



## Government St. Louis County's Hibbing Courthouse Annex



*Above; close up of Hibbing Annex SolarWall® system*

*Left; Front view of courthouse; the SolarWall makes a striking architectural feature*

### Background

It was with both energy efficiency and sustainability in mind that plans were developed for the renovation of the county courthouse's 1950's era Hibbing Annex (located in St. Louis County, Minnesota). The St. Louis County's Property Management Department (SLC PMD) set out to create an office building with low operational costs while maintaining maximum operational energy efficiency. The Hibbing Courthouse Annex was designed to be a "Green Building" that used less energy, and was more efficient to operate. Formerly the Hibbing Mesaba Clinic, the Hibbing Annex was a positive re-use of an existing facility, made better by new technology, such as Conserval Engineering's SolarWall, the world leading solar air heating and ventilation system.

### Solution

Conserval Engineering, working in conjunction with Architectural Resources Inc (the SLC PMD's architects), developed a solution that incorporated 1,232 ft<sup>2</sup> (115m<sup>2</sup>) of SolarWall panels into the remodeled building. Used on two elevations, the bronze colored metal SolarWall panels preheat the air used to ventilate the office spaces, reducing both energy costs and CO<sub>2</sub> emissions.

When the building re-opened it boasted a long list of energy friendly improvements, with one of the highlight being the SolarWall ventilation and solar air heating system.

### Results

The Hibbing Annex SolarWall system will save approximately \$3,100 annually, at 2007 natural gas prices, and will provide a hedge against escalating energy prices. The system will also displace over 16 tons of CO<sub>2</sub> per year, and generate over 202MBtu (213GJ) annually.



*Photo of the Hibbing Annex rooftop ducting and SolarWall system*

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