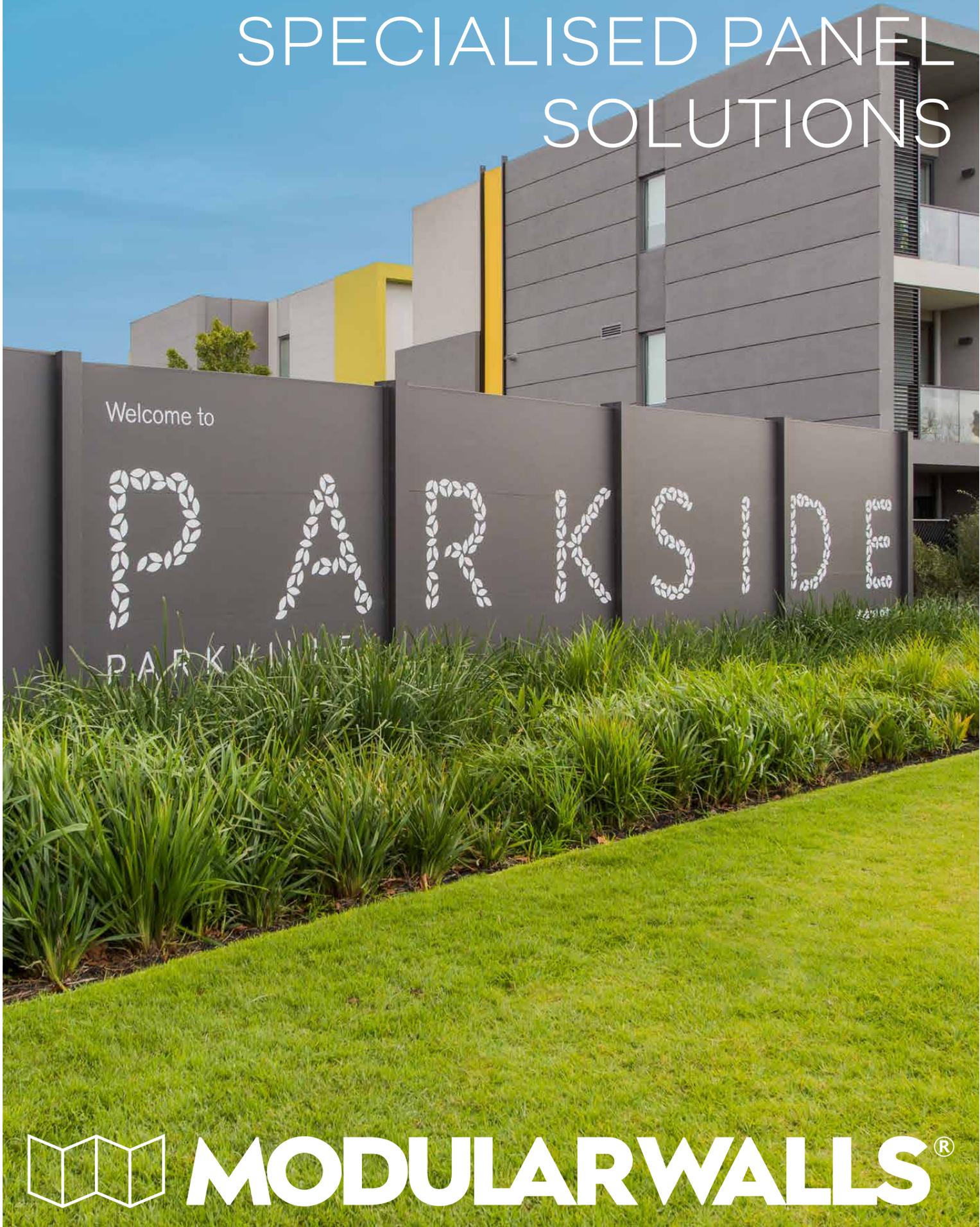
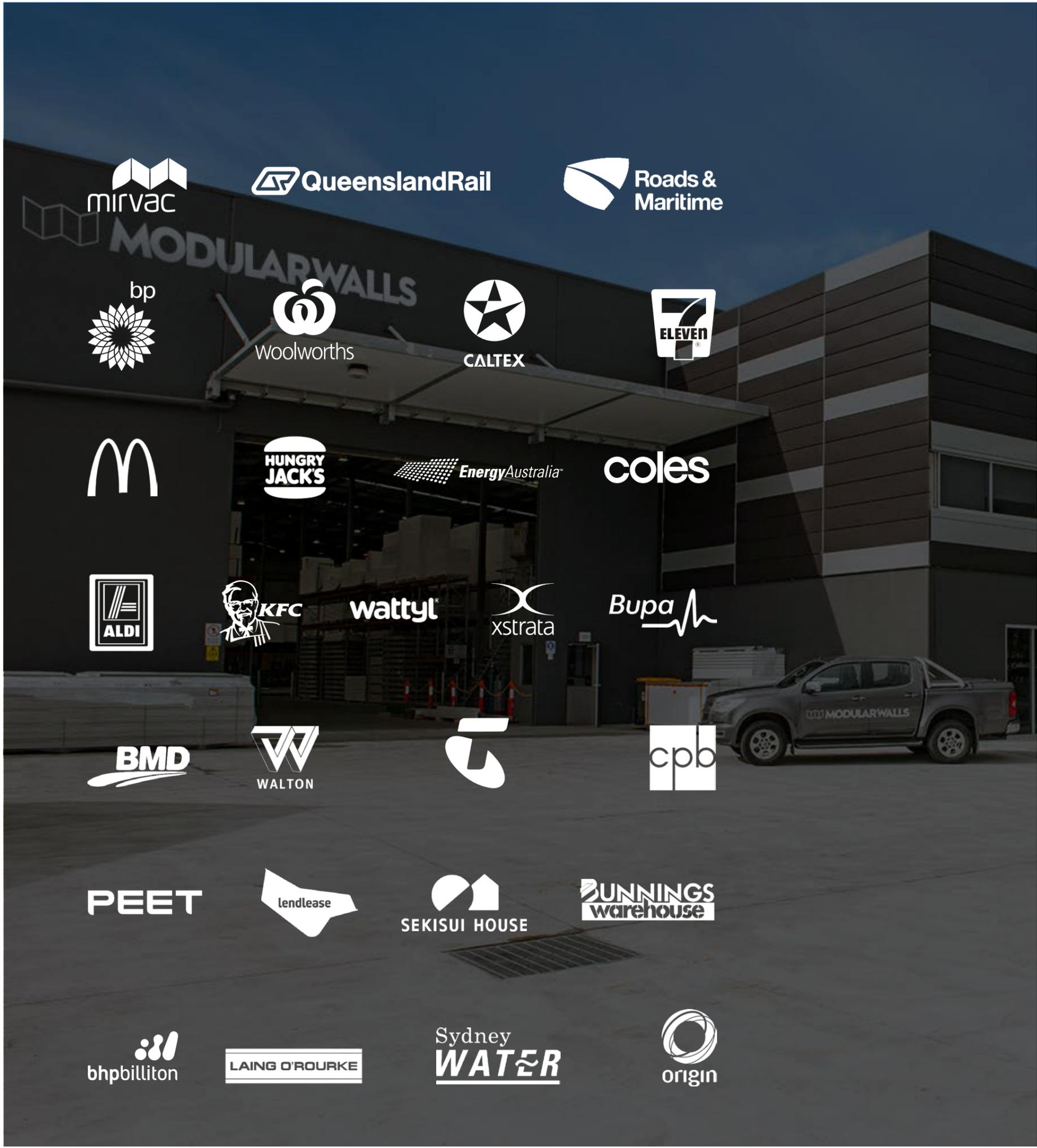


ACOUSTIC WALLS & SPECIALISED PANEL SOLUTIONS



MODULARWALLS®



mirvac

QueenslandRail

Roads & Maritime

bp

Woolworths

CALTEX

ELEVEN

McDonald's

HUNGRY JACK'S

EnergyAustralia

coles

ALDI

KFC

wattyl

xstrata

Bupa

BMD

WALTON

T

cpb

PEET

lendlease

SEKISUI HOUSE

BUNNINGS warehouse

bhpbilliton

LAING O'ROURKE

Sydney WATER

origin

With over 30 years manufacturing experience in composite panelling, we invented the modular wall over 16 years ago. Since then, we have continued to innovate and expand our product range.

We continue to lead through innovation to produce cost effective and acoustically proven solutions for our clients.

ModularWalls™ has a proven performance record across thousands of commercial noise abatement, security, privacy and architectural projects, having partnered with some of Australia's largest companies and government departments.

We are proudly Australian owned and manufactured with a reputation for quality and innovation.

ISO 9001
QUALITY ASSURED
COMPANY

Endeavour
Awards
WINNER 2013

NATIONAL ACOUSTIC LABORATORY TESTED

10
YEAR
WARRANTY

ENGINEERS
AUSTRALIA

AUS
MADE

WHY MODULARWALLS?

As the leading manufacturer of cost-effective boundary walls, ModularWalls can offer a solution for every challenge. Whether it be noise reduction, impact resistance, privacy screening or protection from environmental hazards, our custom design and fast installation will ensure a cost-effective solution.



New Farm State School - New Farm, QLD

The ModularWalls advantage

A reputation for quality and innovation

ModularWalls has successfully delivered over 20,000 projects - some of which have been located in the harshest and most challenging climatic conditions.

Cost effective

With the surge in demand for bricks and concrete, along with increasing cost of labour, construction professionals are looking to alternative wall solutions to emulate the look of traditional products. This saves the high costs and hassles associated with masonry and concrete construction.

Strong and durable

Composite panel technology provides a panel that is strong, lightweight and will not rot, warp or corrode. Virtually maintenance free, a modular wall displays amazing rigidity in any situation. The unique post design allows for any future ground movement without affecting the wall's integrity, therefore, it will not crack like other masonry wall materials.

Designed and manufactured in Australia

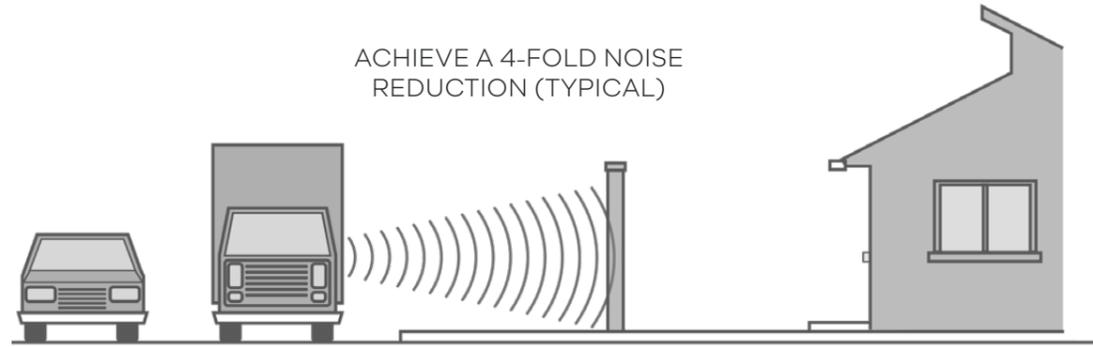
The products are Australian designed and manufactured to strict international ISO 9001 quality standards. With over 16 years proven performance, ModularWalls products are employed in a wide variety of residential, commercial and infrastructure projects both nationally and internationally.



PROVEN ACOUSTIC PERFORMANCE

ModularWalls has been tested and rated by the National Acoustic Laboratory. Typically, you can expect an acoustic Rw rating of 28 to 45 across our range of panels. This makes ModularWalls the perfect choice along busy roads and freeways or in high density housing communities. We have standard panel density options from 15 kg/m² - 30 kg/m².

*For sound absorbing requirements, see AcoustiSorb panel specs on p21.



KFC - Glenwaverly, VIC

Commercial solutions & specialised panels

Lightweight construction

This equates to quick and easy installation with no need for large machinery or lifting equipment, making it a cost-effective solution.

Remote location installation

The lightweight properties of ModularWalls panels allows for remote locations and difficult sites to be readily serviced. We have engineered and built walls in locations as environmentally harsh and remote as Karratha, WA (wind region D).

