

RVT best practice guides:

Noise control



Are you implementing effective noise control measures?

Safe Work Australia states that between 28–32% of the Australian workforce is likely to work in an environment where they are exposed to loud noise at work. But with 4,700 claims for noise-induced hearing loss being made every year, it calls in to question whether these workers are being properly protected from hazardous noise.

Solutions are available and this flyer will guide you through the principles of effective noise control and the various options that are available to you.



What does the law say?

Under the Local Nuisance and Litter Control Act (2016) of South Australia, construction noise can be classed as a local nuisance.

The law can vary from state to state, but New South Wales, for example, abides by the The Protection of the Environment Operations Act 1997 (POEO). This allows local councils to set decibel ranges for residential, commercial and industrial zones. Local councils, therefore, have the power to set restrictions and issue notices to people and businesses where necessary, to prevent noise pollution.

Why is noise considered such a big problem?

Noise has a huge impact on an area, causing stress to surrounding residents and potentially even damaging hearing. In 2011, the World Health Organisation quantified the burden of disease due to environmental noise exposure. Health end points included cardiovascular disease, cognitive impairment, sleep disturbance, tinnitus and annoyance.

In addition to the serious effect on human health, noise pollution can also cause damage to wildlife by disturbing breeding grounds and habitats.





Principles of effective noise control

Each site is different and requires a different approach but when it comes to the principles of noise containment, the same logic applies to all projects, whether they are construction-based, roadworks-based or otherwise.

Perimeter acoustic barriers often provide a cost-effective solution to controlling general background site noise, such as workmen shouting or vehicles being driven. However, for more intensive activities, such as breaking or cutting, acoustic enclosures are far more effective and contain the noise at source.

The diagrams below demonstrate how effective acoustic enclosures are when compared to acoustic perimeter barriers.

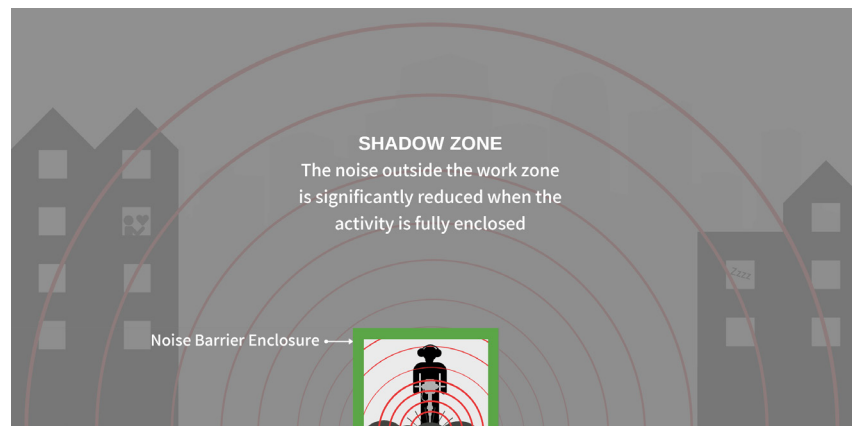


Diagram 1: Perimeter acoustic barriers

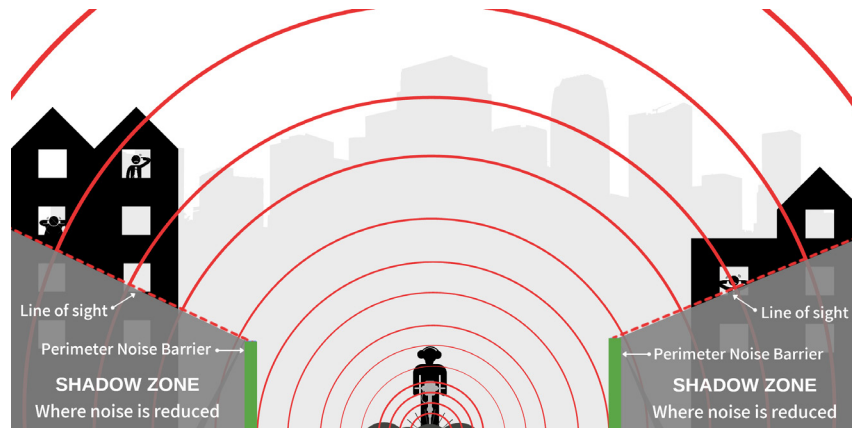


Diagram 2: Acoustic enclosure

It is important to remember that perimeter noise barriers and acoustic enclosures aren't mutually exclusive. A combination of the two can often be the most effective noise control solution.

