Improving Acoustics for a Regional Cultural Centre



A highly aesthetic solution to reduce reverberation noise.

"Your installation of the acoustic ceiling tiles looks great – it has been an excellent outcome." - Lockyer Shire Council team member

The challenge

The Laidley Cultural Centre, part of the Lockyer Shire Council, is a large space designed to welcome and host a variety of functions, from weddings to indoor markets. Yet there was a problem.

The Cultural Centre had received complaints from patrons, because the acoustics in the large open space were not conducive to either performances or large gatherings of people.

In fact, the room was so reverberant that guests were unable to hear each other properly, let alone being able to appreciate music, performances or speeches within the facility. The Council contacted AcousTech for advice.

Main noise concerns

AcousTech visited site and undertook a full assessment and noise testing, including reverberation time tests. A report to council stipulated the measures that should be undertaken to rectify the acoustic challenges and ensure the space was able to be used as intended.

AcousTech's recommendations were to:

- 1. Replace the existing non-acoustic ceiling tiles with an acoustic ceiling, and
- 2. Replace the existing thin curtains with acoustic curtains.

The Council put the project out to tender, and Avenue Interior Systems were engaged to install the solution. Following discussions with the council regarding the requirements, the ultimate solution was changed from the engineer's original recommendations to one which, while just as acoustically effective, was more cost-effective and easier to implement.

The Avenue Solution

Avenue Interior Systems' solution called for $450m^2$ of 50mm thick <u>Calando Panels</u>, installed over the existing ceiling. The installation was discreet and unobtrusive, with the white panels blending into the existing aesthetics. This meant the panels dramatically improved the room's acoustics, without taking away from the look of the interior.



Avenue's project consultants visited the site throughout the process, working closely with the Cultural Centre team to ensure the installation was completed in accordance with all the Council's requirements and expectations.

Access to the site was limited, which meant the Avenue team needed to think outside the box for installation to ensure the project was completed in one visit.

Aesthetics were important, as was ensuring there was no damage to the floors. Further, the panels installation had to be timed to occur just before the acoustic curtains were installed.

Results Achieved by Avenue

The Calando Panels installation has reduced the room's reverberation time significantly. Previously the RT60 was 3.4 seconds, and following the installation of Calando Panels the RT60 has decreased to just 1.1 seconds, which is in the recommended range for this kind of space. This reduction in reverberation has meant the space is much more comfortable for all users, and the community can now enjoy their facility as it was intended.

The Lockyer Shire Council team and patrons of the Laidley Cultural Centre are extremely happy with the results, telling us, "Your installation of the acoustic ceiling tiles look great", and that it has been an "excellent outcome".

For more information about noise control solutions for your function room, contact Avenue Interior Systems on 1300 827 177.

We look forward to Designing Your Silence.

