

Texas Dream Theatre Seeks To Replicate Capitol Records Studio C

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In this issue we take a look at a home cinema that really bridges the gap between a commercial screening room and a residential system. The approach was to replicate, as accurately as possible, what movie industry professionals see and hear; to get as close as possible to the true audio and visual intent of the movie creators.



A Theatre Without Compromise

A very satisfied, and longtime home theatre customer of Sound Lab Designs assigned owner Ernie Blumenthal with a new task: to create the very best possible theatre in a new and very large home he was building—a theatre without compromise.

Blumenthal was contracted to build a theatre designed to Dolby Atmos standards. He turned to Jochen Veith of JV Acoustics out of Germany as the architect. Jochen has worked around the world, creating premier recording facilities, and partnered in designing the Atmos room (Studio C) at Capital Records in Hollywood, California.



15,000-cubic-foot room.

Approximately 27 feet wide by 35 feet deep, this new theatre was built like a recording studio with two acoustic access doors and room-within-a-room construction to completely isolate it from the rest of the house. The floor has a 5-inch slab of concrete sitting atop acoustical isolation pads, which in turn sits atop the 4-inch slab of the main house. Walls are separated by a gap with acoustical treatments in between.



The floating floor is made up of nine inches of concrete, sandwiching acoustic isolation pads.

The interior was installed by Brad Keeler of Progressive Designs out of California to the architect's specifications, with acoustic treatments and diffusers. Diffusers are located on the walls, and acoustic treatments are hanging on wires from the ceiling, all to add an appealing visual element to their acoustical merits.



Custom-made isolation transformer.

A custom-made, 50,000-watt isolation transformer with voltage regulation provides clean power to all the theatre equipment. After completion, the room was tested and surpassed all design specifications. At 110 dB full bandwidth pink noise, there was an almost 80 dB drop at all frequencies outside the room. The A/C system was designed to be totally silent, and a separate unit was used for the equipment room for the amplifiers and projector.

The loudspeaker system used is PMC's flagship QB1-XBD fully active loudspeaker for the front mains and a QB1 active loudspeaker for the center. Utilized are twenty-two PMC Wafer 2 surround loudspeakers in a Dolby Atmos configuration. Two PMC XBD active rear subwoofers were used as acoustic elements to help tighten up the bass response in the room. A StormAudio ISP 3D.32 ELITE Immersive Sound audio preamp/processor was used for the surround sound processing with 32 output channels. Two days were spent calibrating the sound system before commissioning it.



Diffusers and acoustic isolation panels on side walls.

Custom Home Theatre Design



PMC LCR's mounted behind the 22-foot screen.

The video is a Digital Projection 4K laser projector with 30,000 lumens and an anamorphic lens for the 2:40 screen. The screen is a Seymour-Screen Excellence Adjustable Ratio Theater (ART) motorized masking system and Enlightor Neo 4K acoustically transparent surface. The screen is 22 feet wide with vertical masking down to 4:3 ratio for older movies. A Lumagen video processor was used for scaling and aspect ratio control. The projector was color calibrated by Digital Projection, and Seymour-Screen Excellence visited the jobsite to adjust the screen masking to verify that the aspect ratios were correct.



Rear view of equipment rack.



22-foot-wide Seymour-Screen Excellence screen.



VPI turntable in foreground.

Appealing to the audiophile in the homeowner, the back of the theatre features a top-of-the-line VPI turntable, McIntosh phono preamp and custom-made stand. Because the room is built like a recording studio, it's designed to play back all types of music and movies, from mono to stereo and full surround. The turntable's placement was carefully chosen so as not to get feedback coming from the loudspeakers.

The two-year project was completed in 2019 for a homeowner client that simply wanted the best. This studio-grade theatre was designed to achieve truly the finest sound and picture quality available today.

Overall cost of the theatre including the equipment was over \$1 million. **WSR**

About Sound Lab Designs

Founded in 2010 by Ernie Blumenthal, Sound Lab Designs of Richmond Texas is focused on high-quality sound and video systems specializing in premium brands like Seymour-Screen Excellence, PMC, StormAudio, Crestron, and Savant control systems, and more. Ernie has been in the industry since 1986. He began his career at Home Entertainment selling many specialty brands like McIntosh, Klipsch, B&O, Nakamichi and other high-end brands from the time.