By making use of the most appropriate enclosure and perimeter barriers for your project, you not only protect the hearing of those living and working nearby, but you can also drastically reduce your chances of being investigated.

What solutions are available?

RVT offers a broad range of quilts, curtains and enclosures to ensure effective noise control on site:



Soundex® Cutting Enclosure

This enclosure has capacity for cutting long lengths of wood and creates a standalone cutting zone on site. It comes with a chop saw deck and is quickly erected.

Soundex® Breaker Shroud

This extremely robust 2.5 x 3.0m industrial quality breaker shroud incorporates acoustic walls and roof. The shroud also doubles up as a chip guard and is easily moved around.



Soundex® Generator Enclosure

This enclosure has been specifically designed to attenuate the low-frequency noise associated with generators and includes an access door for maintenance and refuelling.

Soundex® Generator Exhaust Attenuator

Manufactured from high-grade materials, this high-performance unit provides effective noise attenuation for generator exhausts and can withstand extreme temperatures.



Soundex® Maintenance Enclosure

The Soundex Maintenance Enclosure is ideally suited for shopping aisles and other restricted spaces – indoors or outdoors – enabling maintenance work with minimal disruption.

Soundex® Construction Enclosure

This 5.7m extended-length enclosure boasts great versatility on site, and is commonly used within construction, rail, civil engineering and retail maintenance.



Soundex® Multi-Purpose Enclosure

This extremely robust 2.5m x 2.5m enclosure with acoustic walls and roof enjoys consistent success within the construction, rail, civil engineering and retail maintenance industries.

Soundex® Micro Enclosure

Quick to erect and easy to move, this enclosure provides high attenuation for temporary acoustic screening of smaller site tools, and is perfect for street works.



Soundex® Machinery Enclosure

This all-in-one enclosure presents an exceptionally quick solution for controlling the noise of small portable generators or compressors. Ideal for night work shifts or emergency work.

Soundex® Pile Wrap Attenuator

Designed specifically for piling within the rail industry, this patented attenuator helps to reduce the noise from steel cylindrical piles during impact.



Soundex® Curtain

Designed to provide high-absorption acoustic screening around site plant and other high noise emitting activities. The unique velcro fastening ensures a seamless noise barrier.

Soundex® Quilt

The quilt corresponds to a 3.5m temporary fence panel for convenient installation. Eyelets enable suspension from site fencing, scaffolding and hoardings.



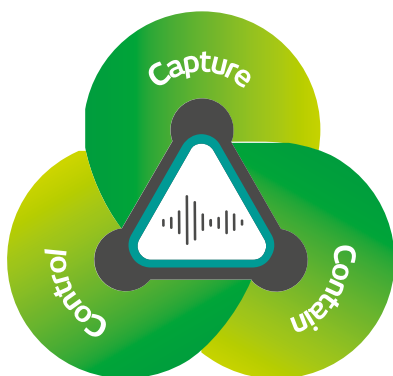
The key to effective noise control

Every site has different noise control requirements. RVT offers free site assessments and tailors noise control solutions to every project. We have nearly thirty years' experience working with a broad range of clients.

Our cutting enclosures have enabled many projects to go ahead, from Metro Bank cutting into high-street walls to create new cashpoints, to roadworks taking place in busy residential areas. And our quilts and curtains have allowed some of the greatest infrastructure works in the country – such as the enormous Crossrail project – to go ahead without disturbing those who live and work around the live sites.

“RVT helped us to create an acceptable environment.
Very happy with your products.”

Alan Hughes, Site Supervisor
Base Build Services, Metro Bank



Capture, Contain, Control

When assessing noise control requirements on site, remember the 3 Cs;

- 1. Capture** - Position the barrier close to the noise source, fully enclosing it where possible.
- 2. Contain** - Ensure that you are using a high quality, seamless acoustic barrier that will absorb the noise.
- 3. Control** - Use an environmental noise monitor to continuously measure noise levels & ensure compliance.

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