

Case Study:

IAC Acoustics Sound Barrier

Stanford University
Stanford, California



IAC Acoustics Noishield® Sound Barriers Quiets Classes for the James H. Center

Stanford University's James H. Clark Research & Educational Facility consists of three buildings that face one another with an amphitheater in the center. There were classes conducted on all three floors of each building as well as the amphitheater, restaurant and a coffee shop. The noise levels from the HVAC system for the Clark Center interrupted classes that were being held on the second and third floors and in the amphitheater, and created a very noisy environment in the restaurant and coffee shop.

IAC Acoustics Turn-Key Services

IAC Acoustics was called in to design, engineer, and fabricate our Noishield® FS/S sound barrier panels and structural supports for this substantial project. One of the main challenges was to install the barrier system without penetrating the rubber roof. We worked with a local structural engineer and developed a mounting system that

held the barrier wall an average of 2" off the roof deck. IAC Acoustics was able to complete the project within eight weeks of receiving the order, two weeks ahead of schedule. That included all the structural calculations, approval drawings, fabrication of the structural steel and installation.

Manufacturing

IAC Acoustics supplied 105 Noishield FS/S panels — 5" thick, 24" high (on center) of various lengths up to 16', 21 structural columns, and mounting accessories. IAC Acoustics panels are constructed of cold-rolled A-60 steel, fabricated using 14 gauge materials for the solid side, and 20 gauge materials for the perforated side of the panel.

Fill materials used are fiberglass, non-corrosive, resistant to attack by fungus, fire-resistant, vermin-proof and non-hygroscopic. The fill material is also free draining, self-supporting and retains physical and sound absorptive characteristics after long-term exposure to the elements. All materials have a Class A fire rating and the panels have an NRC 1.05.