Reduce noise

Combining innovative composite wall panels and a unique post system, ModularWalls products have been specifically designed to insulate or absorb sound and mitigate noise. ModularWalls products have been tested and rated by the National Acoustic Laboratory. Typically, you can expect up to a fourfold audible reduction in noise.

Simple and easy installation

ModularWalls ensures minimal wastage, saving costs, time and almost completely eliminating construction mess.

Fast construction times

The lightweight components of the ModularWalls system allows for extremely efficient transport and handling of the products on challenging sites.

Easily customised

Our ModularWalls are available in customised heights and can be painted in a variety of superior finishing options and quality. They also have the same pleasing appearance on the back as the front.





KEY PRODUCTS OVERVIEW

SlimWall™

Panel Thickness:
50mm

Aluminium Post:
- 75mm x 75mm
- Up to 2.1m high

Classic Post:
90mm x 90mm
- Up to 2.4m high

Retaining:
Up to 500mm (at 2.5 kPa)
* Classic only



VogueWall™

Panel Thickness:
75mm

Aluminium Post:
- 100mm x 100mm
- Up to 3.0m high

Classic Post:
250mm x 150mm
- Up to 3.0m high

Retaining:
Up to 750mm (at 2.5 kPa)



EstateWall™

Panel Thickness:
75mm

Post:
350mm x 235mm
- Up to 3.0m high

Retaining:
Up to 750mm (at 2.5 kPa)



BarrierWall™ / GuardianWall™

Panel Thickness:
75mm, 100mm

Barrier Post:
- Up to 4.5m high

Guardian Post:
- Up to 12m high



AcoustiMax®

Acoustic panels

- Fibre cement/EPS composite construction
- Lightweight
- Panel spans up to 4.2m
- Custom manufactured posts or universal beams - subject to height and wind region



Applications

- Visual screening
- Security
- Boundary walls
- Front walls
- Pool areas
- Acoustic attenuation
- Housing developments
- Childcare centres
- Schools

TerraFirm®

Retaining panels

- Heavy duty fibre cement outer skins
- High density EPS core
- Heavy duty reinforcing within core
- Retains up to 3.0m high
- Up to 10kPa live loads



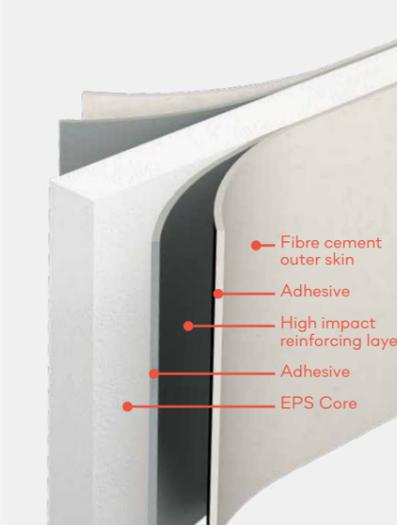
Applications

- Stand-alone retaining walls
- Integrated retaining walls
- Stepped blocks within developments
- Aesthetic replacement for sleeper retaining walls
- Concrete alternative

EnduroMax®

Impact resistant panels

- Roadway compliant
- Ultra-high impact resistance
- Fibre cement outer skin
- High impact reinforcing layer
- Vandal resistant
- Superior acoustic performance
- Panel spans up to 4.2m



Applications

- Road and rail corridors
- Civil infrastructure environments
- High traffic areas
- Car parks

AcoustiSorb®

Sound absorbing panels

- Pre-coloured, perforated aluminium outer skin
- PET sound absorbing core
- Lightweight yet robust construction
- Panel span up to 4.0m
- Typical audible noise reduction of up to 40db and an NRC of up to >0.9
- Fire rated options available

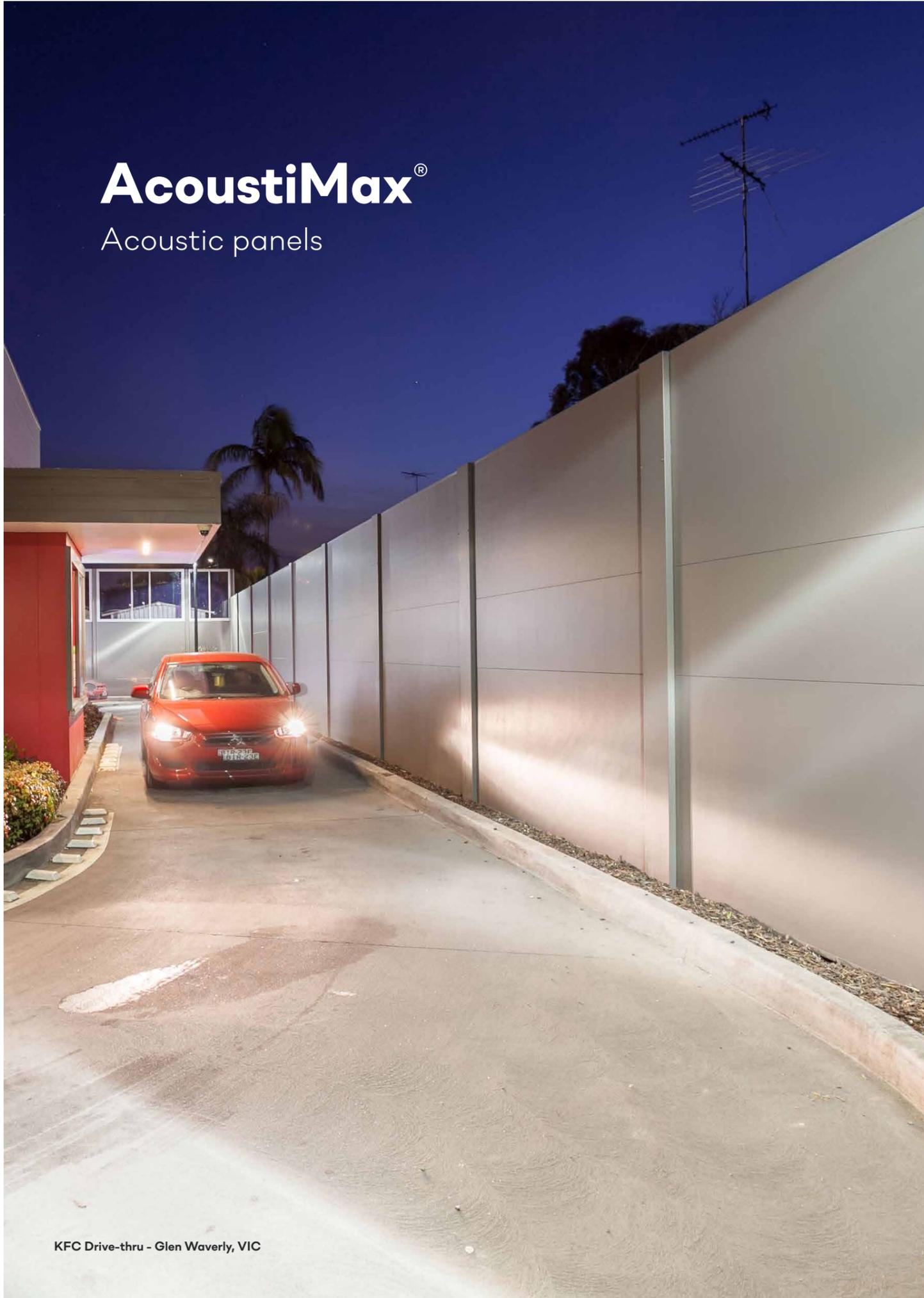


Applications

- Extreme acoustic absorption requirements with tunable RW rating
- Loading docks
- Road & rail tunnels
- HVAC units
- Internal walls within theatres
- Acoustic enclosures

AcoustiMax[®]

Acoustic panels



KFC Drive-thru - Glen Waverly, VIC

The proprietary AcoustiMax panel is our core modular wall solution, and the ideal choice for architects and developers seeking an effective noise barrier that is aesthetically versatile, as well as economical.

Consisting of an EPS core with an external layer of fibre-reinforced cementitious sheets, AcoustiMax is a lightweight, impact resistant modular wall panel with a smooth, designer finish.

The lightweight, modular design of the AcoustiMax panel makes it quick and easy to install, dramatically reducing build times as well as the labour and machinery needed for challenging sites.

The AcoustiMax comes in standard thicknesses of 50mm and 75mm, permitting its usage with a variety of modular wall systems including SlimWall, VogueWall, EstateWall, BarrierWall and GuardianWall.

- **Fibre cement / EPS composite construction**
- **Lightweight**
- **Impact resistant**
- **Panel span up to 4.2 meters**



Hungry Jacks Drive thru - Craigieburn VIC



Childcare Centre VogueWall with decorative translucent windows

Rw Rating	28
Density (kg/m ²)	15 - 30 (typical)
Fire (BAL)	BAL29 (typical) up to BAL40
Panel thickness (mm)	50 & 75
Panel length (mm)	2400, 3000, 4200
Panel width (mm)	600, 900, 1200
Wind Region	A, B & C - D on request



TerraFirm®

Retaining panels



Heavy Duty Retaining Wall Installation

Uneven ground can create many challenges when it comes to designing and installing a boundary wall or fence in both residential and commercial applications. The TerraFirm panel stylishly integrates the retaining wall and fence or boundary wall into one seamless design, creating a consistent and visually appealing project, without the need and cost of building a traditional masonry wall.

The TerraFirm panel replaces the need for concrete or timber sleepers, saving a significant amount of time and space; minimising waste and excessive material usage.

- Up to 10 kPa live loads
- Cost effective
- Durable, lightweight modular construction
- Quick and easy installation
- Easily customised
- Lightweight assembly and minimal site disruption
- Can retain up to 3.0m in soil height



Types	PRO (up to 5kPa) X & XL (up to 10kPa)
Density (kg/m ²)	30.0 - 49.0
Fire (BAL)	BAL40
Panel thick. (mm)	PRO (78mm thick panels) X & XL (113mm thick panels)
Panel length (mm)	PRO (2000mm panels lengths) X & XL (2400mm panels lengths)
Panel width (mm)	600, 900, 1200
Soil Retention	up to 3.0m at 10kPa



EnduroMax[®]

Impact resistant panels



Bruce Highway - Cooroy, QLD

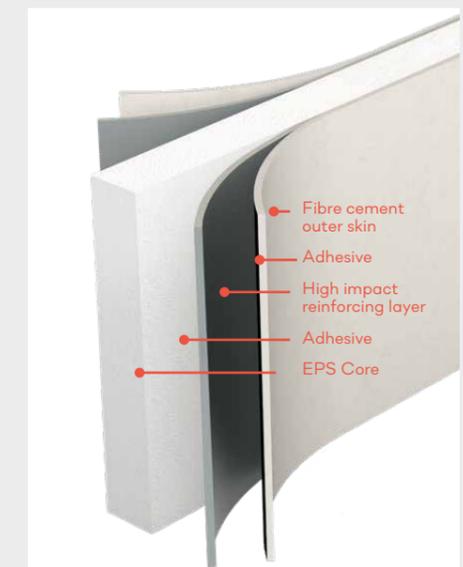
EnduroMax is an ultra-resilient, high performance modular noise panel designed specifically for the extreme conditions associated with road, rail and civil infrastructure environments. With superior acoustic performance, strong fire resistance, and high impact resistance, the EnduroMax panel is designed to withstand minor impacts and vandalism incidents.

EnduroMax panels have passed rigorous testing for impact resistance and strength.

