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CASE STUDY
Middlesex School | Concord, MA

Smoke Vents Help Massachusetts School Set the Stage for Extensive Renovation

A Massachusetts school for students in grades 9-12 confronted a difficult space concern with a complete renovation of the campus theater. Architects prepared a plan that completely re-imagined the space and incorporated automatic smoke vents from The BILCO Company to provide an important layer of life and property protection.

The Middlesex School, based in Concord, Mass. sought a space where its entire population, approximately 400 students and 100 teachers and administrators, could congregate. Previous assemblies were held in a theater that could only accommodate about 400 people. Some people were required to stand during performances, and the building – built in the 1960s – needed a major overhaul. With campus space at a premium, school officials decided a major renovation of the theater was the best solution.

The scope of the renovation on the 55,000 square foot project at the school's Bass Arts Pavilion and Danoff Visual Arts Center was extensive, detailed and challenging. The team at CBT Architects needed to maintain the existing footprint of the building and preserve the theater's original walls and roof structure. They also faced environmental constraints.

The centerpiece to the project is the main stage area, which now includes balcony seating and has seen capacity increased by nearly twenty five percent. Architects also designed a visual arts center where students will find dedicated spaces for ceramics, digital photography, digital media and studios for drawing and painting. There is also a gallery that showcases work from professional artists. The upper floor of the visual arts center includes two art history rooms, a multi-purpose space and a mindfulness studio that overlooks a nearby pond.

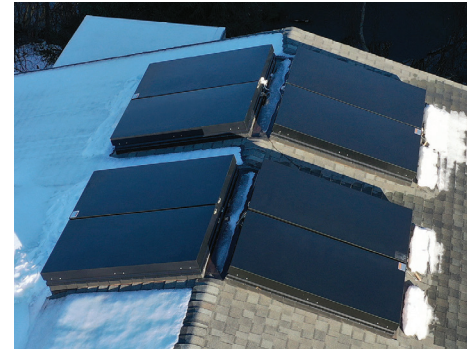
The project included automatic smoke vents to ensure life safety for the building occupants. Smoke vents protect property and assist firefighters in bringing a fire under control by removing smoke, heat and gases from a burning building. They are activated upon the melting of a fusible link and are ideally suited for large expanses of unobstructed space such as factories, warehouses, auditoriums and retail facilities.

The automatic smoke vents selected for this project featured an acoustical sound rating to block outside noise from entering the building and motor operation to allow the vents to be open and closed remotely for building ventilation. Acoustical smoke vents carry both an STC and OITC rating for sound transmission and are available with an ISO 140-18 rating for rainfall sound.

Photos: Sarah Hamlin/Everchangingphoto



Top: Middlesex School in Massachusetts recently completed an extensive renovation project of the school theater. The renovation included the construction of a new visual arts wing that integrates a rich cross-section of artistic disciplines with a gallery, studio and classroom spaces. Bottom: The project included six double-leaf acoustical smoke vents manufactured by The BILCO Company. The vents were equipped with electric motors that allow them to be opened and closed remotely for ventilation. They are activated upon the melting of a fusible link in case of a fire.



"The features that were included in the smoke vents were geared to student safety," said Michelle Oishi, lead architect on the project. "That was of paramount importance. The automated aspect was important due to the fact that we wanted very few things interfering with the rigging sets."

Ryan Cosmini of Pace Representatives, BILCO's sales representative in Braintree, MA procured the smoke vents for the contractor, J.S. Mortimer, Inc.

While ambitious in scope, the project delivered everything that the school required. "The entire community gathers there on a weekly basis, and it's very comfortable," said Steve McKeown, the school's project manager. "It provides a space where our community can gather, and that's something that is very important to our school."



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