stray basketballs find their way into the booth during the week.

### SEVEN-YEAR COMMITMENT

Consider all of the factors: the growth of the congregation, the full band plus occasional choir and orchestra, the modifications to the room that would help control the slap, and the amplified stage volume. All of these items were a great help, but still did not resolve the issue with the amount of slap produced in the congregational part of the sanctuary. Once the leadership decided that they would remain in this facility for at least the next seven years, they decided to take the step to treat the walls.

The primary challenge was the upper 20-foot portion of the entire room — pri-



When it comes to acoustic treatments, let go of all hang-ups except for the ones that hold up the panels.

marily painted drywall, a hard and reflective surface that doesn't play well with 90-plus decibel live music, even louder when the orchestra participates. Michael began

calling upon local contractors for initial visits. After reviewing bids — and factoring in cost, aesthetics and effectiveness — ClearView decided on Auralex Acoustics through a local dealer, Corner Music in Nashville.

The Auralex panels consisted of six on the front walls, 18 on the rear and 10 on each side: four- x eight- x two-foot panels with beveled edges, 44 in total. ClearView had an entire color palette to choose from, and decided upon “Light Moss” fabric to match the vibe of the room.

The exact layout of the panels was completely up to ClearView, as long as the correct number of panels was on each wall. Michael sat down with Microsoft Visio (a straightforward program for easily creating room layouts, among other purposes) and toyed with different designs, ultimately determining a pattern that would work aesthetically.

The mounting of the panels was painless; first of all, the price included installation, and, secondly, each panel is hung in the drywall with a fish hook-type anchor. This hanging method assured ClearView that panels can be removed or relocated if necessary and, due to no use of adhesives, will not damage the panels or the walls. This will allow, for example, experimenting with the total number of panels or configuration of the panels on the side walls in order to dial back in some of the natural decay of the room.

How much did this Auralex aesthetic and acoustical upgrade cost? Total package including consultations, diagrams, panels and installation was in the \$12k range, which equals approximately \$272 per panel. And Michael has been extremely pleased with the results, both in sound and aesthetics. He noted that it changed the look of the room tremendously; unless you gander up at the two baskets suspended near the ceiling, you don't notice it is a gym on Sunday AM.

To the company's credit, Auralex overachieved. Because of the non-abrasive mounting style of its panels, experimentation with the room's new acoustics is easy. During my visit at ClearView, I noticed bass trapping was absent from the room and Mike credits that to the natural diffusion in the corners and the pockets off of the main room. Both Mikes agree that the treatment of the walls, especially the rear wall, has a great impact on the musicians, who, before, were constantly battling with the slap for the flat surface, just 50 feet in front of them. As for the wood floor, it is not an issue on Sundays due to the use of the fabric coated chairs and the best absorbent of all: a church full of people.

*Dan Wothke is the media director of Belmont Church, located in Nashville, Tenn.*



This panel discussion came to the consensus that Auralex acoustic upgrades rule.

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