



## The Arts & Crafts

*Baumeister Electronic Architects Brings 90-Year-Old Former Summer Cottage into 21st Century*

by karen mitchell

**When it was young—an Arts & Crafts summer cottage in an enclave adjacent to a private golf course—enjoying home theater meant taking in the sights and sounds of passing golfers.**

What a difference 90 years makes. That pre-World War I cottage has blossomed into a spectacular family home complete with a \$600,000 dedicated theater true to the home's architectur-

al origins and a system featuring Genelec's AIW 26 Compact In-Wall Speakers, Crestron's TPMC 10 Control Tablet, and a Barco CineVersum 120.

The two-story residence has undergone progressive renovations and add-ons through the decades, but none quite so spectacular as its 21st century upgrades by Baumeister Electronic Architects, of Niles, Illinois. The lifestyles sys-

tems integration firm, founded in 1990, specializes in new residential construction in the \$2.5 to \$6 million-plus range, both in downtown Chicago and in communities contiguous to Lake Michigan and beyond.

Unusual projects are not daunting for Baumeister, who formerly worked for Universal Recording Corp., helping to design sound sys-



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he's a management executive—entertain often and had specific goals for their system. They wanted to eliminate the need for multiple light switches, to unify forced air zones, and to add centralized audio with a library and DVD and CD system. BEA installed a Crestron control system for lighting, climate, A/V, distribution, telephones, and computer applications.

"They wanted a dedicated theater but had to put it off," Baumeister noted. "For one thing, the house had a crawlspace but no basement. We did some pre-wiring so we wouldn't hurt ourselves for future capabilities."

After the basement was dug out, the room remained an empty shell for a few years, but the clients were willing to take the time to design correctly. When pours for the room became smaller

# of Theater

tems and the theater for Oprah Winfrey's Harpo Studios. A current BEA venture involves a three-story downtown Chicago glass house cantilevered over two steel concrete legs. BEA's wiring has gone into the pours of cement.

"We came onto the scene for the Glencoe house about six years ago to do automation and distributed audio and video throughout the house," said BEA president, John Baumeister. "The floor plan was Escher-esque, with an expansive world of hidden doorways and nooks and crannies, so it was hard to figure out the flow."

The clients—she's an aeronautical engineer;

than first anticipated, however, the theater design had to be adjusted. "The only way to do it was with a post in the middle of the room," Baumeister said. "It lends a visual sheltering for the projector to rest against."

Eleven custom-made Cinematronix seats in the Stickley design style, oak trim, and a wet bar with built-ins combined to give the theater its Arts & Crafts image, explained project architect Steve Liska, of Stephen Knutson Design, Evanston, Illinois. "We planned specialized theater lighting and decorative lighting, and we had a constant communications process back and forth with

Baumeister," Liska said. "All of Baumeister's systems are flexible for any design style. We also created some faux beams and soffits to divide spaces and hide some of the complicated ceiling structures. And a proscenium arch adds focus to the stage where kids can play and perform, and guests can enjoy karaoke."

When you walk down the stairs from the main floor, you feel like you've entered a different time and place, Baumeister said. "All the areas of the space are visible, the door to the wine room, the kids' video gaming area, and the lobby bar. The clients wanted a multi-purpose theater that is simple to use. The theater doors are generally open."

The theater was slated for a Crestron Touch Panel 1700 but ended up with the TPMC 10 web-enabled touch screen, so clients can surf the web, use e-mail, and control theater and light functions at the same time.

"This is the first time that we've put that touch panel in," Baumeister said. "We're the largest Crestron dealer in the Midwest, and this is a solution-driven product that helps us provide what clients want. As we met with these clients—multiple times—products changed. As

soon as they saw the newer lighting controls, they wanted more of them for a guest bedroom on the lower level."

Baumeister sourced the Barco CineVersum 120 through specialty distributor Sumiko Audio, of Berkeley, California. "We were looking for higher end but value-driven type of electronics systems," he said. "This one is bulletproof. There's nothing else like it at that price, \$50,000."

The Genelec AIW 26 Compact In-Wall space-saving speakers, three inches deep, were selected for their accuracy. "Genelec's are active speakers; they have power amps designed to match," Baumeister said. "They had always served the professional market and recently came to the consumer realm. These have an amazing dynamic range and active monitors to put out the sound we needed. The clients didn't want curtains; they wanted the room as long as possible without taking out wall space. With some previous construction the basement wasn't as large as they had wanted, constricting the amount of people it could hold, and we didn't want speakers to take up depth."