- Roadway compliant
- Offers a dramatic reduction in CO₂ emissions compared to concrete
- Ultra-high impact resistance
- Vandal resistant
- Superior acoustic performance
- Panel spans up to 4.2 metres
- More cost effective and easier installation in comparison to concrete
- Pre-approved to MRTS 15 (QLD)
- RMS R271 compliant (NSW)
- 50 + year design life

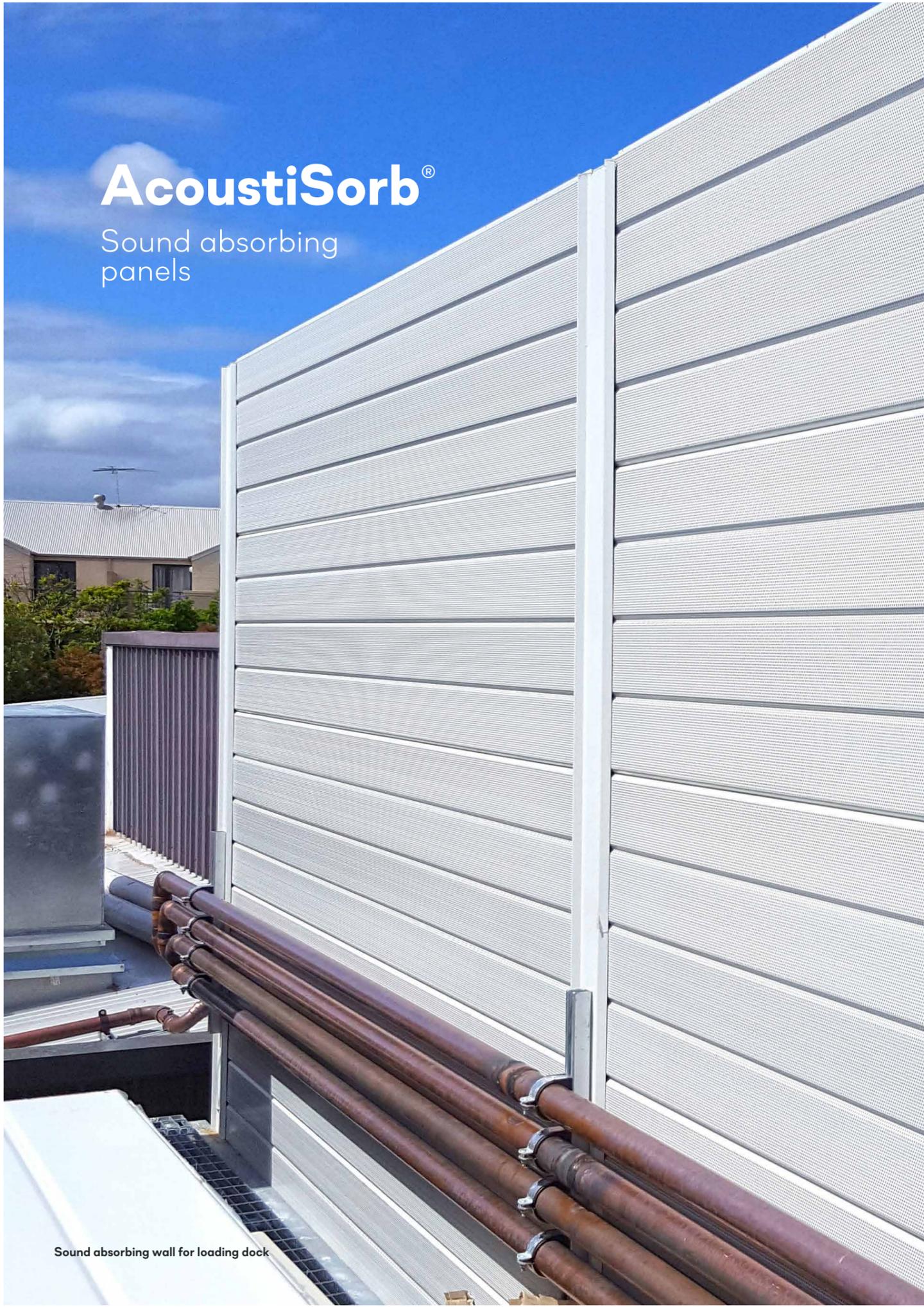


Rw Rating	33 (typical)
Density (kg/m ²)	30.50 (typical)
Fire (BAL)	BAL40
Panel thick. (mm)	75, 100, 150
Panel length (mm)	up to 4200
Panel width (mm)	600, 900, 1200
Wind Region	A, B, C & D



AcoustiSorb®

Sound absorbing panels



Sound absorbing wall for loading dock

AcoustiSorb is a composite, all-in-one noise absorption barrier, specifically designed to meet or exceed NRC requirements. It is the highest performing lightweight, modular product of its kind, and is simple and easy to install.

Designed to meet some of the toughest acoustic pollution challenges, the robust design of the AcoustiSorb panel makes it ideal for sound insulation in noise-intensive environments such as road and rail corridors, loading docks and around heavy machinery or generators.

The perforated aluminium outer skin panel enhances the ability of the core material to absorb sound, enabling it to achieve an NRC rating in excess of >0.9.

- Suitable for external and internal applications
- Pre-finished aluminium body ensures 50+ year design life
- Environmentally friendly materials including a recycled PET core
- Tune panel performance by introducing a plank to customise your RW rating
- Lightweight and impact resistant
- Fire rated option available

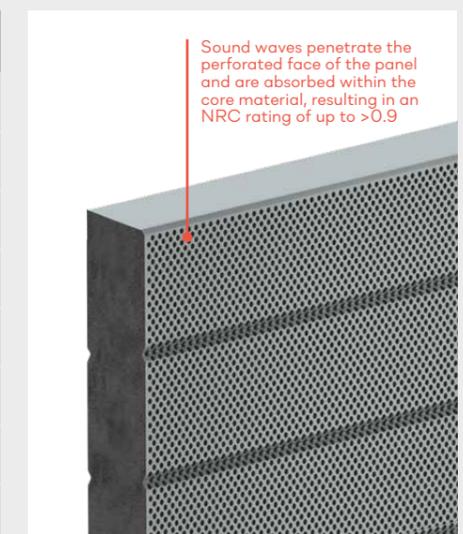


Woolworths rooftops - sound absorbing enclosures



Goodman Fielder Bakery - VIC

Panel Type	75mm	100mm
Rw Rating (tuneable)	29 -34	34 - 45
Density (kg/m ²)	14.32+	14.72+
Fire (BAL)	BAL29	BAL29
Panel thickness (mm)	75	100
Panel length (mm)	up to 4000	up to 4000
Panel width (mm)	600	600
Wind Region	A, B, C & D	A, B, C & D
NRC Rating	0.90 (typical)	1.0 (typical)



Sound waves penetrate the perforated face of the panel and are absorbed within the core material, resulting in an NRC rating of up to >0.9

RESIDENTIAL WALL & FENCE COLLECTIONS



SLIMWALL™

Panel thickness

50mm

Post options

Classic: 90mm x 90mm

Aluminium: 75mm x 75mm

Height

Classic: Up to 2.4m

Aluminium: Up to 2.1m



VOGUEWALL™

Panel thickness

75mm

Post options

Classic: 250mm x 150mm

Aluminium: 100mm x 100mm

Height

Classic: Up to 3.0m

Aluminium: Up to 3.0m



ESTATEWALL™

Panel thickness

75mm

Post options

Classic: 350mm x 235mm

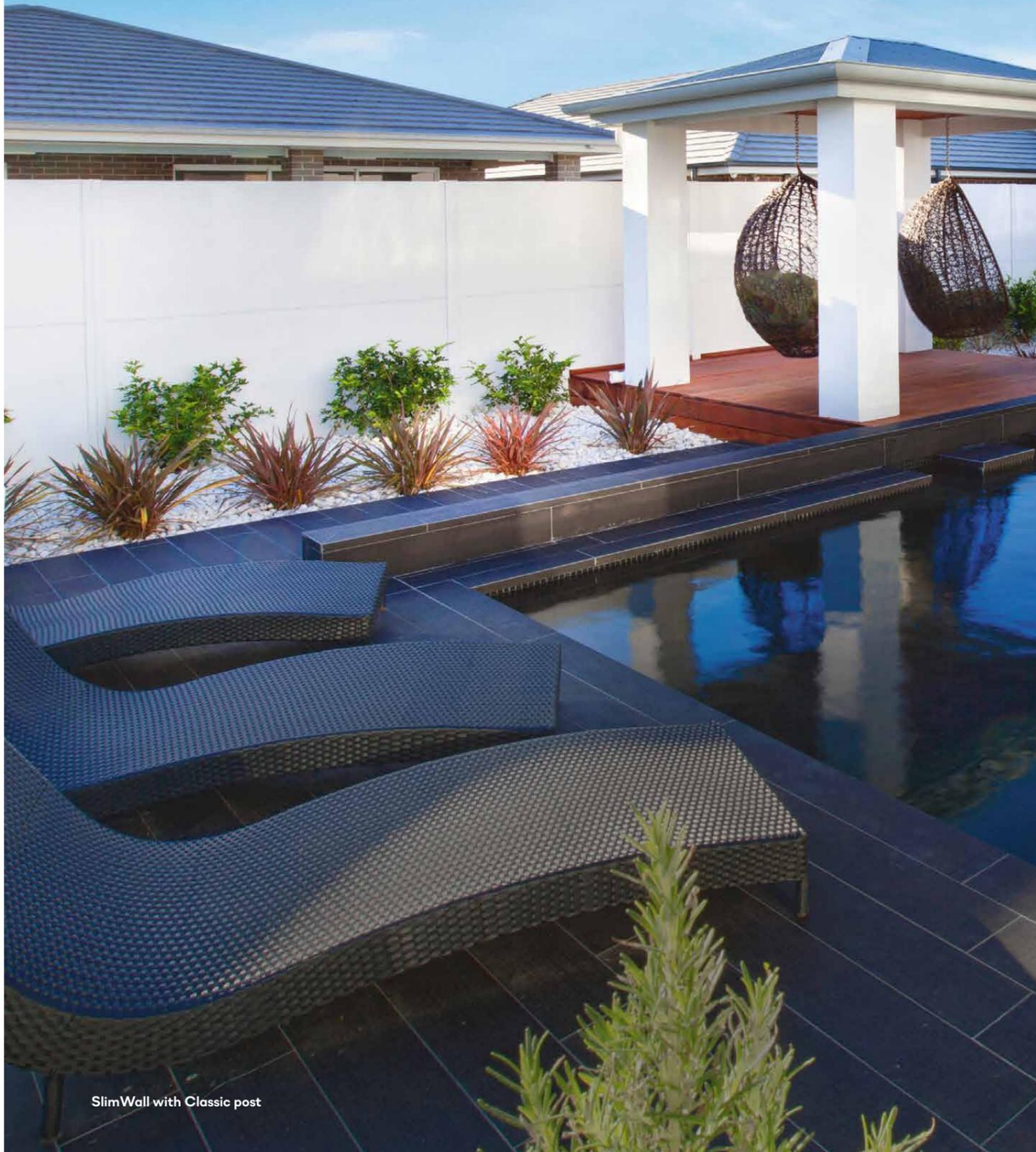
Height

Classic: Up to 3.0m



SlimWall™

Our most cost-effective wall



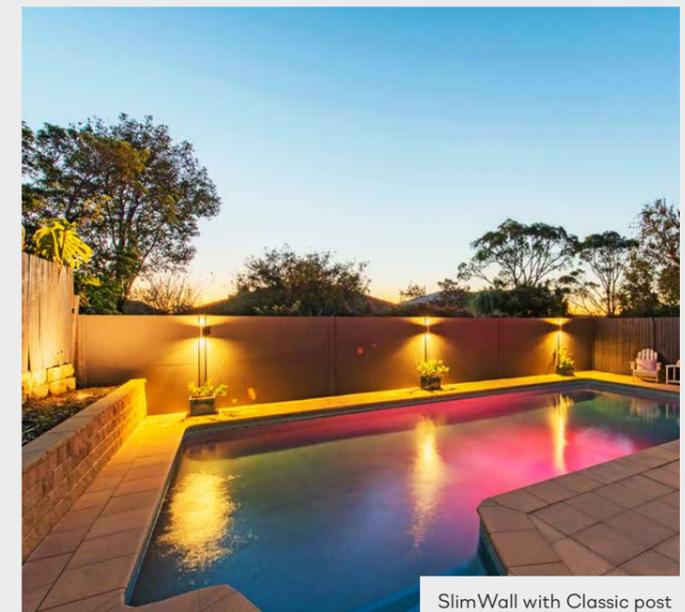
SlimWall with Classic post



SlimWall boundary wall for pool area

With lightweight composite panels and posts, SlimWall has a sleek and modern design that can seamlessly match the existing style of any home. As Australia's fastest growing fencing product, SlimWall can transform your garden into a stylish outdoor oasis.

