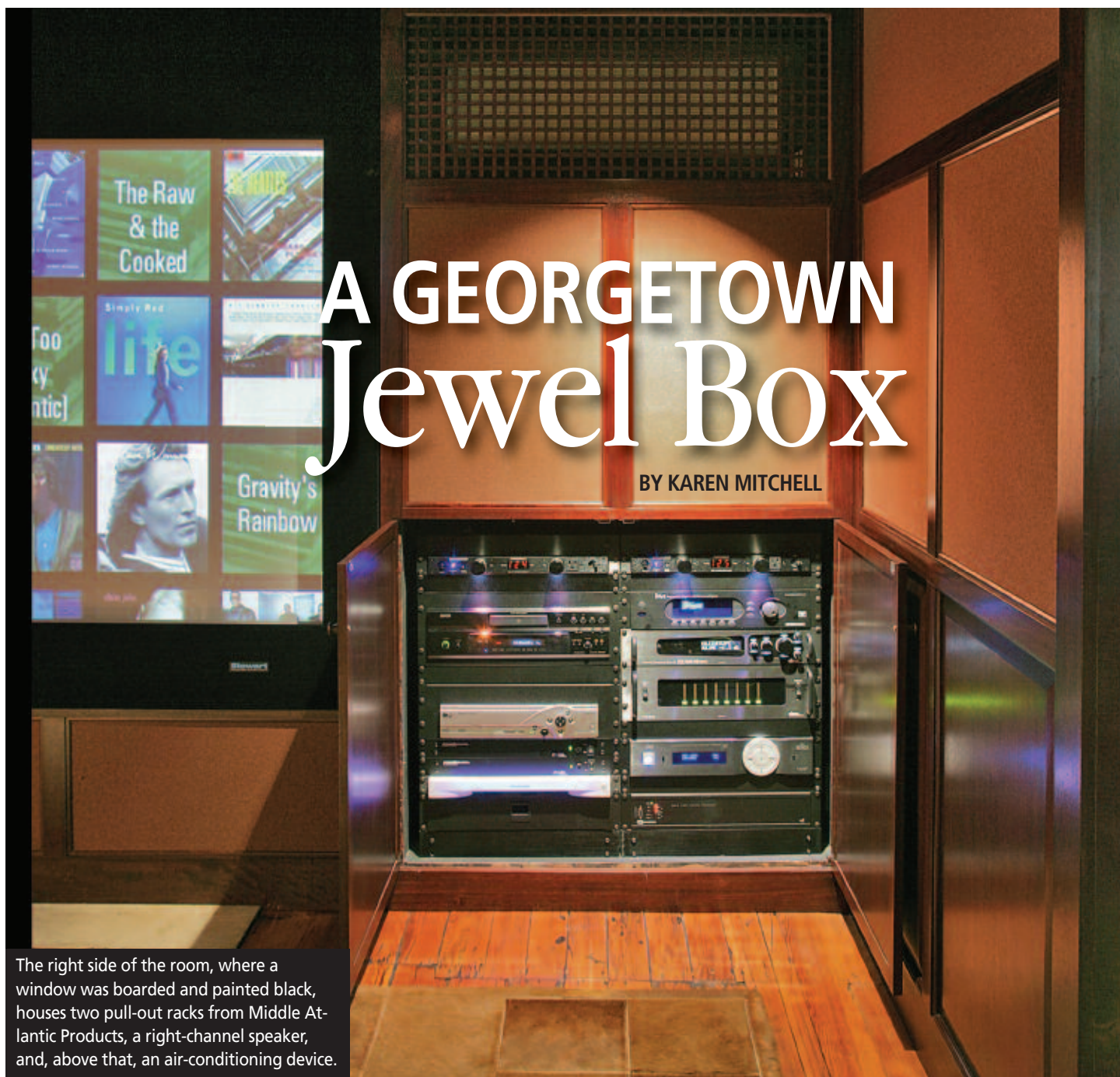


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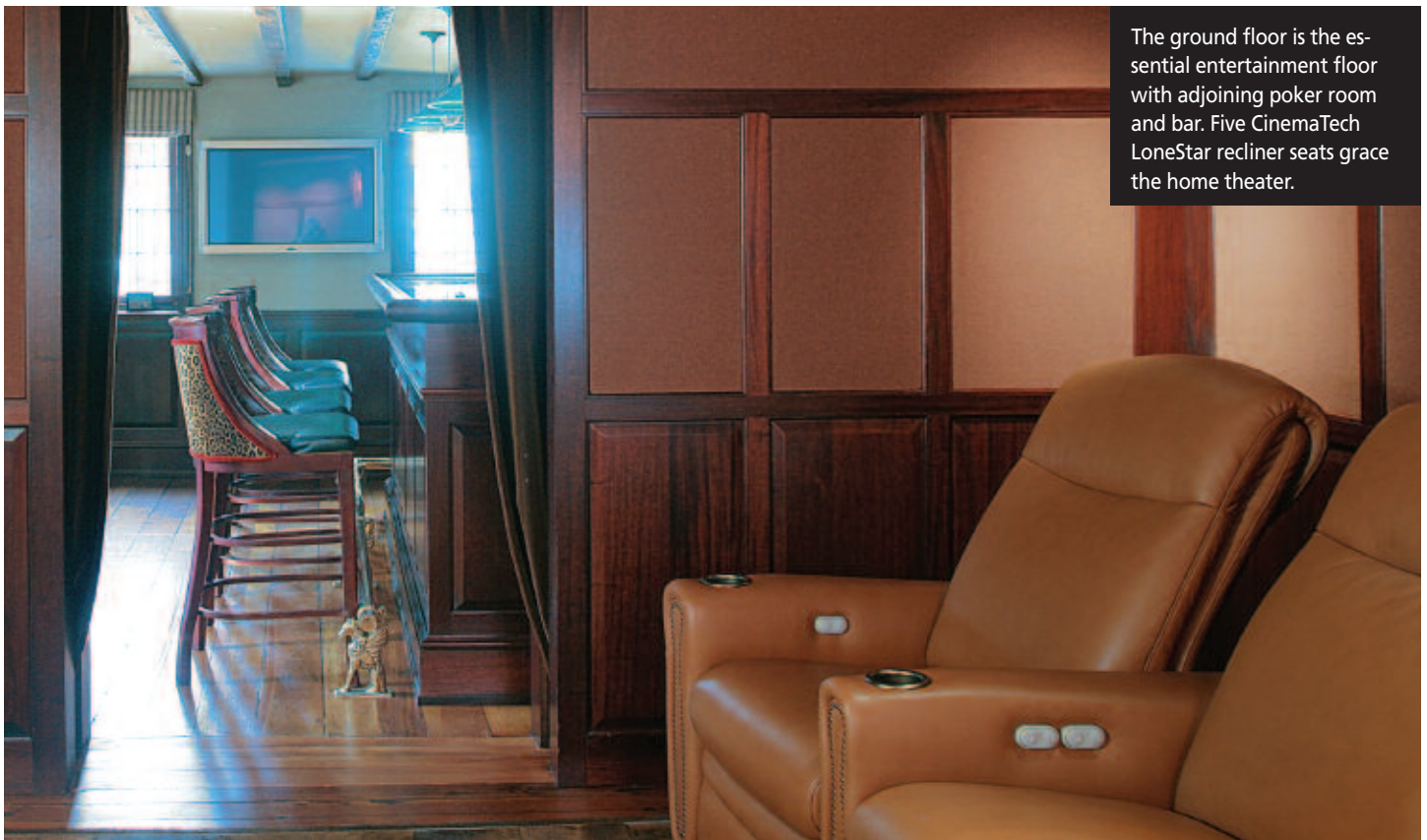
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A GEORGETOWN Jewel Box

BY KAREN MITCHELL

The right side of the room, where a window was boarded and painted black, houses two pull-out racks from Middle Atlantic Products, a right-channel speaker, and, above that, an air-conditioning device.



