

LEMONWOOD GROVE SCHOOL

ROLLESTON, NEW ZEALAND

INTRODUCTION

Lemonwood Grove School opened in 2017 with a foundation for learning that balances the academic and social/emotional needs of every learner. The school was the first in New Zealand to be constructed with factory-made precut panels, using digital technology to translate building designs into staged production outputs. The panels included every component, down to the holes for electrical sockets ready to be delivered and installed onsite. Lemonwood Grove caters to Year 1–8 students across 17 teaching spaces, including a library, outdoor teaching areas, an adventure play area, and technology “maker spaces.”

PROJECT DETAILS

Reliable Controls Authorized Dealer [IES Group](#) participated in the development stages of the new school building in 2016 and three years later returned to retrofit a variable refrigerant flow system with Reliable Controls devices.

The network architecture for the retrofit project was comprised of MACH-ProSys, MACH-ProWebSys, MACH-ProZone, and MACH-Pro2 controllers connected through the building management system, accessed via a graphical user interface. Building HVAC equipment included three fresh air-handling units with heating coils, CO2 sensors, 13 underfloor heating manifolds, a heating plant, variable refrigerant flow cooling, and extraction fans. A control panel was located in each learning hub.

With a capacity for 400 students, Lemonwood Grove School focuses on student engagement, motivation, and enjoyment. Reliable Controls and IES Group are pleased to help make the school a welcoming and comfortable space for learners.

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MARKET SEGMENT

Education

PROJECT TYPE

Retrofit

INSTALLATION TYPE

HVAC

TOTAL AREA

3,500 m² (37,674 ft²)

PROTOCOL

BACnet, SMTP, Modbus

TOTAL SYSTEM POINTS

254

EQUIPMENT INSTALLED

4 MACH-Pro2™ controllers

1 MACH-ProSys™ controller

1 MACH-ProWebSys™ controller

2 MACH-ProZone™ controllers

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