Catalina Bay Apartments

Project Profile

Authorized Dealer

CALLANDER CONTROL LTD

Market segment
Residential

Location
Auckland, New Zealand

Total area
16,000 m² (172,223 ft²)

Project type
New Construction

Protocol
BACnet, Modbus

Installation type
HVAC

Catalina Bay Apartments is a landmark residential development that exemplifies sustainable building, with 73 apartments, town houses, and penthouses in two towers that integrate high-quality materials with climate-resilient design. The development is sited on 1.8 hectares of Auckland waterfront that forms Catalina Bay precinct, a redeveloped former air-force base that housed seaplanes until 1967.
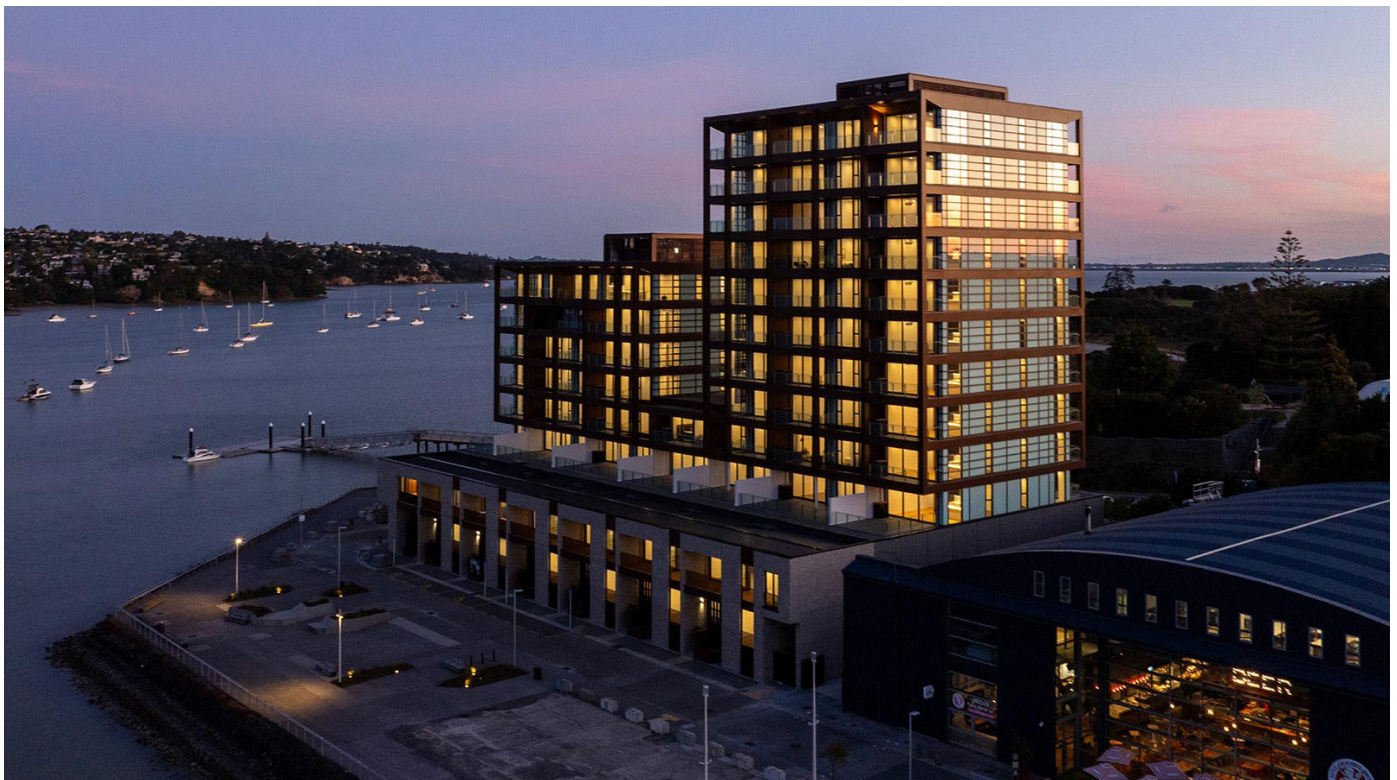

The design and build team incorporated emergency flood systems that anticipate 150 years of climate change and projected rises in sea level. More than 85 percent of unused building materials were repurposed or recycled, minimizing waste throughout construction. These impressive features, along with a sustainable building automation system from Reliable Controls, helped the apartments achieve a Homestar 7 rating from the New Zealand Green Building Council.

Total system objects
1,300

Integrated Equipment
Danfoss drives, Siemens Climatix, ADFWeb BACnet gateway

Certifications
Homestar 7

Installed equipment
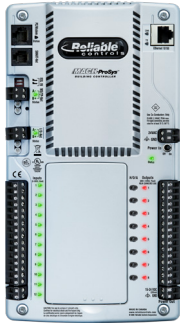
7 MACH-ProSys™
controllers

69 MACH-ProZone™
controllers

Installed software

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Authorized Dealer Callander Control installed the Reliable Controls automation solution during construction of Catalina Bay Apartments to monitor and control:

- Fresh air supply
- Car park ventilation
- Water-meter billing and leak detection
- Apartment ventilation
- Stairwell pressurization
- Ancillary air systems for the building management and maintenance rooms
- Fault monitoring

Today facility managers access the automation system using RC-WebView, time-saving browser-based building management software that combines the power and accountability of enterprise tools with a simple interface. RC-WebView provides scalable visibility and system control at a glance.

RC-Archive delivers a robust, dependable record of building performance with continuous downloading of data logs to a SQL database. With RC-Archive, stakeholders fully own and control their data.

Callander Control installed seven MACH-ProSys devices to control the building's mechanical equipment, integrating third-party BACnet water meters and air-handling unit controllers with the Reliable Controls system for setpoint, fan speed, and scheduling. With extensive network routing ability to multiple open protocols and highly scalable inputs and outputs, the MACH-ProSys BACnet Building Controller is the ideal choice for large rooftop equipment, large mechanical rooms, and complex integrated systems. Sixty-nine MACH-ProZone devices control fresh air and exhaust systems via ventilation pushbuttons in each apartment as well as bathroom light and kitchen range hood monitoring. The Reliable Controls system also provides an interface for booster pump and sump hydraulics and elevators.

More than 2,200 people worked on the site during the 28-month build. Kudos to project manager Michael McDonald for using proactive planning and problem-solving to guide the Callander Control team, including to meet the challenge of programming smoke controllers with the fire fan control panel. He was supported by site foreperson Ryan Murdoch, who ensured installers worked efficiently during the wiring and testing process.

Reliable Controls is proud to be part of the transition of this historic site into a vibrant community.