



Energy Savings Delivered

Belmont Hill School Project Profile

At a Glance:

Project Type: Systems Integration
Vertical Market: Education/Private School
Location: Belmont, Massachusetts
Size: Multiple Buildings
Products: Plexus, Schneider Electric
Installation: 2003-2006

Customer Benefits:

- Energy efficiency
- User-friendly system interface
- Improved indoor air quality and temperature control
- Centralized monitoring and control
- Ability to add new equipment in the future



Project Overview

The Belmont Hill School is a private, college-preparatory school for boys located in Belmont, Massachusetts. Belmont Hill enrolls over 400 students in grades 7 through 12.

The school is situated on a 28 acre campus in Belmont and offers facilities that support their programs in academics, athletics, and the arts, including an award-winning athletic center, a music building, a recently renovated academic building and other classrooms and residence halls.

Belmont Hill had a wide variety of control systems in use at various buildings. When FMC Technologies first stated working with Belmont Hill, there was some Direct Digital Control (DDC), however, each building “stood alone” and there was no common operator interface.

The school’s primary need was to provide a cohesive control system with remote monitoring stations that had a common “look and feel” for each building. Other issues for the school were: re-commissioning the existing local controls, improving the indoor learning environment for the students, lowering the maintenance costs of the existing HVAC equipment and saving energy dollars.

The Solution

FMC Technologies recommended the installation of a LonWorks-based open-protocol control and monitoring system with a web-enabled graphical user interface workstation for the system operator(s). The LonWorks system communicates directly with the existing LonWorks products and uses “gateways” to communicate with other “legacy” devices. Currently seven buildings are on the LonWorks network and additional upgrades are planned for the future.

The Bottom Line

Belmont Hill met its objectives and now has centralized monitoring and control of the various campus buildings with a user friendly system interface. By implementing a LonWorks solution, the school has installed a powerful yet scalable system where future upgrades can come from a variety of manufacturers and seamlessly integrate with existing control equipment. Future upgrades do not need to be from a single manufacturer that would limit their scalability options.

Belmont Hill now enjoys a building automation system with central management, simpler operation, faster response time to any issues that arise and significant energy savings. In addition, the learning environment has improved for its students with better air quality and temperature control.