

Sonex One Panels Help Improve Broadcasts from California State University, Dominguez Hills

Broadcasting courses and resultant student programming emanating from California State University, Dominguez Hills are noticeably clearer today. The university made its broadcast studio and adjacent control room acoustically sound, with materials from illbruck Architectural Products.

“Our academic television production facilities date back to at least the early 1970s and were originally constructed to be used as a theater department facility,” says James Sudalnik, Ph.D., a professor in the Communications Department at California State University, Dominguez Hills. “When the university needed television broadcast facilities, the space was revamped for that purpose. Yet students and faculty struggled with sound reverberation and inconsistency in the space for many years, primarily because it was never treated with the proper acoustical materials.

“Since the space was treated with illbruck acoustical products, our transition from an analog to a digital facility has been made easier, and our student and faculty users are much happier,” says Dr. Sudalnik, also coordinator of Electronic Media Programming and Production. “The change has been an incredible boon to our production quality and morale. We could not be more pleased.” The university enlisted the services of California-based acoustical consultant Don Behrens to analyze the production space and recommend solutions.

“California State University, Dominguez Hills had noticed poor tone quality in its recordings and broadcasts emanating from that studio and was frustrated by not being able to get maximum use from the facilities. They avoided scheduling recording or editing activities in rooms adjacent to the studio and control room because sound bled between rooms and affected broadcast quality,” says Behrens. “Noise from HVAC; studio equipment; fans; automobile, airplane and pedestrian traffic; conversations in hallways

and adjacent rooms makes it difficult to record without sacrificing dynamic range.”

Behrens used a computer model to analyze the conditions and acoustics of the space, and concluded it had severe reverberation and sound transmission problems. Sound was transmitted from room to room due to lack of acoustical material in wall spaces to block sound transmission. Sound reverberated around the studio, bouncing off the hard surfaces within the room, including painted concrete walls, tiled floor and ceiling rafters. Adding to those problems were holes cut in walls to facilitate cable connections — both an aesthetic and sound transmission problem.



Behrens recommended the university use acoustical products from illbruck Architectural Products. “illbruck is one of the few companies that has effective products that absorb sound in all frequencies to reduce reverberation and to block sound transmission,” says Behrens.

“California State University, Dominguez Hills was concerned first and foremost with a product that could help it achieve excellent acoustical performance,” says Behrens. “Appearance and ease of installation also

were criteria. The SONEX product looks great and could not have been easier to install.”

Three walls of the control room were treated with 1,000 square feet of light gray SONEX One Panels. The fourth wall of the 20 feet by 15 feet by 18 feet room is composed of floor-to-ceiling windows covered with heavy drapes. Three walls of the broadcast studio were treated with 2,700 square feet of SONEX One Panels. The wall between the two rooms was treated with 900 square feet of PROSPEC Composite to reduce noise transmission from the studio into the control room. The 50 feet by 50 feet by 18 feet studio also was treated with SONEX One Baffles, individually suspended from the ceiling above the lights. The baffles absorb sound on both sides to reduce reverberation. All of the illbruck products installed were specified with a Hypalon coating for added durability and easy cleaning with a damp cloth.

“SONEX Panels also covered the holes that had been cut in walls to run cable, which solved two problems in one — acoustical control and an aesthetic fix,” says Behrens. SONEX One sculpted panels and baffles are made from illbruck’s exclusive willtec foam, which is Class 1 fire-rated. willtec foam provides excellent sound absorption across all sound frequencies and helps prevent noise buildup that interferes with speech intelligibility. SONEX One Panels have a noise reduction coefficient (NRC) ranging from 0.85 to 1.10.