

PROJECT PROFILE

Grace Chapel

Designed and Installed by Tone Proper AV



After operating as a mobile church for more than twenty years, Grace Chapel opened a multi-purpose facility in Wilsonville, Oregon for church services and community outreach. In addition to a sanctuary (which doubles as a basketball/volleyball court), the facility hosts classrooms, meeting spaces, and even a nonprofit coffee shop.

Challenges

- The main loudspeaker location is immediately in front of the proscenium wall. Any rear-radiating energy would reflect off the wall, interfering with speech intelligibility and clarity of music.
- The wide footprint of the audience area required a solution with precise pattern control to optimize coverage.

Solution

Nick Moon from Tone Proper AV was chosen to create a high-fidelity sound system for church services and other performances in Grace Chapel's new sanctuary. Moon installed five FL283T Line Array Modules on either side of the altar for the main coverage. Fulcrum Acoustic's patented Passive Cardioid Technology dramatically reduces the rear low frequency radiation from the FL283T which would otherwise reflect off the wall. "Most people don't realize how much low frequency energy radiates from the back of most line arrays; they aren't as directional as many assume," says Moon. "Fulcrum's Passive Cardioid mitigates that leakage without adding all this extra equipment."

"The FL283T presents such an effective use of resources. I love working with it," Moon continues. "You can deploy a lot of modules without needing too many amp channels. Plus, the vertical coverage from each unit is impressive on its own. We have five FL283Ts in each array but with other products we would need six or seven units to achieve a similar performance."

The compact Sub218L subwoofers provide ample low frequency support for the system within the small envelope of the concrete cavities built into the altar. "Between the room treatment and the system design, this is one of the best sounding multi-purpose worship spaces out there," says Moon.

Project Details

Location

Wilsonville, Oregon

Product Category

Houses of Worship

Project Type

720 seat capacity multi-purpose worship space

Fulcrum Products

(10) FL283T Dual 8" Subcardioid Line Array Modules

(4) Sub218L Dual 18" Direct-Radiating Subwoofers

Supporting Products

Powersoft Amplifiers

Linea Research DSP