- Proven acoustic performance
- Extremely cost effective
- Durable, lightweight modular construction
- Quick and easy installation
- Easily customised
- Expressed joint option available
- Available with either our Classic or Aluminium post



SlimWall with Classic post

Available heights:

Up to 2.4m (Classic post)

Up to 2.1m (Aluminium post)

Panel thickness: 50mm

Wall capping: Flush finish

Post capping: Flush finish

Aluminium post:

75mm (face) x 75mm (depth)

Classic post:

90mm (face) x 90mm (depth)

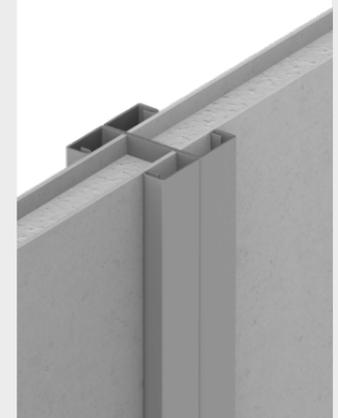
Retaining: up to 500mm (at 2.5kPa)

*Classic only

Aluminium post



Classic post



VogueWall™

Our most popular wall



VogueWall with Classic post for pool area

VogueWall is designed to closely mirror the dimensions of a single brick wall with piers. It is our most popular wall style as it is so versatile. Whilst decorative in its own right, VogueWall will make a statement as a front wall, but is also the perfect solution for a boundary wall, feature wall, privacy wall or acoustic barrier.

- Offers superior noise reduction qualities
- Customise with lighting, letterboxes, slats and gates
- Rated for all wind regions in Australia.
- Exposed joint option available
- Available with either our Classic or Aluminium post

Available heights:

Up to 3.0m (Classic post)

Up to 3.0m (Aluminium post)

Panel thickness: 75mm

Wall capping: Flush or external finish

Post capping: Flush or external finish

Aluminium post:

100mm (face) x 100mm (depth)

Classic post:

250mm (face) x 150mm (depth)

Retaining: up to 750mm (at 2.5kpa)

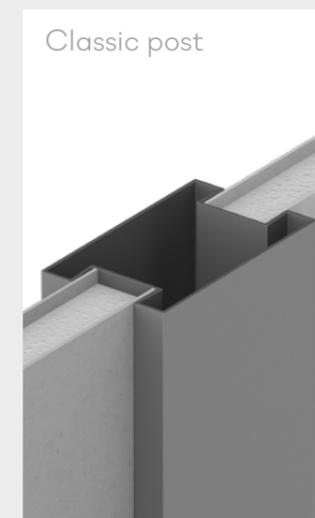


VogueWall Aluminium with lighting

Aluminium post



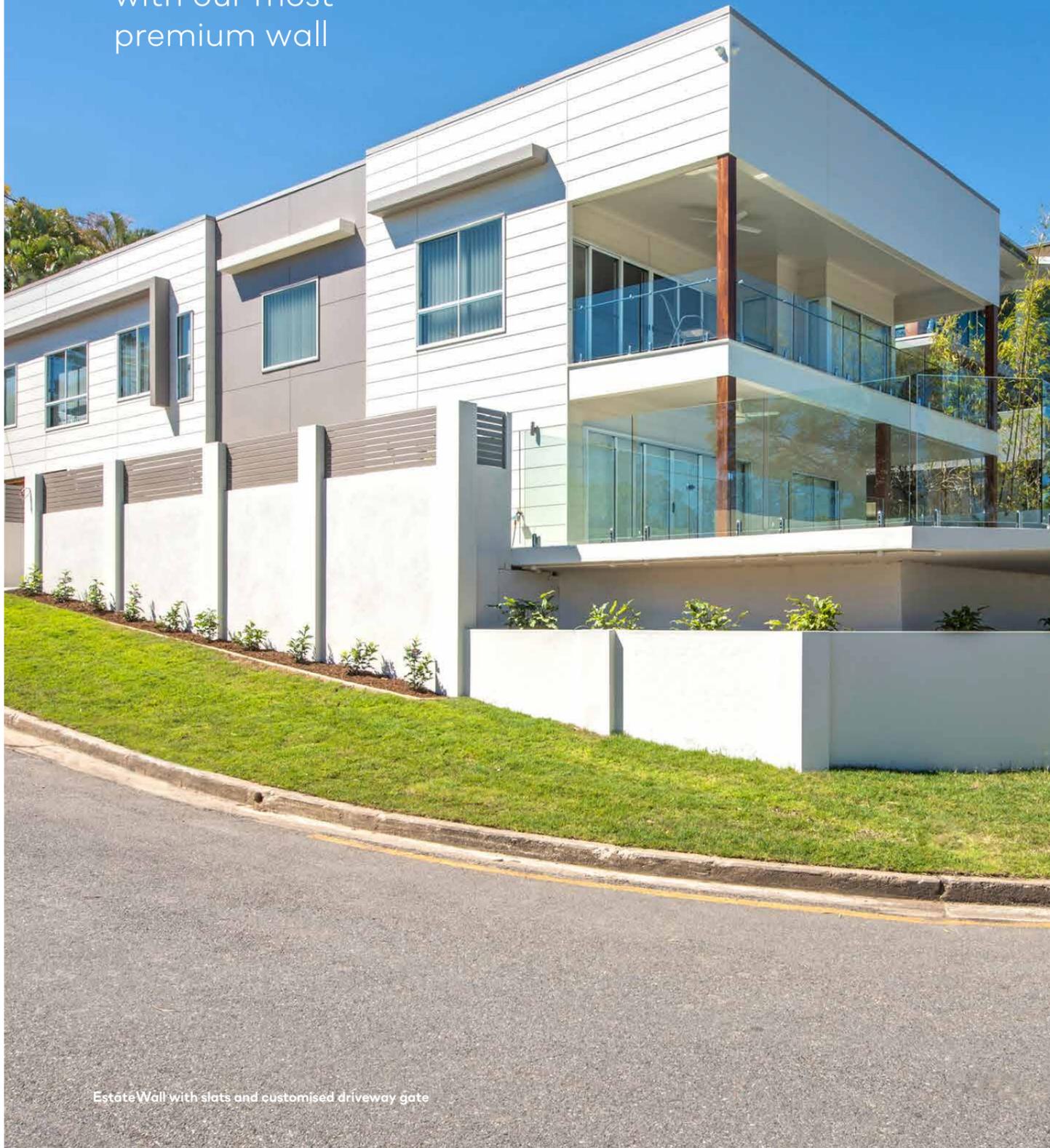
Classic post



VogueWall with Classic post

EstateWall™

Make a statement
with our most
premium wall



EstateWall with slats and customised driveway gate



Front EstateWall

EstateWall is designed to closely mirror the dimensions of a brick wall with large piers. It is a premium option and ideal for decorative front walls that make a grand statement.

It best suits front walls, premium boundary walls, acoustic walls and security perimeters. Acoustically tested and rated as a sound barrier.

- Offers superior noise reduction qualities
- Easily mount a letter box into the post or panel
- Add lighting and gates for secure boundaries
- Add decorative slat infills if desired
- Rated for all wind regions in Australia.
- Can retain up to 750mm

Available heights: Up to 3.0m

Panel thickness: 75mm

Wall capping: Flush or external finish

Post capping: Flush or external finish

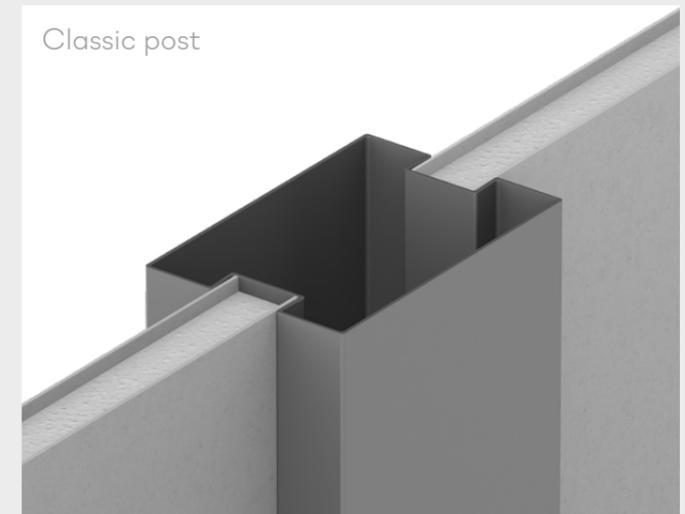
Post: 350mm (face) x 235mm (depth)

Retaining: up to 750mm (at 2.5kpa)



Driveway boundary EstateWall

Classic post





MODULARWALLS® - THE SUPERIOR ALTERNATIVE

A Modular Wall provides better aesthetics and superior performance capabilities relative to traditional walls and fences - but at a more affordable price.

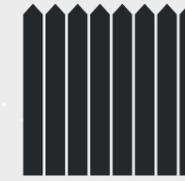
Highly acoustic, fast to install, easy to maintain, and great to look at - it is not surprising that ModularWalls is experiencing strong demand right throughout Australia.

EstateWall front entrance boundary

Simply better...

ModularWalls products have been designed and manufactured in Australia, for Australian conditions. Our range of boundary wall solutions compare favourably to other traditional fence and wall alternatives.

ModularWalls® vs timber fencing:



- ✓ Superior aesthetics
- ✓ Better acoustic performance
- ✓ Will not rot or discolour
- ✓ Much longer design life

ModularWalls® vs metal fencing:



- ✓ Superior aesthetics
- ✓ Better acoustic performance
- ✓ Panels will not rust
- ✓ More versatile

ModularWalls® vs slatted fencing:



- ✓ Better acoustics and privacy
- ✓ Stronger structure
- ✓ Greater durability
- ✓ More economical

ModularWalls® vs brick walls:

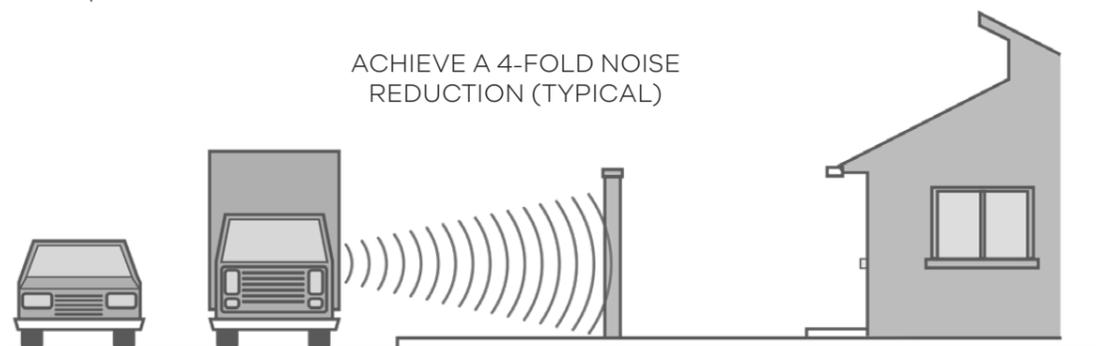


- ✓ Significantly more affordable
- ✓ Will not crack over time
- ✓ Easier and faster to install
- ✓ No strip footings required



PEACE AND QUIET

ModularWalls has been National Acoustic Laboratory tested and rated. Typically, you can expect an acoustic benefit of around 20+ dB reduction in audible noise. This makes ModularWalls the perfect choice if you live on a busy road or simply want to reduce neighbourhood noise and transform your home into a quieter, more peaceful oasis.



SlimWall with expressed joint feature

Do it yourself or have it installed

Every residential customer has a choice to either:

DIY - Install yourself

ModularWalls products have been designed with the DIY customer in mind. Installation is fast and easy, and does not require the use of heavy machinery, extensive digging or specialist trades. You will be supported through the installation process with Head Office assistance on correct material choice and 3D drawings to guide you along the way. We also offer 7-day phone support for all DIY customers.

The installation process comprises of a few simple steps:

Step 1. Dig holes

Step 2. Concrete posts

Step 3. Slide in panels

Step 4. Custom finish as desired

For detailed installation instructions, please download the Installation Guide from our website, modularwalls.com.au, or watch our installation videos.

Professional - Have your wall installed by a skilled trade partner

Some people aren't so handy or simply don't have the time. Let one of our skilled tradesmen come to your site and give you a no obligation quote and site assessment.

A tradesmen can have local knowledge with councils and understand ground conditions, which is a great advantage and provides a more seamless process.

