

SUNSHINE COAST UNIVERSITY HOSPITAL QUIETER WITH SOUNDLAG

BACKGROUND

The SCUH, Queensland's first public hospital developed under a unique public/private partnership, officially opened in April 2017 with further expansion due for completion in 2021.

As a new, leading tertiary teaching university hospital in the region, the complex is scaled for growth as a central hub for research, healthcare and community professionals. Its research and clinical training operations are organically integrated into the hospital infrastructure with new transport links nearby.

In planning for the future, the development area is located in a natural setting by melaleuca forests with a coastal fringe near the Mooloolah river. Proper attention has been given to the knowledge that patients traditionally recover faster near nature and in serenity than those in a typical high density hospital environment. With a focus on integration of nature and social healing, a central open courtyard exists between the two principle blocks plus many patient rooms offer a view to the courtyard, the ocean, or towards hinterland to the west. A colourful facade of bold panels along the exterior reveal patient centric design within. As health care needs change, emphasis on positive patient experience and quiet recovery rooms is critical.

Negative noise levels occur from diagnostic devices and electromedical equipment and with spatial restrictions, noise breakout from waste water pipes, hydraulic services and HVAC ducting required proper mitigation.



Promoting sleep and good quality rest within the hospital environment is very important. Ensuring a quiet environment helps recovery.

THE SOLUTION

Noisy ducting and waste water pipes near wards and other noise critical areas meant a requirement to install 23,000m of pipe-lagging across complex pipe configurations and different sizes ranging from 40-300 mm.

The job was supplied and installed by one of Pyrotek's leading installation experts, Ecolife Solutions.

For hospital applications where high acoustic performance is required in addition to hygiene standards, this locally produced, high quality, AAAC 6 Star Rated pipe lagging complies fully to Australian building standards. The fire resistant cover, low VOC properties and long-standing reputation in the market meant the solution was ideal. Superior noise control provided comfort and privacy by reducing noise transmission in noisy, frequently used wash areas and bathrooms. Soundlag is easily fitted around obstructions, highlighting its flexibility around difficult and tight access areas.

Sunshine Coast University Hospital is one of Australia's largest public health infrastructure projects. It was designed with a focus on recovery and positive patient experience.



RESULTS

With installation complete - Soundlag can reduce sound breakout from waste water pipes by upto 25dB. This will ensure comfort, privacy, and work towards maintaining comfortable noise levels for improved patient recovery.

Levels and sources of sound were suitably addressed—protecting and improving several room types (ICU, emergency, patient recovery and in-patient). Soundlag and other Pyrotek products are now increasingly being specified for several other hospital projects nationally.

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High frequency hand washing (and many sinks and drains) means adequate noise mitigation is required throughout wards.