The ground floor is the essential entertainment floor with adjoining poker room and bar. Five CinemaTech LoneStar recliner seats grace the home theater.

Georgetown may be replete with political secrets, but Tim Rooney knows where the architectural and acoustical gems are hidden. Rooney is president and CEO of All Around Technology, a 25-employee systems integration company in Rockville, Maryland. His company does most of its work in the Washington D.C. metro area, as well as design large custom projects for existing clients with homes in locations such as Aspen and Nantucket.

▶ FEATURE

Georgetown, in particular, is an area in which houses may be much bigger inside than they appear to be from the street. “You never know what you’ll see when you walk in; the lots aren’t always square and there have been numerous renovations done over the centuries. People get very creative with interior spaces in these old homes, and there are amazing surprises inside.”

All Around designs and builds a lot of what Rooney calls “little jewel boxes,” complex rooms with high expectations for aesthetics and performance. A recent project

for a dedicated 13x15-square foot theater on the ground floor of a brick home in Georgetown is a perfect example of this type of retrofit/renovation. Working within the existing footprint of the original 18th century house entailed multiple challenges, including those posed by room size, street noise, climate control, and the local historic review board.

The result was a one-row, five-seat theater with CinemaTech LoneStar recliner seats. The system features a Runco VX-2 projector, Stewart Screenwall Electrimask

The original plan called for stretch fabric between the ceiling joists but because they are all hand-hewn and irregular, All Around went for a cleaner look by stretching fabric over the entire ceiling.



► FEATURE A GEORGETOWN **Jewel Box**

Greyhawk RS Micro-perf screen, ADA Cinema Rhapsody MKII surround processor powered by an ADA 8150 amplifier. Equalization is accomplished by AudioControl Diva EQ. Front speakers are Revel Gems for left and right, Revel Voice for center, and four JBL S4A are used for side and rear speakers. The front subwoofer is a Revel B15, while the rear sub is a Velodyne HGS-10. The rack system is from Middle Atlantic Products, and source components include Kaleidescape, DirecTV Tivo, Denon DVD-3910, and miscellaneous distributed house HD video sources.

MARYLAND INTEGRATOR BUILDS TINY THEATER INSIDE ARCHITECTURAL **GEM**

Peter D'Antonio, (a.k.a. "Dr. Diffuser") from RPG Diffuser Systems, served as project consultant and spec'd all acoustic devices, according to Rooney. "RPG has an amazing reputation in the commercial world and they have the ability to provide custom sizes and finishes," he said.

A TECH-SAVVY CLIENT

The client, an owner of a large commercial technology integration company working in the government sector, purchased the four-story free-standing home with the intention of a complete renovation that would restore the house to its original splendor. To do so, he hired D.C. architect Dale Overmeyer, who works extensively in historic renovation projects.

The client also wanted a theater dedicated to movies, Rooney explained. "The ground floor is the essential entertain-

ment floor with adjoining poker room and bar. Because he understands AV and acoustical environments from his commercial background, he recognized that home theater was a different animal, and he was referred to us," he said.

The client's company, a commercial Crestron dealer, was installing a whole-house automation system, raising concerns about warranty and project completion. "We didn't want to depend on their system for control of our equipment," he said. "I suggested that they buy a redundant control processor and remote from us, the MC2E and MT1000, and they thought it was a great idea. Working with the client's engineers, we developed a program that allowed seamless interoperability between the two systems while maintaining autonomy for both."

Rooney's team, which includes John Sugden, a Leesburg, Virginia, architect with comprehensive knowledge in home theater design, created a home theater plan that stayed within the envelope.