ModularWalls offer an Australiawide network of professional installers who can come to your property and provide a free, no obligation quote. They will provide all the tools, arrange the supply of materials and have the skills to deliver a turnkey solution from start to finish.





BarrierWall with AcoustiMax panels

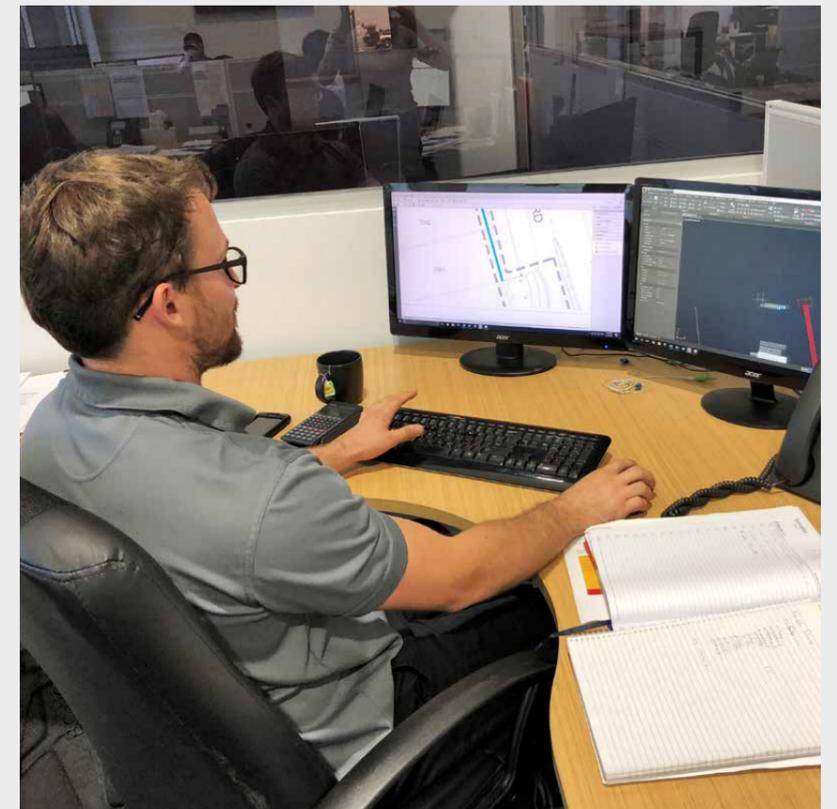
Installation

ModularWalls have an in-house team who oversee the whole installation project. Because our team is in-house, we guarantee a seamless transition from design approval through to product manufacture and final installation.

The ModularWalls team have managed design and installations for some of Australia's largest companies, in regions as harsh and remote as Karratha, WA (Wind region D). We have an experienced team of accredited and licensed commercial installers with a proud record of zero site hours lost through injury. With extensive Tier 1 and mining site experience we offer a complete and seamless service from concept through to delivery.

Design & engineering

ModularWalls' team of structural and civil engineers will assist contractors in completing your project on time and on budget, using the latest and most up to date computer programs to design and model your complete wall and footing solution. Using leading edge structural analysis engineering software, we design and construct the most robust structures from the ground up to ensure your project is completed as cost effectively as possible.



CASE STUDIES



AcoustiMax® (SlimWall™)



Case Study 1

RISE 'N' SHINE KINDERGARTEN, NSW

Project Summary

- Acoustic fence to keep the playground noise in as well as traffic noise out
- Blackboard paint applied to one panel to create a truly interactive learning environment
- Bright colours to enhance the playground and engage children

Background

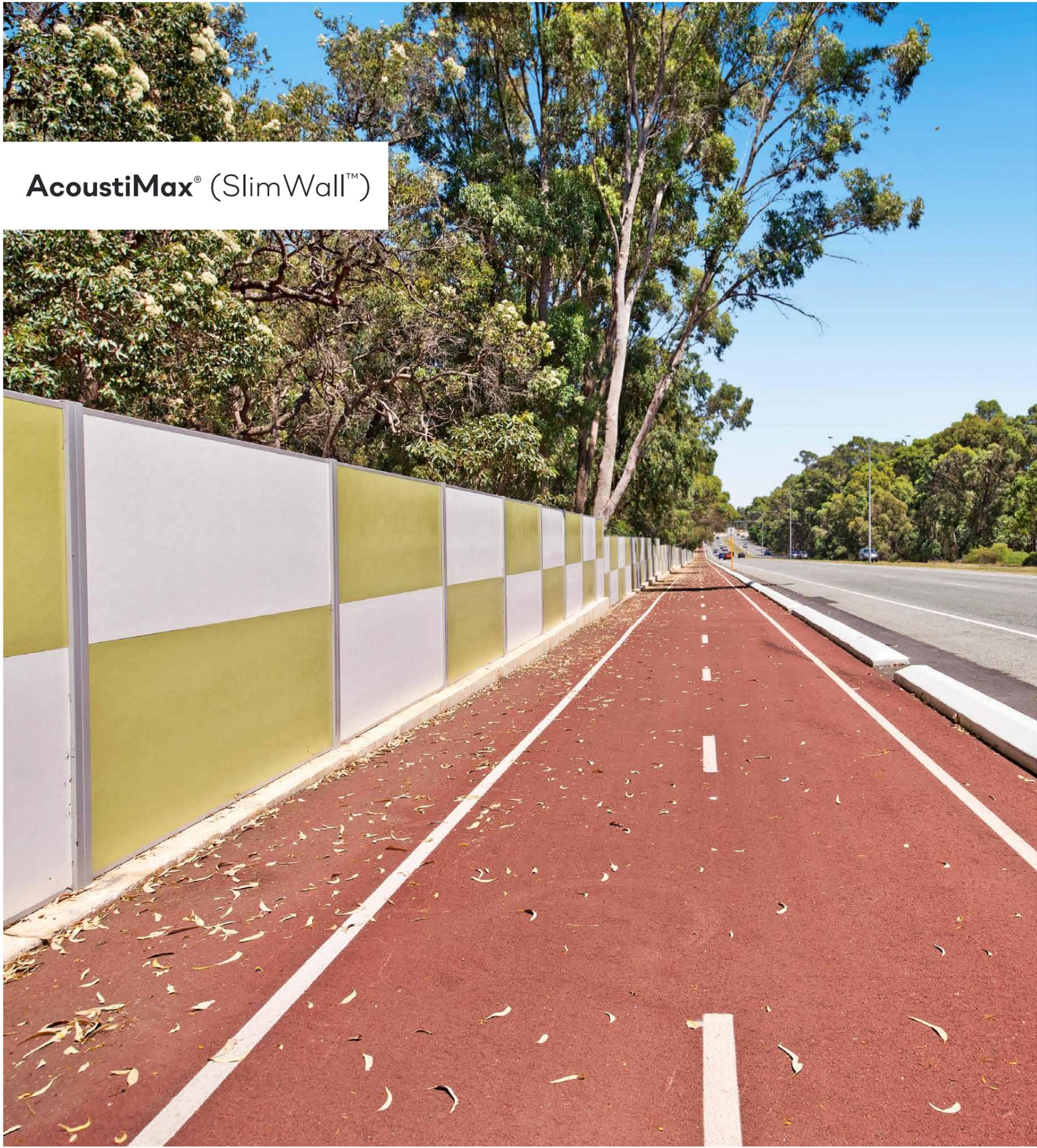
A new childcare centre being built near a busy road in Sydney NSW required an acoustic fence as specified by Council as part of the DA application. The Council's purpose was to keep the noise of the kids in but in reality, and due to the Childcare centre's close proximity to a busy road, it also acted as a barrier for the centre to keep the traffic noise out.

Solution

ModularWalls installed a SlimWall acoustic fence to the perimeter of the centre's new playground at a height of 2.1m. To maintain access and aesthetic continuity a Modular composite gate was also installed at one end. Our Modular gates provide the same look and feel, as well as acoustic protection, to any wall style and can accept varying lock and latch requirements.

The final wall was painted by the centre themselves in bright and vibrant colours to enhance the look and feel for the kids. One section was also painted with a Dulux Blackboard paint which meant the kids could scribble away on a full-size blackboard!





AcoustiMax® (SlimWall™)

Case Study 2

SAFETY BAY ROAD, PERTH WA

Project Summary

- New shared path constructed along Safety Bay Road in Perth, WA, required an acoustic fence
- A 1.8m high SlimWall fence with integrated retaining, running 700m in length, was deemed the perfect solution
- Finished to complement surrounding vegetation and enhance the pedestrian/cyclist experience

Background

Walkability and cyclability are huge assets for cities. Shared paths, such as the one constructed along Safety Bay Road in Perth, WA last year, are fast becoming a 'must' for the future of urban planning. In the final stages of the path's completion, an acoustic fence was specified to protect surrounding areas from the road's noise pollution, whilst also harmonising with the surrounding vegetation.

Solution

To complete their protected, attractive path, the Department of Transport turned to the SlimWall for a visually appealing acoustic fence. The SlimWall acoustic fence, utilising AcoustiMax panels, runs for almost a kilometre along the newly constructed shared pathway. Its modular nature provided rapid installation and a cost-effective solution, aiding the client to meet budget. Additionally, the wall was finished with a soft yet brightening design to enhance the pedestrian and cyclist experience.



AcoustiMax® (SlimWall™)



Case Study 3

DAN MURPHY'S, TWEED HEADS, NSW

Project Summary

- Acoustic fence for a new Dan Murphy's store
- Painted in Dan Murphy's corporate colours
- Minimum 15kg/m² squared density requirement for sound attenuation

Background

Dan Murphy's had an acoustic requirement imposed on them by the local council to protect nearby residents from the carpark activities.

The wall had to be a minimum of 1.8m high and mounted to the top of a concrete upstand. To maintain a pleasing aesthetic look and feel, the architect specified that the wall had to have the ability to be painted in 'Dan Murphy Green'.

Solution

ModularWalls engineered a job specific internal core receptor that was grouted into the concrete upstand during construction. This then allowed a seamless fix for the 1.8m high SlimWall to be attached to the receptor.

The wall was almost 100m long and once completed was coated with an exterior grade paint finish to Dan Murphy's specification.



AcoustiMax® (VogueWall™ Aluminium)

Case Study 4

EPSOM CHILDCARE, VIC

Project Summary

- New childcare centre built in a supermarket carpark, between residential areas and a busy road.
- Acoustic wall required to keep playground noise in, as well as traffic noise out.
- Entire installation, including customised wall finishes, completed in just 4 days.

Background

A new childcare centre was being built in a supermarket carpark, beside a residential area and a busy road in Bendigo, VIC. The client, Urban Studios, required a fast and cost-effective acoustic wall to protect neighbouring residents from playground noise, as well as protect the children from traffic noise. With children's safety of paramount priority, a timber fence was not viable, due to splintering and cracking.

The solution also needed to complement their landscaping, with superior aesthetics to reflect the modern architecture of the newly built centre.

Solution

ModularWalls provided a turnkey solution, supplying and installing a 2.1m high VogueWall perimeter acoustic wall. Utilising the aluminium post option, the wall required even smaller footings than the classic galvanised steel posts, delivering a faster and more cost-effective installation.

The installation was completed in just 4 days, including the customised finish. The fence was painted in the same grey shade as the childcare centre, with blocks of colours to create a harmonised architectural style.





Case Study 5

BUPA AGED CARE

Bupa Aged Care is committed to an industry-leading model of care, as one of Australia’s leading residential aged care providers, with more than 70 care communities across the country. Creating a safe space to nurture their resident’s serenity and peace of mind is of paramount priority.

As the leading supplier of visually appealing acoustic wall solutions, ModularWalls was engaged to construct secure boundary acoustic walls for multiple Bupa Aged Care facilities around the Sydney region. By choosing ModularWalls’ alternative solutions, the client was able to save a substantial percentage of costs over a full masonry alternative, without compromising on aesthetics or acoustic performance.

St Ives, NSW

A new facility, situated at an intersection of 3 busy roads in St Ives, required a noise barrier to shield their calming garden oasis from traffic noise. A custom combination of offset EstateWall and VogueWall provided an aesthetically harmonised noise barrier. Reaching heights between 2.5m – 3.3m, custom-sized posts stepped in and out along the boundary, with timber battens fixed to the exterior face to harmonise with the facility’s façade. Incorporation of TerraFirmX retaining panels provided a seamlessly integrated 1.2m high retaining solution, easily supporting the lush garden beds within.

