

# CORL STREET ELEMENTARY SCHOOL

STATE COLLEGE, PENNSYLVANIA

EDUCATION

## OVERVIEW

*Corl Street Elementary School was designed to meet the State College Area School District goal of providing collaborative education through the incorporation of technology, flexible learning areas, and sustainability. The new design modernized the facility and expanded the building to accommodate approximately 400 students. Abundant windows and daylight, a healthy ventilation system, and the inclusion of walking and biking paths make Corl Street Elementary an ideal place to learn.*

## PROJECT DETAILS

Reliable Controls Authorized Dealer Nexgen Automation successfully installed a MACH-System™ during the construction of this LEED Platinum-certified facility.

An instance of RC-WebView operates on a central server in the district office and is connected through Ethernet to MACH-System devices distributed throughout the school that controls mechanical equipment and regulates the temperature, humidity, and CO<sub>2</sub> levels in each classroom. Building operation data is delivered to RC-Archive and managed in RC-Reporter, allowing operators to easily monitor energy consumption. Nexgen used RC-Studio to configure the entire building automation system.

Individual heat pumps are installed in each classroom, with dedicated energy recovery units that maximize CO<sub>2</sub> control and minimize energy consumption. A central plant maintains water at optimal temperatures.

Rooftop solar arrays supply 20 percent of the school's electricity—just one of several factors that contributed to the building's LEED Platinum-certification from the U.S. Green Building Council. The building also conserves water with low-flow toilets, bathroom sinks, and kitchen equipment, along with sensors that automatically shut off fixtures. The school remained functional during construction and renovations.

"Nexgen was integral in the construction of three elementary schools for the State College Area School District. These projects involved new construction and renovation that were occurring simultaneously. Nexgen staff were very responsive to the issues that arose over the course of the three projects. All projects opened on time and Nexgen's staff was instrumental in meeting their tight schedules."

The State College Area School District Facilities department depends on the Reliable Controls MACH-System to facilitate a healthy learning environment for its young students. Reliable Controls and Nexgen Automation are pleased to have participated in this project.

To learn more about projects using Reliable Controls visit  
[www.reliablecontrols.com/projects/overview](http://www.reliablecontrols.com/projects/overview)



### PROJECT TYPE

**New construction and retrofit**

### INSTALLATION TYPE

**Boiler, CO<sub>2</sub> monitoring, heat pump, HVAC, power, natural gas metering, water metering**

### TOTAL AREA

**64,086 ft<sup>2</sup> (5,953 m<sup>2</sup>)**

### NETWORK

**EIA-485, Ethernet**

### PROTOCOL

**BACnet, Modbus**

### BACNET

**2 Lochinvar boilers  
 2 Addison rooftop heat pumps**

### EQUIPMENT INSTALLED

**6 MACH-Pro2™ controllers  
 47 MACH-ProAir™ controllers  
 3 MACH-ProCom™ controllers  
 5 MACH-ProPoint™ expansion modules  
 8 MACH-ProZone™ controllers  
 9 SMART-Space™ controllers  
 RC-Archive® software  
 RC-Reporter® software  
 RC-Studio® software  
 RC-WebView® software**

### TOTAL SYSTEM POINTS

**1,028**

**RELIABLE CONTROLS AUTHORIZED DEALER**  
**Nexgen Automation Inc.**

