Project Reference

Beechwood Independent Schools

54 Beechwood Rd
Fort Mitchell, KY 41017

Project Type: Energy Savings Project

Impact: Better performing systems and savings in excess of $75,000 per year.

Methods Employed:

$747,579 Energy Saving Project to upgrade aging facility infrastructure.

Background:

The school board was dealing with aging facilities and increasing utility costs. The school district has one main school building for the High School, Middle School and Elementary School. This building was added onto many times over the years and some sections were nearly 100 years old. The problem was that each addition has its own set of mechanical equipment. Often, architects and engineers do not expend the extra ef-fort to determine if over-sized equipment from one portion of a building might be able to heat or cool an-other section. Some sections of the school building were not cooled which was a goal of the school district.

Solution:

Perfection installed efficient lighting systems and central controls. We also connected several of the boilers together allowing for the school to actually shut off certain boilers that were operating before, therefore, saving energy and lowering utility costs. Perfection installed air conditioning for the Elementary wing and parts of the High School as a capital project. This was done in conjunction with the performance contract. The ceilings in the Elementary wing were also insulated in order to reduce the total tonnage installed.

The projected annual savings for this project is $75,000. The annual emission reductions are 975,832 lbs of carbon dioxide, 2,834 lbs. of Nitrogen Oxide, 5,123 lbs. of Sulfur Dioxide, 81 lbs. of Particulates and 6,104 mg of Mercury. The projected annual gas savings is 14,018 Therms. The projected annual electric savings is 359,800 kWh.

The energy guarantee was mutually determined to be unnecessary after the performance was verified for the first three years. The project was so successful that the Beechwood School Board invited us back to design and install the HVAC System in the new High School Science Wing expansion.

- Installed efficient lighting systems and central controls
- Installed Air Conditioning in the Elementary Wing