Sutherland, NSW

ModularWalls worked closely with Bupa, local council and Taylor Constructions to design a wall that blended with the surrounding landscape, after original specifications for a timber fence was deemed unsuitable, due to high traffic noise and unappealing veneer. The minimal impact design of the VogueWall post footing provided the perfect solution, carefully navigating between existing protected trees with setback bays installed every 9m. Finishing customisations included designer stone cladding and a non-sacrificial anti-graffiti top coat.



AcoustiMax® (VogueWall™)



Case Study 6

KFC, GLENWAVERLY NSW

Project Summary

- Acoustic barrier required to shield neighbouring residents from car park and drive-thru activity
- Finished to harmonise with branding values and store's architectural design
- Offered highly cost-effective solution with minimal disruption to operation of restaurant

Background

A new KFC store with extended operating hours required a perimeter noise barrier wall shielding the neighbouring residents from its carpark and drive-thru activity.

Solution

The solution offered by ModularWalls was a 3m VogueWall, with our AcoustiMax75 panels, achieving a noise reduction of almost 30dB.

The finished wall presented like an inherent extension of the KFC drive-thru, harmonising with branding values and the store's architectural design. ModularWalls provided a turnkey solution from concept drawings, detailed design and engineering through to installation. The process was highly cost-effective with minimal disruption to the operation of the restaurant.

As commercial developments continue to collide with residential dwellings, noise is fast becoming one of the most contentious environmental issues. ModularWalls are industry leaders in assisting businesses with their noise abatement treatments. Our proprietary AcoustiMax panel is a lightweight, impact resistant modular wall panel that possesses outstanding acoustic properties and a smooth designer finish. It is the ideal choice for architects and developers seeking an effective noise barrier that's aesthetically versatile as well as economical.



AcoustiMax® (VogueWall™)

Case Study 7

KELLYVILLE, NSW

Project Summary

- Rapid installation was key for this new residential development
- Aesthetics were required to complement the modern architecture of the new homes
- VogueWall offered a drastic 77% reduction in installation time, compared to brick

Background

The client required a stylish wall solution with a quick construction timeline to shield a display house from a major entry road into a new community development in Kellyville, NSW. ModularWalls was able to offer unparalleled ease of installation, aesthetic appeal and synergy with the development ideal and house architecture.

Solution

The VogueWall system, measuring 2.4m high, ran approx. 100m long, with installation completed around other trades in just 8 days. Compared to the average estimate of a masonry installation of the same size, this equates to a staggering 75-77% reduction in installation time, in addition to the site disruption avoided by using a post and panel system that doesn't require strip footings.

The superior and versatile aesthetics of the VogueWall saved the client even more time, due to its pre-primed, cementitious surface only requiring two coats of exterior paint to achieve a premium, rendered finish.

VogueWall is designed to closely mirror a rendered masonry wall. It is our most popular wall style, due to its versatility, acoustic capabilities and premium aesthetic. Decorative in its own right, VogueWall is the perfect solution for a boundary wall, feature wall, privacy wall, pool wall or visually appealing acoustic barrier.





AcoustiMax® (VogueWall™)

Case Study 8

CADDENS HILL, NSW

Project Summary

- Road noise wall needed for picturesque community development
- Dual purpose solution required acoustic attenuation and retaining capabilities
- Natural, Australian landscapes were a key value of the development, and thus needed to be reflected within the aesthetic design

Background

This picturesque master-planned community in NSW was in need of a boundary wall system that:

- Protected its serene environment and residents from traffic noise
- Harmonised with the picturesque Australian landscape surrounds
- Provided an easy, speedy installation that their contractors could handle
- Delivered both superior aesthetics and retaining functions

Solution

The VogueWall system with integrated retaining panels was a stand-out solution for their multi-layered design brief. With AcoustiMax acoustic panels delivering superior sound attenuation, and TerraFirm retaining panels seamlessly integrated into the lower section of the noise wall, this dual-purpose system minimised the cost, time and hassle of needing to install two separate products.

The modular construction methodology offered a swift, straightforward installation that was easily managed by their construction team. The completed noise wall was finished to harmonise with the soft tones of the natural, undulating Australian landscape that surrounded the community development.



AcoustiMax® (EstateWall™)



Case Study 9

WARWICK FARM RACECOURSE, NSW

Project Summary

- Perimeter wall that provided aesthetic harmony with heritage values of the racecourse
- Noise attenuation required to shield horses from traffic noise of adjacent main road
- CNC cut signage and equestrian detailing individually handcrafted to each panel

Background

As part of a \$25M upgrade project, Warwick Farm Racecourse required a perimeter wall with an aesthetic elegance that honoured the heritage, history and tradition of the area. Additionally, the solution necessitated acoustic properties to shield the horses from the traffic noise caused by Governor Macquarie Drive.

Solution

The aesthetically grand yet versatile EstateWall provided the perfect canvas for this acoustically rated feature wall. From concept designs, to sample walls, to final installation, ModularWalls worked closely with the main client, Inglis, to refine and perfect the final solution.

Custom post caps and framed panels worked in harmony to create a visually striking yet graceful wall design. CNC cut signage and equestrian silhouettes were meticulously applied by hand along the wall, embracing the excitement and vitality of the events within. The final solution perfectly harmonised with the existing side boundary, showcasing classical features of cast iron fencing and large pillars.



AcoustiMax® (BarrierWall™)



Case Study 10

MCDONALDS, SANDGATE, NSW

Project Summary

- Acoustic and visual wall for protection from a train line
- Ability to be mounted onto current block wall and painted in McDonald's brand colours
- To Queensland Rail Civil-SR-014 specification

Background

McDonalds at Sandgate borders a train line at the rear. The wall was to serve a dual purpose of sound attenuation as well as provide visual security for both boundaries. The wall needed to be 3m tall and mounted onto a block wall, necessitating an engineering assessment to design a suitable and invisible receptor to attach the posts to, as well as considering the imposed loads that the wall and wind actions will apply to the block wall.

Solution

A VogueWall utilising our AcoustiMax 75mm panel was selected, as it could exceed the acoustic attenuation as well as achieving the 3m height requirement. The final wall configuration took many twists and turns around the complex boundary lines and once painted looked amazing, tying the boundary wall into the colour scheme of the store.



AcoustiMax® (GuardianWall™)



Case Study 11

COLES ASHMORE-BENOWA, QLD

Project Summary

- Acoustically rated screen required to shield residents from shopping centre noise
- GuardianWall solution with AcoustiMax75 panels were utilized along the roadside
- AcoustiSorb was provided as a superior noise absorption solution around the loading dock

Background

The Gold Coast region has become the latest target for infrastructure upgrades ahead of the Commonwealth Games, and now boasts a highly sought after neighbourhood shopping development spearheaded by Coles Group Property Developments. The new Coles Benowa Village Shopping Centre completes the major Gold Coast infrastructure changes and creates a new urban heart, including Coles along with 13 specialty stores. Coles was required by Council to provide an acoustically rated screen to shield neighbouring residents from traffic noise. In addition, there was a requirement for a custom designed acoustic solution around the Coles loading dock that operates late into the evening.

Solution

It was a combination of two different noise abatement products that provided the perfect solution. For the Ashmore Road Acceleration Lane, 190 metres of GuardianWall standing at a height of 3 metres was deemed most suitable. When incorporated with AcoustiMax75 panels, a noise reduction of 28Rw was comfortably achieved and ensured sufficient noise attenuation for neighbouring residents. A superior noise absorption solution was required for the Coles Loading Dock and ModularWalls' highest spec sound absorbing composite wall panel, AcoustiSorb, successfully succeeded all noise reduction requirements.



AcoustiMax® (GuardianWall™)



Case Study 12

NEW FARM STATE SCHOOL, QLD

Project Summary

- Solution required to shield neighbours from schoolyard noise
- GuardianWall solution with AcoustiMax75 panels were utilised
- Low maintenance solution that looked attractive and suited the surrounding area

Background

Originally built in 1901, New Farm State School is at the heart of the New Farm area and as such has a sense of responsibility to its surrounding community. The school contacted ModularWalls following complaints by neighbouring residents regarding the volume of noise being emitted from their premises. It was important that their chosen solution accentuated the unique and historical features underpinning the school, whilst also being relatively maintenance free.

Solution

ModularWalls recommended GuardianWall as the most effective solution for the school project. Offering heights up to 9m and utilising galvanised UB support columns, GuardianWall also has the benefit of offering an aesthetically pleasing finish. Measuring 35 metres long x 4.5 metres high and using the AcoustiMax75 panels, the wall successfully shielded neighbouring residents from intrusive audible noise.

The client cleverly incorporated a customised design that included painted multi-coloured panels facing the school. This also presented a unique and dynamic colour scheme that fitted in perfectly with the school and its surrounding area.



AcoustiMax® (GuardianWall™)

Case Study 13

OAKDALE INDUSTRIAL ESTATE, NSW

Project Summary

- Industrial estate development required visual and acoustic barrier to shield nearby residents from activity
- AcoustiMax75 panels utilised within GuardianWall system, with decorative strips adding architectural edge
- Custom installation behind keystone block gravity retaining wall using void forming pier liners

Background

For their new sound barrier, a brand new industrial estate in Eastern Creek chose the AcoustiMax modular wall, boasting superior sound attenuation panels, by ModularWalls.

The industrial estate development in Eastern Creek, NSW, required an acoustic barrier to protect nearby residents from the future noise generated by the estate. The client required a durable solution that offered maximum acoustic capabilities, an aesthetically-pleasing finish and compatibility with a pre-existing retaining wall.

Solution

The GuardianWall system from ModularWalls fit the client's design brief perfectly. AcoustiMax 75mm panels, universal beams and proprietary UB infills were utilised to create the noise barrier reaching 5m high and spanning almost 800m in length. The wall was installed behind the keystone block gravity retaining wall, using void forming pier liners into which the universal beam posts were installed and concreted into place.

The proprietary AcoustiMax panel achieves an Rw rating of 28, making it the ideal solution for commercial and industrial grade sound barriers. Installation is to be completed in the next 3-4 weeks, including painting, and will provide the local residents a visually appealing backdrop that ensures their peace will remain undisturbed by the new development.

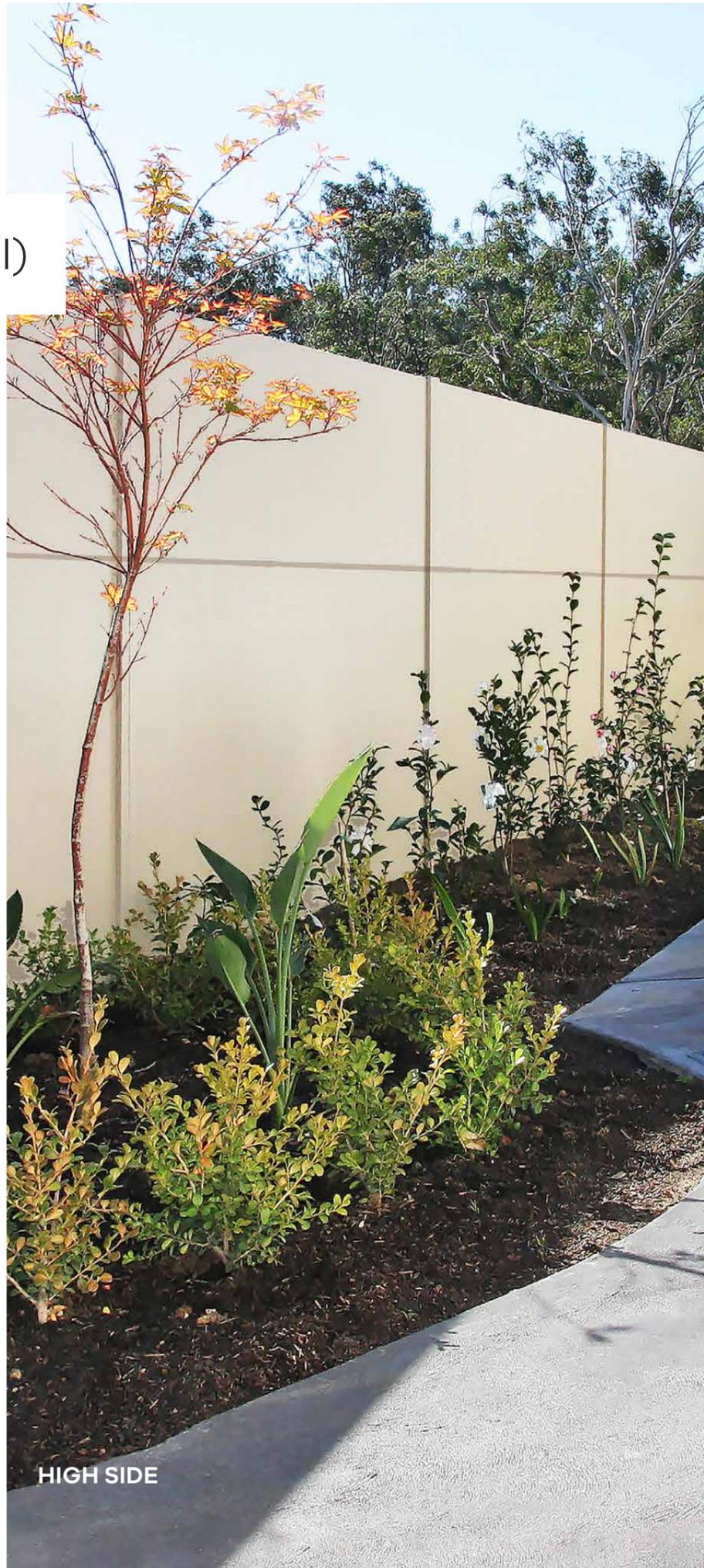




TerraFirm® (integrated retaining wall)



