St. Luke's

EPISCOPAL CHURCH, HILTON HEAD ISLAND, SOUTH CAROLINA

By John McKeon

Guitars and drums may not be commonly associated with "mainstream" Protestant churches, but a growing number of traditional congregations are moving to more varied musical programs and redesigning their sanctuaries to support these new offerings.

St. Luke's Episcopal Church on Hilton Head Island, South Carolina, is a recent example. Following a recent renovation, St. Luke's hired a local firm, Post One Audio, headed by designer Ken Lewis, to spruce up its audio system so that choirs and combos could be heard as clearly as the spoken Word from the pulpit.

Acoustics consultant Dave Rochester of Technical Audio Services sees the St. Luke's installation as part of a trend—a trend in which supposedly more conservative mainstream Protestant denominations are also exploring musical performance and multimedia as tools of worship and outreach.

"Churches in general are all swinging toward musical performance,"

a traditional church builds a new approach to audio.

Rochester says. "They're putting more emphasis on being able to reproduce music rather than just speech amplification."

Ken Lewis, himself an Episcopalian, says his own preferences are in line with the more traditional forms, yet he took on the St. Luke's expansion project with enthusiasm. In part, he felt challenged to provide a highly flexible audio system within a tight budget. Moreover, he adds, the church's beautiful interior and recent renovation created an opportunity to

provide a creative audio solution that would greatly enhance worship.

A "new look" in both structure and worship

In its renovation, St. Luke's enlarged its altar area and added a second transept. The church organ, which had previously been in a traditional loft location, was moved down to a position alongside the pulpit, with a separate performance platform added on the opposite side to accommodate piano, guitar, bass and drums when they were needed.

"Several nights a week, they were having a more evangelical, swinging, rock and roll sort of service," Lewis says.

The emphasis on music was driven by Rector Gregory J. Kronz, himself a guitarist, who frequently used his instrumental talents as part of services and sermons. St. Luke's has a large choir that performs virtually every Sunday throughout the year, as well as St. Cecilia's Choir for teens, and a handbell choir.

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An informal group, St. Luke's Singers, performs at a special "St. Luke's Sing" service the third Sunday of each month.

Music has been in the air at St. Luke's for some time. After the renovation, though, there was more air for the music to fill. That's because the renovation involved opening up the old ceiling for a vaulted design, and breaking through sidewalls to add space on both sides of the altar.

"It was a highly reverberant room," says Rochester, while Lewis notes that no acoustical modifications were made to the room. And the highly open design meant cables, speakers, and other components needed to blend discreetly into their surroundings.

An economical but high-powered answer

The solution was a combination of a BSS Audio Soundweb system for control via digital signal processing, plus MacPherson IS15 speakers and a variety of other peripherals.

The Soundweb was an ambitious system for a relatively small-scale installation, but Lewis says it made sense. "We budgeted $4,200 for the Soundweb, for one box basically to handle everything," he explains. "The remote control system was another $1,400. I don't know any hardware configuration with that kind of capability that you can get for that cost.

"The Soundweb can be programmed to *be* whatever hardware you need," Lewis adds. That is, it replaced functions that previously required separate, rack-mounted components [mixers, EQ's, compressors, delays etc.] with software processing on built-in circuit boards. The system selected for St. Luke's accommodates eight inputs and eight outputs. "You're not locked into a certain hardware configuration," Lewis continues, noting that system changes in the future can be accomplished through relatively simple reprogramming of the Soundweb rather than physical replacement and re-cabling of components.

Programming the Soundweb requires a PC, but all remote control functions thereafter can be done from a handheld controller from anywhere in the church. The system provides 128 different presets, which should be ample for all future needs, Lewis says.

For immediate use, Lewis provided St. Luke's with a number of preset audio configurations for different services. "It makes a difference," he notes, "whether it's an early morning service with only 50 people in the pews or a later service with 500." Audio adjustments for these scenarios, as well as for different kinds of musical involvement, are push-button simple, Lewis says.

The Soundweb also pays off in helping to meet the challenges presented by the sanctuary's new design, Rochester says. "Basically, we were playing to three separate rooms," he explains, meaning the main seating area of the church and the two side areas served by the new transepts. "The BSS Audio system allowed us to tailor each area's equalization and other functions from the Soundweb."

The other critical component of the new audio system was speakers, and Rochester recommended MacPherson IS15's for several reasons. He had previous experience with MacPherson Monolith speakers, and had seen several new models at a recent industry trade show. The IS15's, he said, offered an ideal combination of "small footprint and good coverage."

What's more, Rochester says, these units were ideal because "they're very pleasing and very musical speakers."

Lewis comments that the chosen speakers "have a 90-degree dispersion pattern that covers each of the areas very nicely." Each speaker is 30-inches wide by 17.5-inches high and only 8.5-inches deep, weighing in at 65 pounds, hardly behemoths considering the areas they must serve.

Lewis designed a configuration of four speakers, one serving each transept and two directed down the nave, one angled upward and one angled down. All speakers were suspended amid the open beam work overhead, with cables and mounting wires discreetly hidden.

"MacPherson was great about custom staining the speaker cabinets," Lewis says, adding that matching the specified appearance was a key to minimizing the intrusiveness of the suspended speakers.

Each speaker is served by a Crown power amplifier located in an equipment room behind the altar platform. That's also home base for the Soundweb. "The entire system fits on a single 20-space rack," Lewis says. A sound mixing board could be added easily at a future date, says Rochester, as can additional inputs and speakers.

St. Luke's is also exploring an assisted listening system, which will also be supported by the Soundweb.

Microphone inputs include Crown PZM low-profile "flat" microphones on the altar and Crown goosenecks at the pulpit and lectern. The latter were an accommodation to user preferences, Lewis says. The flat microphones functioned equally well at the pulpit and lectern, but [certain presenters] were accustomed to more traditional mics and couldn't quite get comfortable with the flat ones, Lewis says.

In addition to the audio components and associated wiring, Post One also installed a separate electrical sub-panel to serve the system, along with a variety of remote on/off switches and other electrical devices, all tied to the remote control system.

The Soundweb can also route output to a standard audio tape cassette, which St. Luke's uses for recording sermons and other materials. These tapes are both distributed to shut-ins and offered for sale to church members.

The new audio system at St. Luke's Episcopal at Hilton Head puts several new tools at the command of a Rector and a church striving to meet the same challenge faced by other churches all over the country: spread the Word, attract new worshippers, and enhance the worship experience.

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