

School Condenser Fans Noise Containment – Case Study

A school located very near residential properties was receiving complaints because of the fan noise emanating from the school's condensers located in a mechanical yard. The condensers were enclosed by a three sided wall of "acoustic block" sound barrier wall. The fourth wall of the enclosure was the school itself. It was determined that the condenser fan noise was reflecting off the school wall and flanking over the "acoustic block" sound barrier wall thereby disturbing the residents adjacent to the school.



The solution was to provide adequate access to service the condensing units, to not restrict airflow allowing the units to run properly, and to stop the fan noise from reflecting off the nearby structures. Sound curtains were used to enclose the top of each unit attached to a tubular steel frame. Vertical baffles or louvers were set above the condenser fans and sound curtain structure to create a large silencer. The result was total success on all criteria.