Lead programmer for the project, Baumeister's Brad Omori, says it was exciting to see so

## Home Theater Equipment List

Aprilaire 8844 Thermostat with RS-232 Port  
 Barco CineVersum 120 + Master 3-Chip DLP  
 Barco Digital Master Link Cable  
 Barco PM-L Projector Mount  
 Barco Systems VI-2 HDTV Cards (2)  
 Crestron C2ENET-1 Ethernet Card  
 Crestron CAEN-7X1 Automation Enclosures (2)  
 Crestron CLW-DIM Wall Box Dimmers (6)  
 Crestron CLW-DIMS Wall Box Dimmers (4)  
 Crestron CLW-SLVD Slave Switches (2)  
 Crestron CLX1DIM4 4-Zone Dimmer Modules (6)  
 Crestron CLX-1DIM8 8-Zone Incandescent Dimmer  
 Crestron CLX-2DIM2 Two-Circuit Dimming Module  
 Crestron CNX-B2-12 Keypad Scene Control Switches (7)  
 Crestron CNX-RMCLV Video Room Interface Box  
 Crestron CP2E Control Processor  
 Crestron CT-1000 Color LCD Touchscreens (2)  
 Crestron PAC2 Lighting Control Processor  
 Crestron ST-COM RS-232 Communications Module  
 Crestron TPMC-10 Control Tablet

Crestron TPMC-10 Docking Station  
 Da-Lite Cinema Pro Contour 110-inch Projection Screen  
 Escent Fireball CD Controller Integrator  
 Escent Fireball DVD-100 DVD Video and CD Music Manager  
 Genelec AIW 26 Compact In-Wall Loudspeakers (9)  
 Genelec RAM1-401 Rack Adaptor Kits (5)  
 Hughes HD Satellite DirectTV Receiver  
 Lexicon MC-8 Preamplifier/Processor  
 Lexicon RT-10 Digital Video Decoder DVD Player  
 Middle Atlantic Products Rack System  
 Monster Cable  
 Monster Interconnects  
 Monster Power HTS-5100 Noise Filterer  
 Pro Video CVC870 EX Color Bullet Camera  
 Rane MLM-82 Rack Mixer  
 Shure ULXS24/58 Wireless Microphones (2)  
 Sony DVP-CX777ES 400 Disk Progressive DVD/SACD Players (2)  
 Sony KLV21SR2 21-inch LCD Display  
 Sony RDRGX7 DVD-R  
 Sunfire EQ Solitaire 10 True Subwoofers (2)

## BEA's Project Tracking Process

It takes a village to manage a design/installation project from the initial customer meeting through final client review six months after completion. That's a lot of paperwork.

To lighten the paper load, and to keep team members on the same page, Baumeister Electronic Architects turned to cyberspace. Its project tracker system, implemented through in-house customized Filemaker database software, provides a repeatable, measurable way to track jobs, says company president John Baumeister.

"A specific tracker is launched by the consultant closed the job, with check-offs for required programming, start/completion dates, systems to be installed, such as lighting and climate etc.," he said. "There's a notification about any new products our engineering department needs to know about. There are also sections for notes, and one for industry partners, such as theater designers or security companies."

Different shaded areas designate project phases such as pre-wiring and follow-ups. All 30 employees can monitor project status at any given time. The automation program sends e-mails to prompt post-project review. PM managers can press buttons that e-mail various departments on actions that need to be taken. Perhaps most important is a check-box function for the staff accountant to provide notification when deposits and contracts have been received.

"Information on upgrades and problem areas from the field also are e-mailed to sales staff and project managers," Baumeister noted. "The sales department edits the material and passes it on to the client, builder and architect."

The project tracker came about when BEA's IT director, Mark Hubert, suggested that the company go paperless. Baumeister, his director of operations Jim Moran and chief engineer Greg Rankin subsequently took a CIA class on project management for companies with tech-savvy executives who lacked business acumen. They, with the help of the rest of the company, developed a formula for what type of information constants they needed, and streamlined it for the software application.

"The tracker handles data all the way from check-in hours on jobs to job diaries," Baumeister said. "If a builder promises to do something, and doesn't, it's documented on the system."

Baumeister says that he has struggled with how to achieve consistency in a custom industry. "I'm not a hoarder of knowledge; the more staff knows, the better," he said. "The system doesn't allow us to move forward unless everything is taken care of up to that point. It's a blueprint for success, and without my employees' help, it never would have happened."

—Karen M.

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"This was our first job with the Tablet and it was lots of fun to discover how it works," he said. "It has great graphics."

Installing the CineVersum 120 was a challenge, he added. "It's derived from a commercial install, and it took some finessing as all the connections have to be precise."

Omori also upgraded programs in the home to new styles, rolling with the changes, Baumeister said. "The biggest challenge was that this is an organic project where, all of a sudden, the clients want to work on another area. Above the theater is a family/media room that they wanted upgraded, so we always had to be thinking about what was necessary for that. We had the electrician run piping between rack locations and important locations to make sure we were future-safe. Everything is interconnected. And we replaced a lot of older lighting controls with Crestron, both upstairs and down. The clients love Crestron's functionality."

It's tough to contain and oversee every aspect of a large ongoing project, Baumeister conceded. "Whenever we did something, we had to be on top of impacts in other areas. While it's a centralized distributed system there are major pod locations. We did their master bedroom a year before the theater, installing surround sound with a plasma lift TV."

Baumeister says that it's always satisfying to deliver for clients who want things to be done correctly and expect great things. "Because this client is well-versed in technology, she had spreadsheets based upon the sources she wanted, and we had engineering meetings with her. It was a fun project with a great client who allowed us to be creative, and to come up with solutions. They counted on us but had a clear vision of what they wanted, and if we said no they accepted it."

A subtle compliment came when Baumeister was chatting with the clients near their kitchen one day. "The phone rang, and they immediately looked over my shoulder at the caller ID on the touchpanel behind me. They really use the systems all the time. And they're really interested in what's new."