

Project Data

Construction: \$25,000,000
Size: 140,000 sf

MEPT: \$9,470,111 = \$67.64/sf
Year Bid: 2016
EUI: 44.4 kBtu/sf/yr
ECI: \$0.98 \$/sf/yr

Rebate: \$41,000
% Better Than Code: 26%
\$ Saved/year: \$46,324
\$ Saved / sf / year: \$0.35

Owner

Dubuque Community Schools
Bill Burkhart
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Team

Principal in Charge
Dwight Schumm, PE, LEED AP

Project Manager
Kelly Harrer, PE, LEED AP

Mechanical Engineer
Kelly Harrer, PE LEED AP
Brandon Vogel

Electrical Engineer
David Shelley
Jason Skinner

Architect
Straka Johnson Architects
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Reinventing a Classic Center for Education

Dubuque Senior was built in 1923 to establish permanent secondary education in Dubuque. Built primarily from stone quarried onsite, constant additions continued until 1966 with the completion of the third floor. Additions between 1988 and 2006 brought the structure to 288,580 square feet, functioning primarily on the building's original heating equipment.

HVAC improvements converted 70% of the building from steam boilers to conventional heat pumps and adds cooling for 80% of the building. Future planned phases for geothermal systems will replace remaining boilers and steam systems.

The building received new domestic water distribution, replacing existing galvanized piping in all areas of the building. Piping replacements provided opportunity to install upgraded fire protection systems, including addressable alarms and fire suppression systems for the first time. Security systems added cameras, access control, all-new intercoms, wireless clocks and improved data infrastructure while new and renovated lighting fixtures were upgraded to LED with digital automated controls.

The building's repurposed gym became a classroom complex for chemistry, including new fume hood exhaust, gas supply, island vents, acid waste and vent system. The relocated kitchen and cafeteria were reused for 2 Family Health and Consumer Sciences program classrooms. And a 4,000 sf addition to the SW corner brought biology and earth sciences teaching labs.

A 3-story open courtyard infill involved repurposing unused interior volume to 2-level cafeteria and library relocations. This space retained its exterior features as interior walls, bringing the schools material and architectural character into student's everyday activities within a brand-new social hub.

A revised entrance and new bus drop-off lane improved accessibility and included new energy-efficient site, parking and pedestrian lighting throughout.