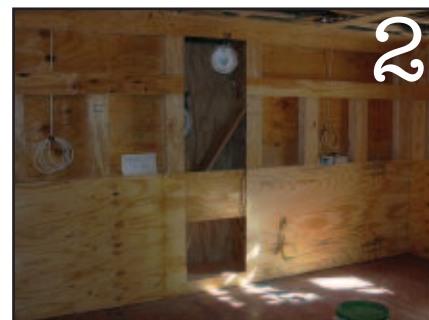
ARCHITECTURAL CHALLENGES

One of the architectural challenges was made more difficult by the nature of the structure, which was so old that there were no parallel surfaces in the room. "The floor and ceiling were not in parallel planes, so the room height varied," Sugden said. "It was the same with wall structures which had settled so much so that neither east/west nor north/south was parallel. It was a giant parallelogram. All the millwork had to be hand-fitted on site."

The theater backs up to a ground floor entrance hallway with a door that was part of the historic structure, and as such could not be altered. In addition, the ceiling height of the room from the existing floor to the bottom of the exposed joist was seven feet, four inches, and the original wide-heart pine floorboards could not be removed as they, too, were historic.

The client knew he needed HVAC to cool the room independently of the other spaces, Rooney said. "A theater has warm bodies and a sealed acoustic environment that tends to make it hot and stuffy," he explained. "But getting ducts

STEP-BY-STEP Retrofit



Working within the existing footprint of the original 18th century house entailed multiple challenges, including those posed by room size, street noise, climate control, and the local historic review board. Here are progress photos showing All Around Technology's handy work.

under that floor was impossible. We would have liked to have stepped down to pick up an extra foot of height but couldn't, because the sleepers that supported the floor were in dirt."

The solution was to incorporate two low-noise Mitsubishi wall mount air-conditioning units with separate coils outside, into custom-made mahogany millwork, latticed, detailed, and painted black. European-style flat radiators were then integrated into the millwork to accommodate the heating season.

Like other historic elements, an original fireplace behind the screen had to remain basically intact. But Rooney was able to convince the client to allow removal of the fireplace surround. The millwork was then stored, freeing up extra inches. "We had the flue bricked up and used the firebox itself for the subwoofer," he said. "A mortar shelf was created above the flue for the center channel."

The millwork on either side of the chimney provided ideal locations for the short racks and speakers. The right side, where a window was boarded and painted black, houses the two racks, right channel speaker, and, above that, an air-conditioning device. On the left of the chimney, identical cabinetry houses the left channel speaker and the other air-conditioning unit.

Rooney's team, which includes John Sugden, a Leesburg, Virginia, architect with comprehensive knowledge in home theater design, created a home theater plan that stayed within the envelope

A busy bus stop and four-way intersection just outside the room provided a hefty dose of exterior noise. The solution was to seal the remaining two windows with acoustic caulk and add a one-half inch pane of acoustic glass on the inside of each. In addition, Lutron blackout shades were incorporated into the millwork behind Roman shades.

Because the team wanted the project to be as stealth as possible, and with the low ceiling and a large 3-chip projector, a solution was worked out to avoid placing it horizontally. Instead, the rear wall depth was increased to accommodate a projector mounted vertically, which projects the image off a mirror to the screen.

"We had some space underneath the Runco, a pocket for a second subwoofer," he said. "The original plan called for stretch fabric between the joists but be-

cause they are all hand-hewn and irregular, we went for a cleaner look by stretching fabric over the entire ceiling. We were able to do this using a Snaptech fabric system requiring only an additional three-eighths inch of height."

For the doorway between the theater and the bar, All Around hung dark red heavy velvet curtains to isolate the space and to add an acoustic absorption to the room because the doorway occurred at the first reflection point for the speakers. "The curtains hang significantly high up in the pocket which helps them do an amazing job of minimizing noise from the adjacent room," Rooney said.

The myriad acoustical enhancements were proven successful when the final calibration reports came back from the tuning specialists. "It needs to test well in order to sound great, and this room does both," Sugden said.

The theater is the smallest, purpose-built, high-performance, acoustically correct room that All Around has designed. "This room has all the elements of what we consider to be a complete home theater," Rooney said. "It proves that in high-end AV, good things can come in small packages."

Karen Mitchell is a freelance writer in Boulder, Colorado.



Please call us at 301.656.5100 to schedule a private consultation or for more information.
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