
THORBURN ASSOCIATES INC.
Acoustic and Technology Consultants
Newsletter

Fall 2003

Thorburn Associates (TA) is excited about our participation in one of the most interesting emerging markets, "themed retail." This market includes animatronics as well as light, audio and video displays in retail venues such as large department stores, specialty shops, and yes, restaurants. The goal for all of these venues is to separate us, the patron, from the almightily saw buck! The retail market has learned, through demographics, that teenagers have substantial discretionary income in terms of allowance and pre-college spending. Because of this, we have worked with our clients to develop audio and visual experiences that attract and maintain the buyers in the environment without impacting the buyers in the adjacent purchasing zones. We were fortunate enough to be asked to present at retail conferences in Chicago, Miami and Las Vegas. We also presented at the International Communications Industry Conferences in Las Vegas and Orlando.

Retail Design

Themed Retail is a balance between saturation of exposure to audio and video stimuli in "teen" departments versus the peace and serenity of high-end jewelry/perfume departments. Far too often, the energetic, loud, vibrant, environment in a young teenager/juniors environment is immediately adjacent to the sensual atmosphere found in the perfume/jewelry zones of a store. The primary challenge is to upgrade the aural experience of a retail environment while allowing for completely different "atmospheres" in adjacent zones. In order to accomplish these goals we provide the following services:

Owner's Representative

From initial design and budgeting to final installation and testing, TA can provide management and supervision for all phases of a project's technical design and construction. As an independent consulting firm, TA does not stock or sell product or earn commission on the products we recommend. We have no bias towards a particular product line, except to make sure that it fits our client's needs. This assures our clients that they receive the most cost-effective system!

Acoustics

The acoustics within a facility include 3 main components: room acoustics, sound isolation, and mechanical noise and vibration control. Harsh acoustical environments can drive guests away.

Room Acoustics: Excess reverberation can render paging and background music systems unintelligible. The quality of sound within a facility is directly affected by the physical shape of interior spaces combined with wall and ceiling finish materials. By working with the design team we can identify surfaces and finish materials that will promote natural acoustics without impacting the project budget.

Sound Isolation: Careful thought needs to be given to how much noise (if any) is acceptable from adjacent zones, and which areas need to be insulated from other zones. Our team evaluates the acoustical properties of vulnerable areas like exterior and interior walls, doors, ceilings, and floors. This lets us recommend the most cost effective construction methods and materials for improving the overall sound isolation.



Mechanical Noise and Vibration Control: Mechanical and plumbing systems which are not properly isolated from the guest will distract them and interfere with their shopping experience. TA can review designs for planned or existing facilities and recommend cost-effective methods for controlling noise from all types of mechanical or electrical equipment.

Video and Projection Systems

Most systems are more complex than just a series of monitors or projectors plugged into a VCR. There are many distribution, timing, and control issues to address, especially if you want the visual images to be in "sync" with each other or with specific events. TA can assist you in selecting the technology that best meets your needs, determining the distribution system requirements, and incorporating separate video stations, video walls, projection systems, or other large format displays.

Audio Systems

Great sound systems are the backbone for any retail environment, though it usually takes more than one system or zone to cover any facility. Different zones need separate dedicated systems: children's, young adult, gift wrap, customer service - all require different marketing messages/atmospheres. Issues include presets, feedback suppression, automatic volume control, and pre-recorded messages. TA helps you get the most out of your audio since we not only understand the impact of equipment selection and location, but also account for these systems interacting with the facility's acoustic properties.

Control Systems

The primary goal of a control system design is to incorporate all facets of a system's operations into one user-friendly environment. All of TA's audio, video, and show control system designs are developed with the intention that the system will be operated by non-technical personnel, thus designs are straightforward and intuitive.

Acceptance Testing/System Verification

After the audiovisual system has been installed, TA can act as the audiovisual technical expert for you. TA will conduct onsite tests that verify the performance of your audiovisual systems, and verify the contractor's compliance with contract documents. We will make adjustments to the systems to optimize performance. TA will generate a "punchlist" of items that will clearly define shortcomings in the system that, when corrected, will give you the best performance out of your system. Services include: Audio system testing and tuning, DSP program adjustments, Control system verification, Video display testing and tuning.

Seminars at Lunch:

For the continuing education of your staff, Steven J. Thorburn, PE, CTS-D, CTS-I, or one of our senior consultants is available to visit your office and give AIA-approved one-hour seminars on the following topics:

- *Site Planning*
- *Videoconferencing*
- *Plumbing Noise Control*
- *Audiovisual System Design*
- *Office Acoustics*
- *Projection Systems*

For further information or to schedule a class, please call TA at 510-886-7826.

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THORBURN ASSOCIATES INC. Acoustic and Technology Consultants

Corporate Office: Castro Valley, California Tel: 510-886-7826
Regional Office: Burbank, California Tel: 818-569-0234
Regional Office: Morrisville, North Carolina Tel: 919-463-9995

TA@TA-Inc.com	General Information Email Address
www.TA-Inc.com	Web Site
eNews@TA-Inc.com	Newsletter Issue