LOW SIDE



HIGH SIDE

Case Study 14

NEW COMMUNITY, NSW

Project Summary

- Boundary and retaining solutions required for new master-planned community
- SlimWall with integrated retaining provided to create a consistency throughout the estate
- Our solution provided the opportunity for increased interest with higher sales volumes and pricing of registered lots.

Background

The developer set out to create a new master-planned community in NSW that would offer a diverse range of home options and the very best in modern living. It was evident that many retaining walls would be required along the boundaries of new lots and these would then need to accept fencing on top.

Solution

After consultation with the developer, ModularWalls proposed to use SlimWall fencing with integrated retaining. This enabled the developer to minimise contractors and save money on the overall project cost. The solution addressed the vision to create a usually aesthetic estate by offering an integrated retaining solution within SlimWall fencing to every rear and side boundary, promoting a consistent look and feel. This gave the development a point of difference within the region and has contributed to higher pricing and faster sales velocity of registered lots.

The developer is so pleased with the solution, they have now commissioned use of the premium VogueWall for dress circle locations within the estate.



TerraFirm®X (stand-alone retaining wall)



Case Study 15

SEKISUI HOUSE, NSW

Project Summary

- Highly aesthetic retaining solution required in between blocks
- Up to 1.8m high retaining
- Support beams are designed with a fence connector to accept multiple fencing options on top of the retaining wall at a later date
- The best looking retaining wall solution on the market

Background

Sekisui house have a reputation for high quality and aesthetically pleasing solutions in everything they do. On this occasion Sekisui are developing greenfield land for individual sale as well as offering end to end house and land packages.

The blocks are built on rolling topographic conditions so it was necessary to level the ground in between individual lots. This typically varies from 500mm - 1200mm.

Solution

ModularWalls considered the aesthetic requirements as well as the imposed surcharge loadings from soil and close boundary proximity housing. The TerraFirmX retaining panel was selected as the best solution by Sekisui in consultation with its design engineers.

TerraFirmX was chosen not only due to its strength relative to other traditional concrete or timber sleeper solutions, but also due to its enhanced aesthetic appeal.

With a requirement for traditional timber fencing to be attached to the top of the retaining wall at a later date, ModularWalls designed the structural support beam with a universal fence connector.



EnduroMax®

Case Study 16

ALFORDS POINT ROAD, NSW

Project Summary

- Engaged to remove and replace 30m section of collapsed concrete noise wall
- EnduroMax solution provided aesthetic consistency and structural support of existing wall
- Challenging installation required arrangement of lane closures for night works

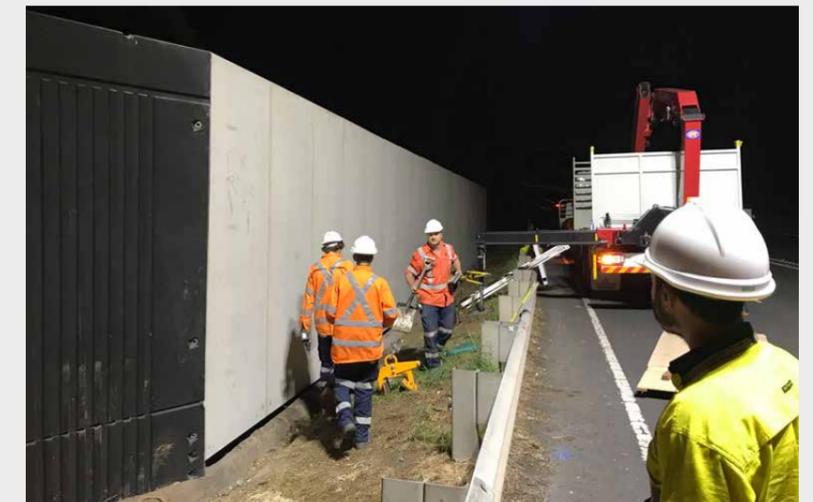
Background

ModularWalls was engaged to remove and replace a 30m section of collapsed concrete noise wall along Alfords Point Road, constructed 20 years ago. The section had fallen inwards, toward bushland, and required the development of a specific plan to cut up and remove existing concrete panels, as well as devise a replacement that could structurally support the existing wall.

Solution

An EnduroMax noise wall, reaching 3.6m high, provided the perfect solution. Following specifications from the urban designers, a customised face fix application with applied external detailing to panels offered an aesthetic blend with the existing concrete wall.

Installation proved very challenging due to restricted site access. Works during the day were restrained behind the Armco barrier, requiring the arrangement of lane closures for night works. ModularWalls' solution successfully delivered a cost-effective alternative to the reinstating of a similar concrete barrier to the one that had collapsed.





EnduroMax®

Case Study 17

CAPTAIN COOK DRIVE, CARINGBAH NSW

Project Summary

- Sound barrier required to protect local residents from increasing semi-trailer traffic
- Demanded high levels of consultation between public services and local community
- Final design showcased EnduroMax barrier with custom engineered foundations

Background

ModularWalls was approached during the design stage to design and construct a noise wall that protected local residents from the ever-increasing traffic from residential developments within Shark Park, as well as regular semi-trailer activity to Kurnell and the desalination plant.

Solution

This project demanded high levels of consultation and synergy between public services and the local community to reach the final proposed solution.

Designing custom-engineered foundation solutions around underground high-pressure gas, water and sewer services required multiple meetings with Sydney Water, Jemena Gas and ModularWalls engineers. Additional group consultations with the RMS and the local communities spanned over 2 years to ensure the proposed design was in the best interests of all parties involved.

The final design specified a 2.4m high EnduroMax noise wall, with an additional 1200mm of clear acrylic on top, allowing light to pass through whilst still blocking the traffic noise. The wall was finished with Wattyl Solagard, ensuring a highly durable, quality finish for years to come.



EnduroMax®

Case Study 18

BRUCE HIGHWAY, COOROY, QLD

Project Summary

- Noise barrier required to shield residential community along the busy Bruce Highway
- Uneven and unstable terrain added building complexities
- GuardianWall solution with EnduroMax impact resistant panels exceeded the QLD Department of Transport and Main Roads requirements (MRTS 15)

Background

This master-planned community in the Queensland town of Cooroy is situated adjacent to the Bruce Highway – the largest carrier of traffic in the Sunshine State. Its roadside location necessitated the erection of a highly effective noise barrier in order to insulate residents of the development from the constant drone of the highway. In addition to acoustic properties, the wall also had to satisfy the requirements of a civil infrastructure with impact resistant abilities. Installation itself posed a challenge given that the terrain of the development is not flat or level, and the noise barrier itself is situated on top of a sloping landscape mound.

Solution

The client opted to use the GuardianWall in combination with our EnduroMax panel to create a 300 metre long noise barrier that fully satisfies civil infrastructure requirements as well as protects residents from the traffic noise of the highway.

The EnduroMax panel, an impact resistant product which is approved by the Queensland Department of Transport and Main Roads, enhanced the durability of the wall by enabling it to better withstand any bumps or flying debris. The lightweight, modular nature of the product greatly facilitated the installation of the noise barrier, particularly given the variable terrain of the development.



EnduroMax®



Case Study 19

KALYNDA CHASE, QLD

Project Summary

- Noise wall required to shield new community development from Townsville Ring Road
- Compliance with QLD Main Road Specification MRTS15 essential
- Overcame the harsh environmental conditions of cyclonic wind region

Background

Kalynda Chase is an Urbex community development in Bohle Plains, representative of Townsville's growing population. To protect their residents from the noise of Townsville Ring Road, they required a QLD MRTS15 compliant noise wall that performed acoustically, yet still overcame the environmental conditions of high winds and floods.

Offering boutique, stylish living, with generous block sizes and 28 hectares of beautifully landscaped parks and playgrounds, the solution also needed to reflect the development's aesthetic values.

Solution

Considering its pre-approval by the Queensland Department of Transport and Main Roads, EnduroMax was the clear choice. As ModularWalls' ultra-high impact resistant, high-performance modular noise wall panel, EnduroMax approaches concrete in terms of durability, yet is far cheaper and easier to install due to its low weight and modular structure.

Reaching a maximum height of 4.9m and spanning over 700m of undulating, flood-prone land in Wind Region C, our custom engineered solution overcame the multitude of environmental challenges. Fitted within our GuardianWall modular noise wall system, the solution offered an industrial grade durability and +50 year design life, ensuring long-term project performance.

The smooth, modern finish of the EnduroMax panels also offered an elegant aesthetic to the barrier, painted in a fresh, bright white.



AcoustiSorb®

Case Study 20

WOOLWORTHS ROOFTOP ENCLOSURES, NSW

Project Summary

- Modern supermarket designs typically incorporate HVAC equipment and other plant to be located on the roof, often leading to complaints from surrounding residents.
- Challenging structural conditions often need to be addressed
- AcoustiSorb walls offer a high performance and aesthetically pleasing solution with an Rw rating of 35+

Background

Many supermarkets look to locate their air conditioning systems on the rooftop to conserve space. However, air conditioning units often lead to complaints from residents. The solution of a noise attenuation barrier had to be aesthetically pleasing, due to the supermarkets' locations in busy shopping centres encircled by suburban housing and infrastructure.

Solution

ModularWalls designed a solution that enabled an aesthetically pleasing and noise absorbing solution for multiple Woolworths rooftop air conditioning systems. Our high performing AcoustiSorb75 panels were easily situated and installed on the rooftop. The pre-finished panels meant there was no painting required following installation, and the surf mist colour achieved the design intentions. As the leading manufacturers of cost-effective acoustic and boundary walls, ModularWalls have designed wall systems that offer a solution for every challenge.



AcoustiSorb®

Case Study 21

GOODMAN FIELDER BAKERY, VIC

Project Summary

- Noise abatement solution required for busy bakery warehouse site
- A sound absorbing BarrierWall with AcoustiSorb panels was built for premium noise reduction capabilities.
- Clear Plexiglass windows incorporated to ensure safe operations

Background

The Goodman Fielder Bakery was receiving complaints from neighbouring residential property owners, exposed to the constant drone from forklifts, delivery trucks, skip bin removal and general traffic noise around the bakery's bread return area. Goodman Fielder wanted to act quickly in resolving the situation. With so much operational vehicle activity near this area, safety and clear visibility for all forklift and truck operators was paramount.

