

SOUNDMIRROR

Boston, MA



PROJECT DESCRIPTION

Soundmirror is one of the world's premier independent classical music recording and post-production studios. Telarc, Philips/Polygram, Angel/EMI, and Teldec are just a few of the prestigious record labels that regularly turn to Soundmirror for on-location recording and post-production editing. When it came time for Soundmirror to add to and upgrade its facilities, the company turned to Acentech for complete acoustics consulting services. Two new studios were built, adjacent to each other, within an existing building envelope that tightly defined their maximum size. The bigger studio provides excellent acoustics over a large listening area to accommodate an editor and several clients. The smaller studio is normally used by an editor, occasionally with one assistant.

Complete acoustical isolation between the two adjacent studios was critical since they are often used simultaneously. Acentech made measurements of mixing-sound source levels, estimated wall sound transmission loss and ambient noise, and made recommendations prior to final construction. The resulting isolation is excellent; no intruding music sound is audible in either studio.

We designed several key features: a modular system of wall absorbers and quadratic residue diffusers to permit flexible adjustment of the studio acoustics; custom resonant absorbers that were tuned to the lowest frequency modes of each studio; and special floor absorbers to mitigate mid-bass response variations caused by interference effects from floor reflections of the monitor loudspeakers. We also focused on air conditioning systems to reduce equipment and diffuser-generated noise below the threshold of audibility. The air conditioning can be turned on and off with no audible change in the background sound level.

Acentech

CONSULTING SERVICES

- Room acoustics
- Sound isolation
- Mechanical system noise and vibration control

REFERENCE

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