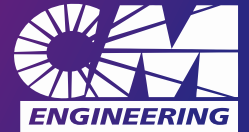




Fairview Elementary School

Normal, Illinois

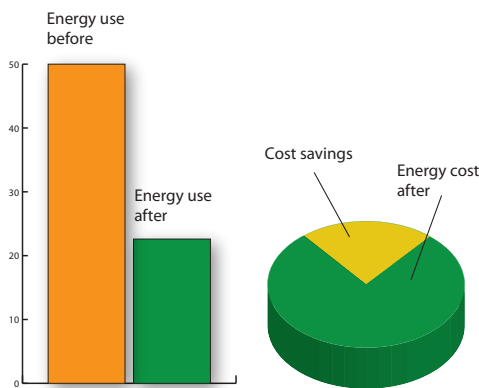
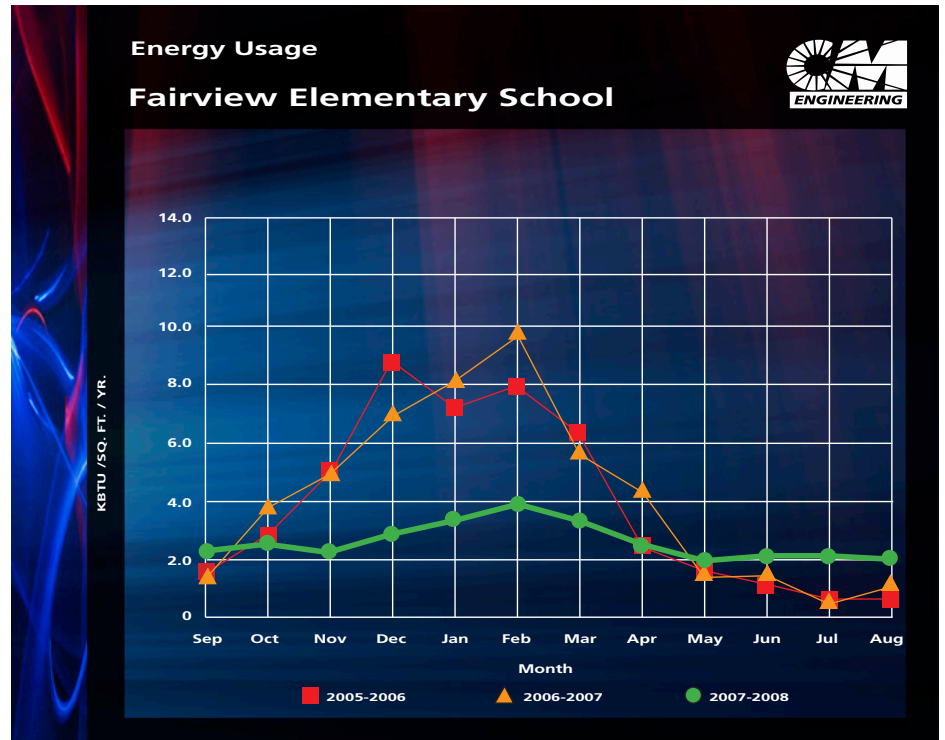


Fairview Elementary was retrofitted in the summer before the 2006-2007 school year. We replaced the heating system with our One-Pipe geothermal exchange system and added air conditioning and individual temperature controls to every space in the building. Energy consumption was slashed and comfort levels were dramatically improved. The installation cost was a low \$16.25 per square foot.

Our retrofitted system consumes about 45% of previous energy use. Fairview saves \$7,800 annually on its utility bills and has achieved an *Energy Star* rating of 98.

Retrofit of existing school

- Air conditioning added to classrooms
- Ground source geothermal exchange system
- One-pipe design
- 35,125 square feet
- 24 Classrooms
- Approximately 450 students
- Individual temperature controls in every space
- Retrofit cost \$16.25 / sq. ft.
- Energy use BEFORE retrofit: 68 KBTU / sq. ft.
- Energy use AFTER retrofit: 22.6 KBTU / sq. ft.
- Energy Star rating: 98



Energy use before retrofit: 50 kbtu per square foot
 Energy use after retrofit: 22.6 kbtu per square foot
 Energy cost after retrofit: 78% of previous cost
 Energy cost savings: 22%

Annual savings: \$7,800

The green tracing above shows measured energy consumption after installation of One-Pipe Geothermal exchange heating and cooling system. Red and orange show consumption for two years prior to retrofit. (Data source: Normal, Illinois Department of Education)

"Now students and teachers are comfortable through the entire school year, and our district is consuming less than half the energy we previously used."

Bruce Boswell
 Energy Manager
 McLean County Unit District 5
 Normal, Illinois