

RISE STUDENT HOUSING FACILITY

STATE COLLEGE, PENNSYLVANIA, UNITED STATES

INTRODUCTION

RISE at State College is the premier student apartment building for hybrid learning at [Penn State University](#). This downtown facility offers studio and one-, two-, three-, four-, and five-bedroom apartments with spacious, pet-friendly floor plans and excellent amenities, including a fitness center and game room.

PROJECT DETAILS

Authorized Dealer [Nexgen Automation](#) installed a Reliable Controls building automation system during construction of this 12-story building LEED Silver-certified in downtown State College designed to house 570 students in apartment-style living.

Networked hardware for this project include MACH-ProSys controllers with smoke control and MACH-Pro2 controllers expanded with MACH-ProPoint modules. A MACH-ProWebCom controller provides the user interface for the control system.

Mechanical equipment includes a water-source heat pump loop with variable speed pumps, a cooling tower, and three boilers. The system maintains the temperature of the loop to maximize efficiency. Supply air is provided by six energy-recovery units integrated with the building automation system. The underground parking garage is controlled with variable speed exhaust fans that detect dangerous levels of carbon monoxide.

The smoke-control system was a last-minute addition to the scope of work. Nexgen Automation implemented a complex smoke evacuation sequence that achieves proper pressurization and smoke evacuation for the building in the event of an emergency. All smoke control equipment, panels, controllers, and wiring had to be procured and installed on a tight schedule. Nexgen wrote, tested, and validated the programming for exhaust fans, smoke dampers, and an annunciator panel. Nexgen's team of professional delivered a complete, UUKL-verified system that ensures a healthy environment for students and residents.

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MARKET SEGMENT

Residential

PROJECT TYPE

New Construction

INSTALLATION TYPE

HVAC

TOTAL AREA

27,884 m² (300,140 ft²)

PROTOCOL

BACnet

TOTAL SYSTEM OBJECTS

224

EQUIPMENT INSTALLED

2 MACH-Pro2™ controllers

1 MACH-ProPoint™ Input expansion modules

18 MACH-ProPoint Input/Output expansion modules

1 MACH-ProWebCom™ controller

6 MACH-ProSys™ controllers with smoke control

2 SMART-Sensor™ devices

CERTIFICATIONS

LEED Silver

RELIABLE CONTROLS AUTHORIZED DEALER

Nexgen

COMFORT. EFFICIENCY. INNOVATION.