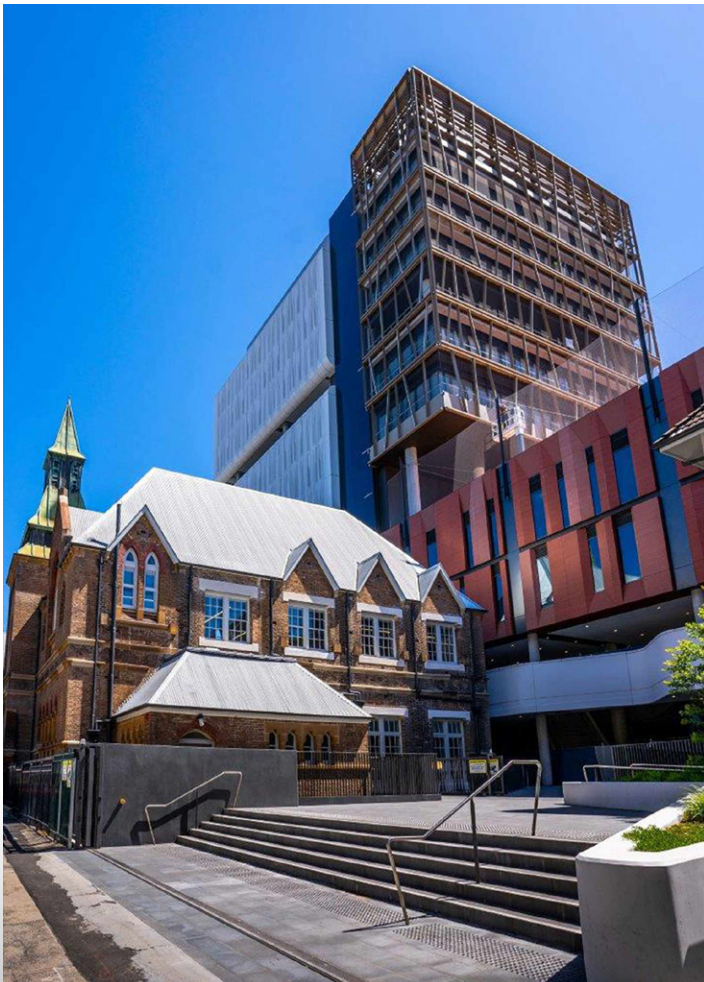


# INNER SYDNEY HIGH SCHOOL

SYDNEY, NEW SOUTH WALES, AUSTRALIA

## INTRODUCTION

Since 2019 the New South Wales government has opened more than 100 new and upgraded schools through its historic school building program, a AUD\$400 million investment that has benefited tens of thousands of students and supported communities throughout the province. One of these projects was a new high school in the center of Sydney that combines unique heritage buildings with a 14-storey high-rise tower that accommodates 1,200 learners. Built to be energy efficient and ecologically sustainable, [Inner Sydney High School](#) is accessible, flexible, and technologically equipped to meet the demands of an evolving curriculum, with spaces that are engaging and supportive for students and teachers. The school meets a diverse range of learner interests, with five STEM-focused floors for science, technology, engineering, and mathematics; multiple sport and recreational facilities, and facilities for music, food technology, and visual arts.



**MARKET SEGMENT**  
Education

**PROJECT TYPE**  
New construction and retrofit

**INSTALLATION TYPE**  
HVAC

**TOTAL AREA**  
5,636 m<sup>2</sup> (60,665 ft<sup>2</sup>)

**PROTOCOL**  
BACnet, Modbus

**INSTALLED EQUIPMENT**  
133 MACH-ProAir™ controllers  
8 MACH-ProCom™ controllers  
8 MACH-ProSys™ controllers  
5 MACH-Zone™ controllers  
98 SMART-Sensor™ devices  
RC-Archive® software  
RC-Reporter® software  
RC-Studio® software  
RC-WebView® software

**INTEGRATED EQUIPMENT**  
2 Daikin chillers via BACnet MS/TP, 36  
Schneider PM series power meters,  
11 ABB variable speed drives via  
BACnet MS/TP

