Behind the Historic Façade

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Emerson College's Paramount Production Center - an Acoustic Challenge

The entry to the new black box theatre in the Arcade Building, part of the new Paramount Center at Emerson College.

Emerson College in Boston, Mass., used a mix of renovation and new construction to create The Paramount Center. Along with the massively reworked Paramount Theatre, originally a 1,500-seat 1932 movie house turned into a 590-seat proscenium theatre, the Paramount Center project also included the redevelopment of the adjacent Arcade building. For both of these buildings, Emerson worked with architect Elkus Manfredi, acoustical consultants Acentech, and theatre consultants Auerbach Friedlander Pollack.

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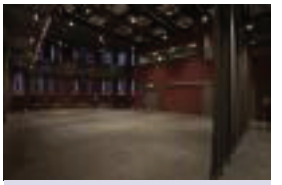

The interior of the black box theatre in the Arcade building, part of Emerson College's Paramount Center

Once the home to both the Bijou Theatre and B.F. Keith's Theatre, the Arcade building was gutted except for the historic façade which was incorporated into the front of the new Paramount Production Center complex. The ground floor has space on the street front for a restaurant and in back houses the new Emerson scene shop. The 4,500 sq. ft. shop provides woodworking, metalworking and painting facilities along with a full, two-bay loading dock which links to a freight elevator that provides access to the upper floor black box theatre, studio spaces and sound stage.

The Paramount Production Center upper floors include a 125-seat flexible black box theatre; a 180-seat Bright Family Screening Room capable of supporting six projection formats with full 35mm, 16mm and digital projection support; a sound stage for students to work with sets, props, cameras and lighting; and nine rehearsal studios that range in size and are designed for dance, music or theatre applications. There are also floors with a mix of media studios, practice rooms, classrooms and faculty offices. The top four floors of the facility provide dormitory space for 260 students.

The second floor black box theatre incorporates the façade of the Arcade building, including its arched windows-all of which are equipped with automated blackout blinds. This

space has a pipe grid from SECOA, a surrounding technical gallery and a full lighting system with distributed data, dimmed and switched circuits, which High Output, Inc. provided. The black box space is adjacent to the scene shop's paint deck and the two spaces are connected by a large set of doors allowing the paint deck to double as scenery storage or a rear projection space. The second floor lobby of the Paramount Theatre next door is also connected to the black box theatre lobby.

Acentech consulted on the acoustical design of the facility, providing guidance on room acoustics, sound isolation between the stacked spaces on this tight urban site and mechanical system noise control. Robert Berens, Supervisory Consultant for Acentech, led the acoustical consultation for the project explains, "These are facilities, that on a typical campus, would be in separate buildings and there would be no acoustical interplay between the spaces. Here they were doing it all in one building. The Paramount Production Center portion of the project was challenging acoustically-putting a black box theatre directly underneath a film screening room; directly next to the soundstage; and then a restaurant was underneath it; and the dormitories topped off the whole thing; that was the big acoustical challenge."

Though it was new construction, tight program for the spaces meant there weren't any easy solutions for Acentech. "We would have loved to put non-sensitive uses between some of the spaces," explains Berens. "For example, at the Tufte Center, another Emerson space that we consulted on, they have stacked theatres, but they have a layer of offices between two theatres. Here we didn't have that luxury. We were given a program that had a black box that was two stories high; we had a story and a half cinema stacked above that; we can only go so high; and there are dorm rooms above all of this."

Acentech had to come up with some clever ways of maintaining some acoustical isolation between the black box theatre that's directly underneath the film screening room. "The sensitivity is there and the potential for being really noisy is there on both levels," comments Berens. "So we introduced a concrete floating-slab floor that was independent underneath the film screening room; there is a pretty good layer of acoustical isolation between the two spaces. The sound stage is close to a box within a box. It has a floating-slab floor and it has a drop ceiling. The first level of dorms are on the other side of the ceiling of the film screening room and the sound stage, so we had to consider student noise from upstairs. We couldn't really do a floating-slab floor in the dorms on the seventh floor because of cost; it was impractical. So we did it from the ceiling of the rooms below, which had its own challenges since a ceiling in a sound stage has a lot of stuff hanging from it."

Acentech used products from Kinetics Noise Control, Inc. for the floating-slab floor isolation system and vibration isolation hangers for the ceilings. Boston Light & Sound provided and installed the audio, film and video presentation equipment in the various spaces.