



Brigham Elementary School

Bloomington, Illinois

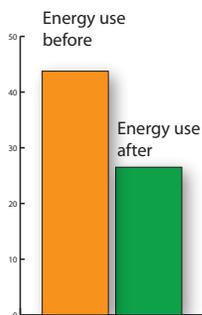
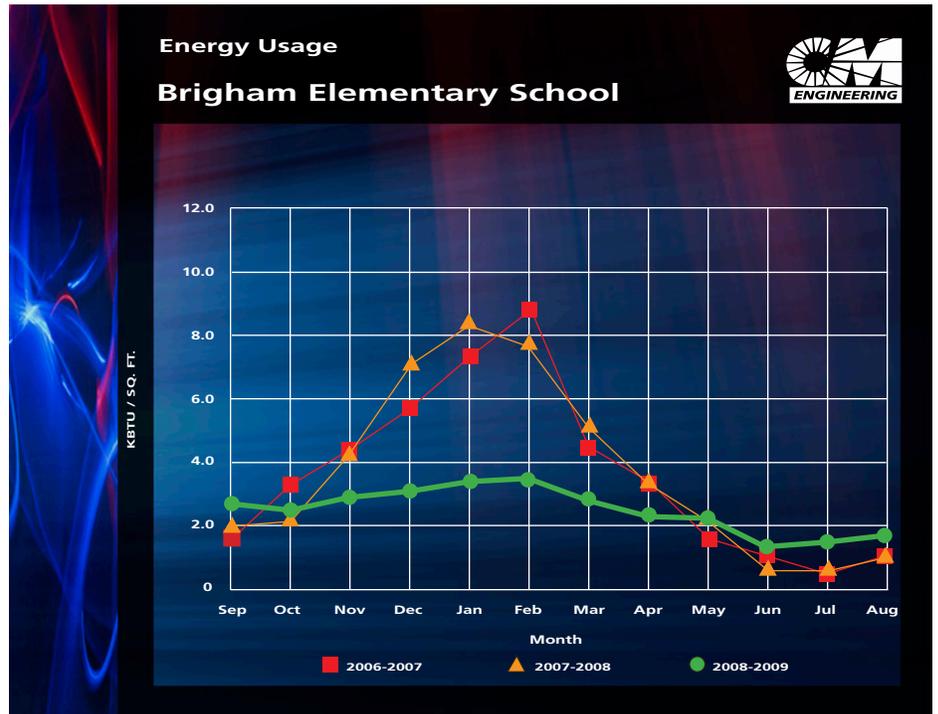


Brigham Elementary School, originally built in 1956, and with two additions since, was already an energy conscious school. Careful energy management and cooperation among the faculty, staff and students had earned the facility an Energy Star.

In the summer of 2008, we installed our One-Pipe geothermal exchange system, adding air conditioning and individual temperature controls throughout the building. As a result, a good performer was made even better. Brigham consumes about 40% less energy after the retrofit, and has now earned an Energy Star rating of 98.

Retrofit of existing school

- Air conditioning added to classrooms
- Ground source geothermal exchange system
- One-pipe design
- 55,157 square feet
- Approximately 385 students
- Individual temperature controls in every space
- Retrofit cost \$17.24 / sq. ft.
- Energy use BEFORE retrofit: 43.75 KBTU / sq. ft. / yr.
- Energy use AFTER retrofit: 26.51 KBTU / sq. ft. / yr.
- Energy Star rating: 98



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: McLean County, Illinois Unit District 5)

“ This school exemplifies energy savings that can occur in an older building. The hard work of staff resulted in careful awareness of unneeded energy use and adjustments for nights and weekends. Further reduction came the with addition of geo-exchange heating and cooling in 2008. ”

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Bruce Boswell
Energy Manager
McLean County Unit District 5