



## WMEP K-12 Public School, Minneapolis



SolarWall® system at WMEP K-12 downtown school



The black panels were integrated into a penthouse wall

### **Background**

The focus of the WMEP K-12 school was to utilize the diverse downtown environment of Minneapolis and all its resources to showcase advanced technologies in a school environment. This school is a multicultural learning center, serving nine Minnesota school districts, which constitute the West Metro Education Program (WMEP).

As with all schools, there is a high level of ventilation air that must be brought into the building every hour (ASHRAE recommends 15 cfm per student). In a climate like Minnesota where heating is required for at least 6-7 months of the year, heating this ventilation air represents a significant energy expenditure.

#### Solution

A SolarWall<sup>®</sup> system was selected because of its ability to deliver solar heated ventilation air, which maintains a high indoor air quality, while minimizing the heating costs. 2,115 ft2 (200 m²) of black panels were installed on a penthouse wall.

At the time of the installation in 1999, the project had a 6 year payback.

The SolarWall system not only reduces heating costs but also guarantees improved indoor air quality because the technology heats outdoor air, as opposed to re-circulated air. This helps maintain alertness in students and faculty. The SolarWall systems also acts as an educational tool because it is a featured part of the school's Solar Education Program.



Close-up view of the SolarWall system on the south wall

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