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## Modern Building Design Demands Partnership Between Tech Designers and Architects

San Francisco, CA (PRWEB) April 23, 2009--

“It has been coined AIR (Acoustically Integrated aRchitecture) and we have been practicing it for much longer than we've had a name for it,” says Steve Thorburn. His company, Thorburn Associates (TA), which specializes in building technologies and acoustical engineering, counts numerous architectural firms among its 800-plus clients and is exhibiting at the American Institute of Architects National Convention, April 30-May 2 at the Moscone Center. Says Thorburn, “Green building ideals and LEED, the role of technology in daily life, the placement of mechanical/technical components and the needs of human gathering spaces all require specialized technical solutions in the conceptual stage – they all need AIR.”

Thorburn, whose company is headquartered in the San Francisco area with additional offices in Los Angeles and Raleigh-Durham, is a familiar spokesperson for his industry as an educator and a columnist, and as current president of the Themed Entertainment Association. Concerning AIR, he explains, “AIR is a best practice in which the interface of disciplines - architecture, acoustics, audiovisual engineering, lighting, interior design - creates spaces that foster human community - offices, campuses, institutions, theaters, retail, and worship.”

In the Bay Area, two recent, high-profile projects of Thorburn Associates – the San Francisco Federal Building and De Anza Community College Performing Arts Center –

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illustrate how deeply intertwined technical design is with today's architecture, and how the concept applies to office buildings and theaters alike.

### **San Francisco Federal Building – Speech Privacy**

Located at Seventh and Mission Streets, the GSA San Francisco Federal Building is a new, 18-story, 605,000 square-foot office complex completed in 2006 and managed by the U.S. General Services Administration. The LEED-designed structure features extra-deep stair landings with built-in window seats - “conversational stairwells” designed to foster and facilitate interaction between employees who meet on the stairs. An acoustical wall treatment to absorb the sounds of conversation so they don't spill out of the stairwells into the office spaces was designed by TA in cooperation with the architect, Pritzker Prize recipient Thom Mayne of Morphosis.

A somewhat more unusual acoustical feature TA provided for the same building aptly illustrates the new and sometimes unexpected design challenges of LEED building. The San Francisco Federal Building relies on the thermal mass of the building and natural ventilation for its heating and cooling. The windows can open at night and close during the day. Without the traditional background noise of HVAC systems, conversations can be overheard in the open-plan office areas. Thorburn Associates' solution was to provide a sound masking system by which audio speakers (incorporated into the indirect lights in this case) emit an appropriate level of background noise.

“The special design conditions encountered in the San Francisco Federal Building are something we'll see again and again as more and more developers choose to build 'Green,' observes Thorburn. “To earn LEED credits for indoor air quality and reduce energy use, many building designs opt for natural ventilation. It's essential to go into such a project with a realistic assessment of noise levels around the building, because when you open up the shell, you opt out of complete control over the acoustical environment. A synergy of strategies is called for to achieve the ideal, integrated result.”

GSA Public Buildings Service Commissioner David Winstead cited the San Francisco Federal Building's "outstanding architecture in terms of integrated engineering, energy efficiency, and delivering high-quality workspace."

### **De Anza – "All buildings are now theaters"**

"In fact, AIR has always been in play when designing and constructing a theater," remarks Thorburn. "De Anza, with a first-rate design team and strong backing from the school and the community, takes the practice to a very high level of polish."

LEED-silver certification is being sought for the new, 20,485 square-foot-building on Stevens Creek Boulevard that houses the De Anza College Visual & Performing Arts Center in Cupertino, Calif. This unique new resource for the arts in Silicon Valley, which held its grand opening March 6-8, features a 400-seat theater and adaptable and technologically advanced learning spaces. Hired by DES Architects, Thorburn Associates was acoustic and audiovisual consultant, with Steve Thorburn as the primary technical designer. In addition to designing the presentation system, TA oversaw installation and commissioning of the audiovisual and projection systems.

The multi-purpose hall serves as both a teaching and performing space. The theater was designed to accommodate lectures, dance and music (both plugged and unplugged), cinema and some drama, and to facilitate rapid changeovers from one use to another. To accommodate this, elements are designed to fly up or slide out of the way so that one configuration can give way to the next quickly and easily. Sliding acoustical panels line the walls on either side of the theater and reach from floor to ceiling. They can be adjusted manually to tune the room. Adjustable acoustical reflectors are suspended over the stage and the audience and operate in conjunction with the acoustical band shell. There are two loudspeaker systems: one for lectures, musical and spoken word performances, and one for cinema. The latter comes down with the screen when needed, and automatically stows at other times. There are a digital video projector and a pair of film projectors with dual 16mm/35mm capability.

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Putting it into the context of AIR, Thorburn explains, "What we're now seeing is that the integration of acoustics, engineering and architecture that is standard practice in a performing arts center is also a necessity in most every new project, because of the amount of audiovisual equipment and other technology involved. As a result, they all require a level of integrated design in the early stages comparable to what is common practice in theater development. In a very real sense, all buildings are now theaters."

*Thorburn Associates is exhibiting April 30-May 2 at the AIA National Convention: Booth 4084 in the north exhibit hall of the Moscone Center, San Francisco.*

### **About Thorburn Associates Inc.**

Thorburn Associates Inc. is a professional service firm providing acoustical consulting and technology system engineering and design for the commercial, corporate, leisure, residential and retail industries, and for houses of worship. Thorburn Associates works in both new construction and renovations, as an independent consulting firm offering unbiased designs to improve communication and fully realize the functionality of all projects. Headquartered in Castro Valley, California, with regional offices in Los Angeles and Raleigh-Durham, NC, Thorburn Associates has been recognized as one of the leading firms in the acoustical and audiovisual system design industry. In the course of 17 years in business, the company's projects have received multiple awards, from the International Communications Industry Association (ICIA-InfoComm), the American Institute of Architects (AIA) and the Themed Entertainment Association (TEA). Thorburn Associates Principal Steve Thorburn, PE, LEED AP, Associate AIA is sitting president of TEA. Visit [www.ta-inc.com](http://www.ta-inc.com).

### **Thorburn Associates is Press-Friendly!**

Do you need information or quotes pertaining to audiovisual technology, design, acoustics or engineering? We've got the expertise and we'll cooperate with your editorial deadline. Thorburn Associates principal Steven J. Thorburn, PE, LEED AP, Associate AIA is a respected industry spokesperson, educator, columnist and current president of the Themed Entertainment Association. Contact us for a timely response.

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