Case study

The Pole House

Location	Fairhaven, Victoria, Australia
Philips Lighting	Philips Dynalite Control System

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Background

When new owners, Kathi and Ray Adams, decided to update the iconic 'Pole House' in Fairhaven, on Victoria's famous Surf Coast, they appointed Melbourne-based F2 Architecture to design a sympathetic renovation for the existing structure, as well as designing a new two-storey, three-bedroomed 'Main House'. Their design vision aimed to exploit modern steel and glass technologies to enhance the open-plan holiday-living ambience and to capitalize on the views down the coast.

Home automation was included for convenience and luxury, while enabling the lighting, audio-visual (AV), heating/cooling and security services to be integrated into a user-friendly operating system. Advanced Lifestyle Solutions was engaged to deliver a Dynalite control platform to manage the lights and blinds, while Carlton Audio Visual were responsible for programming of the Dynalite system and its integration into the Control 4 supervisory system.

The challenge

The client wanted an energy-efficient lighting control solution that has the ability to integrate with other systems. Furthermore, to make the property perfect for rental, it was important that the automation system chosen features simple intuitive controls, as well as the ability to remotely operate the lighting, HVAC and security systems.

One significant challenge was the inconsistency of the mains power in this area. LED lighting was desirable for its energy-saving potential, but unstable mains power is often a serious impediment to achieving flicker-free LED dimming. Another important requirement was for a system that works seamlessly with blind controls to facilitate the partitioning of the principal living area in the Main House.

The solution

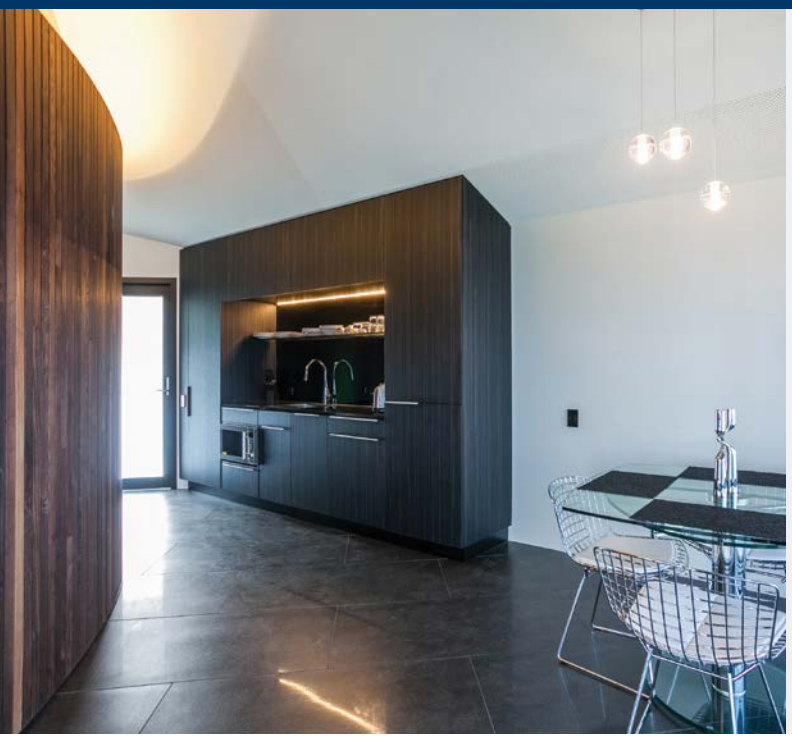
The Dynalite control system proved an ideal option, as this delivers an extremely stable platform to deliver LED dimming in these variable conditions. The project utilizes dimmable LED lighting throughout both properties, offering incredible scope for the creation of different lighting scenes, which can be easily programmed or updated at any point in time using the Dynalite EnvisionProject software.

F2 Architecture and Carlton Audio Visual jointly designed a system in the Main House whereby a partition blind emerges from the wall between the lounge and the kitchen/dining area to create the Theater room. At the single press of a button, window blinds activate in conjunction with the partition, blocking out external light and improving acoustics to deliver a full cinema experience.

To enhance energy efficiency, Dynalite universal sensors were installed in the bathrooms and laundry to automatically turn off lights when these areas are unoccupied. Multipurpose controllers were used throughout the project, with standard/blind relay cards facilitating control for fans/blinds, and trailing-edge dimming cards to achieve LED dimming.

Currently, most of the dimming scenes have been established for the main living area, although there is an additional night scene and panic mode operable from the master bedroom. The night scene turns off all the lights and ensures the security systems are activated, while the panic scene turns on key lights and provides an automated alert to an offsite monitoring station.

The automation solution supports the use of Control 4 remote-control units within the house, and also enables lighting, heating/cooling, security/access and the AV systems to be adjusted from off-site locations. This facility is particularly useful to prepare the properties for rental and to ensure energy is not wasted, once guests have left.



Fast facts

Project

The Pole House

Location

Fairhaven, Victoria, Australia

Architects

F2 Architecture

Dynalite supplier

Advanced Lifestyle Solutions

System Integrator

Carlton Audio Visual

Products

DDMC802 Multipurpose controllers, DDTM102 Trailing Edge Modules; DDRC1220FR-GL Relay Controllers; DyNet communications serial bus network; Antumbra Touch user interfaces; DUS804C Multifunction sensors; EnvisionProject commissioning and management software

"The Pole House takes advantage of advanced building materials and technology to create an open-plan area that optimizes the space to perfectly frame the stunning views beyond. The property effectively transcends its occupants from the hustle of everyday life and re-engages them with the beauty of the natural surroundings."

Kathi Adams, Owner

Benefits

The Pole House features long glass walls and an uncluttered ceiling to draw the eye through the studio space to the breathtaking coastal panorama beyond. LED strips were incorporated into the perimeter edge of the central ensuite pod to reflect light off the bare ceiling, providing atmospheric lighting throughout the area. The one exception to this 'clean-ceiling' approach is an arresting LED Bocci pendant light – comprising three glass orbs – suspended above the dining table.

To achieve the Zen-like austerity prevalent throughout both the Main House and the Pole House, a great deal of complicated design work went into concealing cabling beneath the polished concrete floors. Both properties appear simple and stylish, while the inclusion of sophisticated automation solutions provide an added sense of luxury that perfectly complements the overall design ethos.

The finished project has exceeded the vision of the proud owners. The Dynalite control solution allows seamless integration of the lighting, blinds, HVAC, AV and security systems, in a way that is simple to operate. Dynalite has enabled dimmable LEDs to be used in the project, which enhances both the energy efficiency and the ambience. The result is a sense of monumental space and quality of light in both properties, and an unparalleled open-plan ambience in the Pole House that optimizes the layout to perfectly frame the stunning shoreline scenery.

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Photography by Simon Lakey

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