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FACILITY SHOWCASE

Now that the studios are assembled, it's hard to tell the Control Room was a prefabricated studio kit.

The Production Studio is a near mirror image of the Control Room.

A MOODY MOVE

The assembled studios have a drywall façade built around them.

Moody Bible Institute rebuilds to accommodate four stations in four cities

By Chriss Scherer, editor

When Moody Bible Institute decided to rebuild its studio complex for the stations in central Alabama, a process began that brought the operations of stations from several cities into consideration. Ultimately, a grand plan was developed to improve the efficiency of handling four stations located in different cities. A key element of the construction design involved a plan that would allow for a more future-proof setup.

Moody started serving the broadcast area with WMVV in Dixons Mills, AL, and WMFT in Tuscaloosa, AL. These cities are about 90 miles apart. In time, WMVU in Forest, MS, and WRNF-AM in Selma, AL, were added to the cluster. The operation remained in Dixons Mills during this time.

As typically happens, the space for the four stations was insufficient. General Manager Rob Moore began looking for a new location. In his research, he considered the rural location of Dixons Mills, but the greater population center was based near Tuscaloosa. In addition, the Tuscaloosa station covers part of Birmingham. The search began for a new site in fall 2007.

By summer 2008, part of the second floor of an office build-

ing was leased. This space had six offices and one larger open space. The arrangements were made to occupy this space and begin building studios. The first step: Make one office a temporary studio for the morning show. An ISDN circuit was used to deliver the signal to the station's transmitter in Dixons Mills.

By the end of the summer, Moody had leased the entire second floor, and Chief Engineer Paul Lierman was hired to complete the project.

New studio plan

Any studio design project pays special attention to the acoustic properties of the studios themselves. The standard practices of isolated walls, double studs and floating surfaces are applied. In Moody's case, the cost and effort of building traditional studios had a major drawback: If another move or redesign is considered, all the studio construction materials would be lost. With this in mind, the stations looked at using pre-built studios. Products from VocalBooth were selected for the two main studios.

The open area for the two studios is about 20′ x 40′. The two VocalBooth studios are placed back to back. The control room measures 12′ x 16′, while the production room measures 12′ x 14′. Once they were set in place, a false wall was created for cosmetic reasons. This false wall hides the HVAC, power and other connections for the rooms.

With the alternate studio plan came a potential challenge: The VocalBooth studios are heavier than traditional drywall construction. A concern was raised that the cost savings of the pre-fab units would be lost if building upgrades were required, but fortunately, the building was designed for a heavier-than-normal load when it was built. This foresight easily accommodated the weight of the rooms. However, there was another obstacle: The building did not have an elevator.

The original construction plan called for the facility to be built and move-in ready in six months. While the pre-fab studios saved construction time, some time was lost when the decision was made to add an elevator to the building. Some additional time was lost when the HVAC needed to be reworked to accommodate the VocalBooth Studios and technical operations center.

Once they were delivered, the VocalBooths were assembled and in place within two days. Then the work began to assemble the studios. Graham Studios furniture was delivered and assembled in a week. Then the Axia Audio console/router system – which had been delivered earlier and was sitting in storage – was ready to be installed. The original temporary air studio was then converted into the news room.

An existing office was converted into the technical operations center.

The router-based system allows the four stations to take any source to any destination. Likewise, any studio can be patched to feed any station as needed. This flexibility was a significant change from the four stations' earlier facility.

The control room and production room are essentially mirror images of each other. They have different furniture and production has a slightly smaller console, but otherwise the operation of the rooms is mirrored.

The studio facility originally used a Ku-band satellite feed to deliver programming to the four transmitter sites, but there were complications with rain fade. This was converted to a C-band delivery system during the project.

When the project began, the entire building was fed by one electrical service. This plan was modified so the second floor is on its own electrical service feeder separate from the rest of the building. The facility is also set up for a backup generator to be installed at some point in the future.

So while the project had its own challenges along the way, it took about one year to complete. The new studios were used on June 1, 2009. The complete switchover to the new satellite feeds was made July 10, 2009.

Equipment List

Amb-OS Media AMR-100
Andrew AVA5-50
Aphex Compellor
Auralex mic windscreens
Axia Element and Livewire
Belden coaxial cable
Broadcast Electronics Vault II
Broadcast Tools silence sensors, switchers
Cisco Systems network switches
Crescend STL equipment
DBX 166XL
Denon DN-C635
Eaton Powerware
Electro Voice RE27 N/D
Graham Studios studio furniture
KaYou Communications, C-band contractor
KRK RP5
Linksys network switches
Marantz PMD570
Mark Antenna P9A72GN-U
McPhilbun on-air lights
Middle Atlantic racks
Moseley Starlink SL9003Q-2STLAN
Neutrix XLR connectors
O.C. White mic booms
Radio Systems StudioHub+ Matchjack CAT-5 adapters
Radyne/Comstream uplink/ downlink equipment
Sony MDR-7506
Tascam TU-690
Telos One
Tiernan satellite receivers
Times Micro Coax LMR400
Trilithic Easy Plus
VocalBooth sound booths