



Weitz Center for Creativity at Carleton College

Blending energy efficiency into new performing arts center



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Manager of Campus Energy
and Sustainability

The old Northfield High School and Middle school building, originally constructed in 1910, sat vacant for years, just waiting for the right tenant. Carleton College bought it in 2005, renovating it into the Weitz Center for Creativity, to house visual arts, theater, dance, music and film studies.

Part of the renovation meant preserving much of the architectural appeal of the original building, while adding 30,000 square feet of new, modern space. A priority for the building was including energy efficient measures throughout to help them cut energy costs and save money for years to come.

Setting the standard

Very early in the process, the building’s energy efficiency measures were on track to achieve LEED Gold certification. Martha Larson, Manager of Campus Energy and Sustainability, says efficiency is always part of the plan.

“Our policy is to build to at least a LEED Silver standard,” Larson explains. “We already had a LEED Gold Residence Hall and our science building, which is currently under construction, is tracking toward Platinum, so we know the drill.”

They worked with Xcel Energy’s Energy Design Assistance program, to maximize energy saving opportunities that complemented the style and design of the space. The program provides computerized energy modeling to identify various efficiency measures available, potential costs, payback terms and rebates.

Many of the measures they chose were obvious, like using LED lighting throughout the building and energy efficient heating and cooling systems. They had worked with Xcel Energy for years, frequently taking advantage of rebate money to offset the cost of higher efficiency equipment.



Project highlights	
Project	Renovation of 1910 building with 30,000 square-foot addition
Estimated annual energy savings	73 kW – peak demand savings 365,756 kWh – electric savings 877 Dth – gas savings \$37,500 – annual savings amount
Energy Rebates	\$48,000 gas and electric

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The measures saving the Weitz Center the most include:

- A water cooled chiller, which is 12 percent better than code
- 96 percent efficient condensing gas boiler
- Chiller pump head pressure reset controls
- LED lighting system which is 20 percent lower than code
- Lighting controls throughout the building, including motion sensor controls, dual level fixtures and dimming daylighting controls

The combined measures are saving them 365,750 kWh and 877 dekatherms per year and earned them \$48,000 in Xcel Energy rebates. It’s estimated that they’ll save \$37,500 each year in energy costs.

New space, big dreams

The Weitz Center’s building exterior remains largely unchanged. On the inside, creative repurposing helps the space retain its historic character, showcasing the high ceilings, old woodwork and doors, and slate blackboards from the original middle school classrooms. And mixed throughout, are beautiful modern spaces allowing students places to work, study or just hang out.

“By definition as a creative space, it’s a really fun building to be in,” Larson says. “But mixing the old architecture with new energy saving technology makes it even cooler.”

Carleton College has a district energy system so Larson’s dream is to connect the Weitz Center to the central system which is being upgraded to include a geothermal heating system.

For now, she’s happy to enjoy the beautifully renovated space knowing it will be saving the school energy and money every day.



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