**TOTAL SYSTEM OBJECTS**  
1,472

**RELIABLE CONTROLS**  
AUTHORIZED DEALER

**RYCON**  
Electrical Services

reliablecontrols.com

# INNER SYDNEY HIGH SCHOOL

SYDNEY, NEW SOUTH WALES, AUSTRALIA

## PROJECT DETAILS

Authorized Dealer [Rycon Electrical Services](#) installed a Reliable Controls building automation system at Inner Sydney High School that controls HVAC equipment and provides electrical energy monitoring. A significant achievement of the project was providing low-cost fan-coil unit control, said David Connolly, director of Rycon. One hundred and thirty-three MACH-ProAir controllers throughout the facility each include an airflow sensor and onboard damper motor, eliminating the need for separate pressure transducers and outside air-damper actuators. The MACH-ProAir is a fully programmable BACnet Building Controller with flexible input and output options, engineered to be suitable for a wide variety of variable air volume applications.

Rycon took control of the school's mechanical equipment with eight MACH-ProCom and eight MACH-ProSys controllers and integrated third-party power meters using Modbus RTU. The MACH-ProCom and MACH-ProSys are fully programmable BACnet Building Controllers with extensive networking capabilities that achieve an optimum balance between form and function. Rycon also installed five MACH-ProZone controllers to control small to midsize rooftop and heat-pump units.

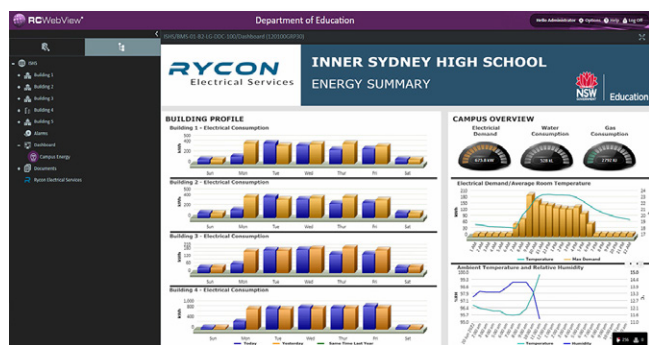
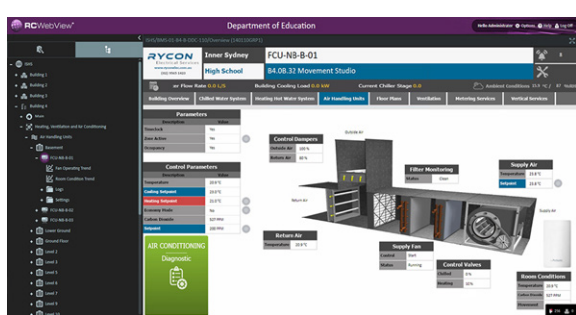
Ninety-eight programmable SMART-Sensor devices around the school deliver a modern communicating-sensor solution that allows building managers to connect with up to 10 configurable parameters related to space, including temperature.

Rycon used RC-Studio software to integrate the school's mechanical equipment and optimize control strategies for comfort and energy efficiency. An easy-to-learn, easy-to-use BACnet Advanced Operator Workstation, RC-Studio provides real-time fault detection and diagnostics, so facility managers can resolve issues before they become a problem. With RC-Archive software, stakeholders fully own and control their data and benefit from a robust, dependable record of performance, and RC-Reporter helps them extract intelligence from that data to discover actionable insights.

Today RC-WebView software, a browser-based building management solution that combines the power of enterprise tools with a simple interface, provides scalable visibility and system control at a glance.

"Rycon are proud to have successfully delivered the Inner Sydney High School's building automation system powered by Reliable Controls," said David. "This was our first multistorey building and a real testament to our project delivery team."

School principal Robyn Matthews sees the school's physical environment as a unique opportunity to drive its narrative on education and learning in a future-focused way that encourages students to embrace lifelong learning. Reliable Controls and Rycon were pleased to provide Inner Sydney High School with a sustainable, efficient building automation system that will contribute to this goal for years to come.



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