Solution

ModularWalls constructed a 70m long x 5.1m high GuardianWall with the proprietary AcoustiSorb sound absorbing panels. Each end of this wall had clear Plexiglass windows incorporated within the wall panel so that operators could safely see approaching vehicle and pedestrian traffic on the other side. The final section to be constructed was in an area that was located along the grain silo loading area and adjacent to the main bakery building. The close proximity between the two structures meant a sound absorbing solution was required. By incorporating our proprietary composite sound absorbing panel, AcoustiSorb75, these panels absorb over 90% of airborne sound, meaning there is no reverberation whilst maintaining a high transmission loss.



Case Study 22

OPERA HOUSE & HARBOUR BRIDGE

Project Summary

- Custom designed acoustic ceiling required for Joan Sutherland Theatre within Opera House
- Temporary, relocatable acoustic enclosure required for bridgeworks along Harbour Bridge
- High performing acoustics and Australian Made materials were of paramount priority

Opera House

As part of its Decade of Renewal (the largest program of OH upgrades since its open in 1973), the Joan Sutherland Theatre has recently undergone a number of upgrades, including a custom-built acoustic ceiling specified to absorb noise from backstage hoists and equipment.

The modular AcoustiSorb sound absorption panels were easily customised on site to fit around new and existing steel work. Access to the site was divided into small, rapid phases around other work schedules, allowing exceptionally tight turnaround periods to measure, manufacture and install each component of the ceiling. The lightweight panels enabled easy handling and installation some 30m above the stage, under strict working-at-heights safety procedures, as well as easy transportation of materials to the work area.

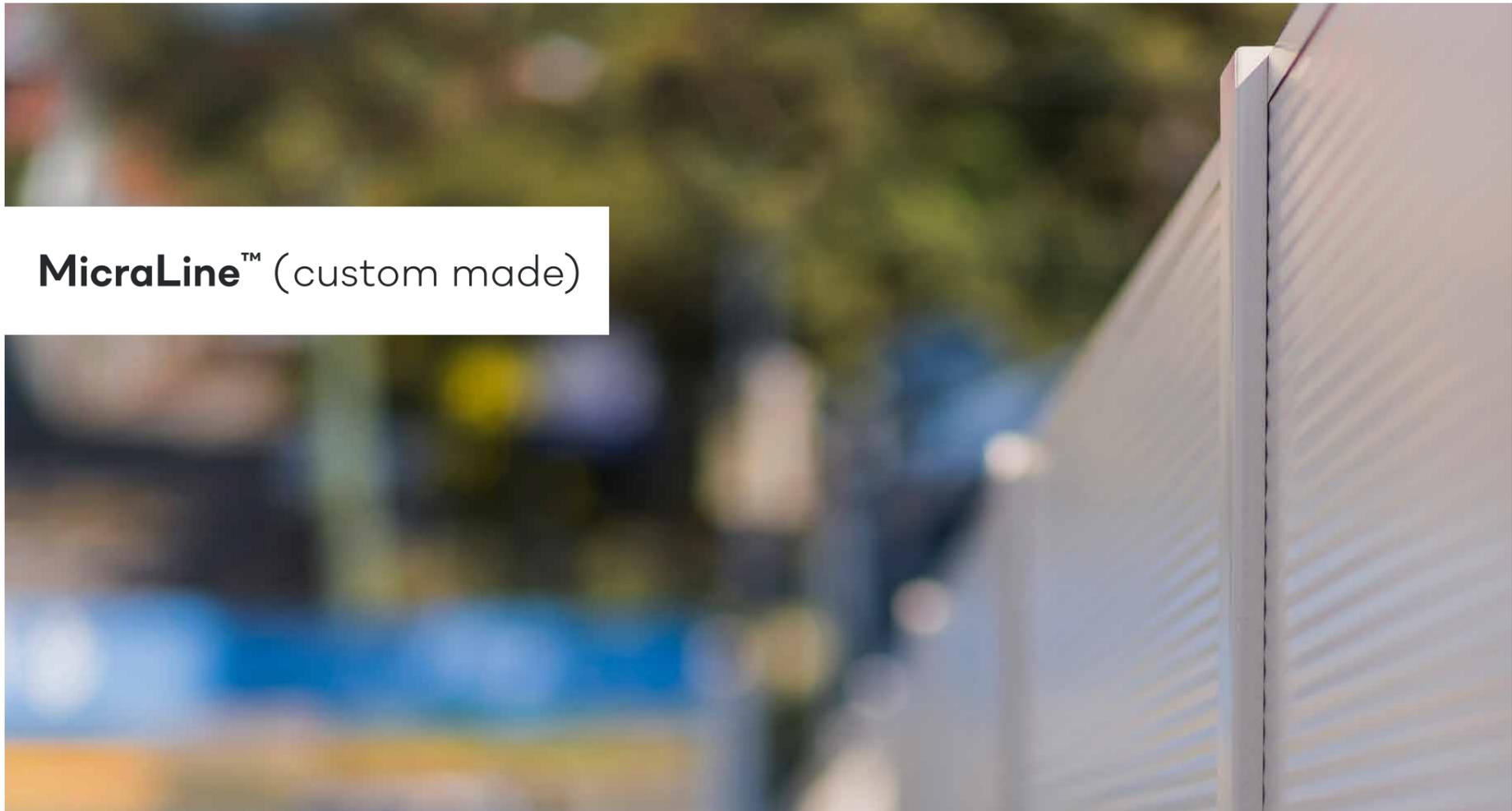
Harbour Bridge

As part of its Decade of Renewal (the largest program of OH upgrades since its open in 1973), the Joan Sutherland Theatre has recently undergone a number of upgrades, including a custom-built acoustic ceiling specified to absorb noise from backstage hoists and equipment.

The modular AcoustiSorb panels were easily customised on site to fit around new and existing steelwork. Access to the site was divided into small, rapid phases around other work schedules, requiring ModularWalls to work within an exceptionally tight turnaround period to measure, manufacture and install each component of the ceiling.

The lightweight panels enabled easy handling and installation some 30m above the stage, under strict working-at-heights safety procedures, while the modular design of the panels ensured materials could easily be transported and lifted to the work area within the confined space.

With exceptional Sound Transmission Loss performance, a Weighted Sound Reduction Index (Rw) of 31dBA and a Noise Reduction Coefficient (NRC) in excess of 0.9, AcoustiSorb will effectively absorb the noise of staging equipment and machinery, thus improving the acoustic qualities of the performance space.



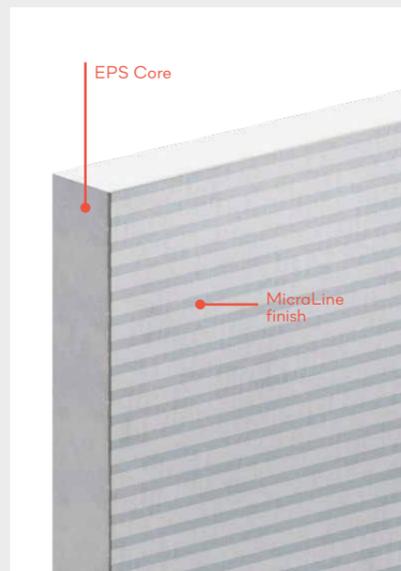
MicraLine™ (custom made)

What is MicraLine™?

MicraLine is a lightweight, pre-finished panel that is ideal for commercial applications requiring an aesthetically pleasing acoustic barrier that can be installed quickly. The composite panel has a profiled steel exterior that is pre-finished.

- **Pre-finished to a standard range of colours**
- **Lightweight**
- **Panel spans up to 4.0m**

Rw Rating	23
Density (kg/m ²)	8.45
Fire (BAL)	BAL29
Panel thick. (mm)	50 & 75 (typical)
Panel length (mm)	up to 4000
Panel width (mm)	1200
Wind Region	A, B & C



Case Study 23

LEICHARDT MARKET PLACE, NSW

Project Summary

- Extension of existing concrete barrier for superior noise attenuation
- ModularWalls conducted rigorous tests and provided custom engineered solutions to overcome site specific challenges
- Final result exceeded acoustic and aesthetic expectations

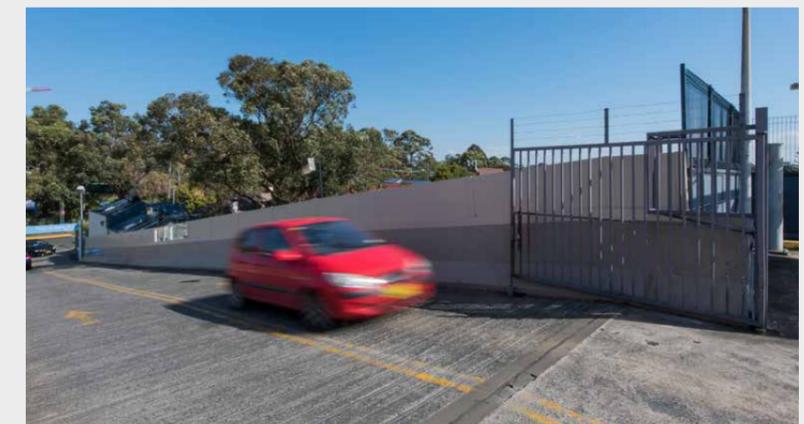
Background

Leichhardt Market Place, located in Sydney's inner-west, offers customers unlimited free parking, and is anchored by Aldi, Target, Woolworths and a 300 seat food court. To retain and attract a growing number of new customers, the shopping centre decided on a car park refurbishment. They commissioned ModularWalls to extend its existing concrete barrier wall with the aim of shielding surrounding residents from traffic and customer noise.

Solution

The existing concrete barrier required ModularWalls to scan and locate the reinforcements within the concrete barrier. This allowed the chemical anchors to be located and avoid reinforcement clashes, and enabled steel posts to be designed to suit the existing wall. The wall also required the existing light columns to be replaced with fabricated light fixings. These were powder-coated to suit the existing columns and meet strict architectural requirements.

The perspex panels were tailor-made to suit the wall dimensions, allowing the wall to perform as a noise barrier whilst allowing abundant light to flow in. To further satisfy architectural conditions, the Micraline merino panels were used for their colour and texture finish. All posts, base plates and fixings were concealed with custom made flashings that were folded at the ModularWalls factory. The customised solution ultimately exceeded acoustic and aesthetic expectations that immensely satisfied the owners.



CorroLink™ (custom made)

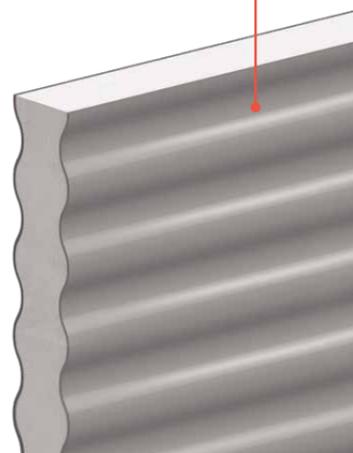
What is CorroLink™?

The CorroLink panel is a steel-exterior acoustic panel that is ideal for those commercial applications that require resilient noise walls with an imposing, heavy-duty appearance. The lightweight, pre-finished panel has a corrugated steel skin.

- Pre-finished to a standard range of colours
- Lightweight
- Highly impact resistant
- Panel spans up to 6.0m

Rw Rating	25
Density (kg/m ²)	8.70
Fire (BAL)	BAL29
Panel thick. (mm)	40 & 75 (typical)
Panel length (mm)	up to 6000
Panel width (mm)	800 typical
Wind Region	A, B, C & D

Sound waves reflect off the surface of the CorroLink™ panel, resulting in a 20dB+ reduction in audible noise on the inside of the wall (typical)



Case Study 24

QGC EXPLORATION DRILLING OPERATION, QLD

Project Summary

- Engaged by QGC to provide temporary short term (circa 10 years) noise solution for exploration drilling gas mining operations
- Required a relocatable, cyclone high wind rated solution to follow the movement of the sites
- Provided visual and acoustic relief for residents on surrounding rural farms

Background

ModularWalls was engaged to provide temporary noise walls for a QGC exploration drilling operation in central Queensland. The walls were to act as an acoustic solution as well as a visual barrier for the neighbouring rural farms. Due to its 10 year project life and movement of operation sites, the clients specified a relocatable, temporary solution that was still suitable for a cyclonic wind region.

Solution

The final solution was a custom engineered, relocatable CorroLink acoustic enclosure, measuring 4.2m high, that followed the movement of the drilling sites. During high wind forecasts, the walls were ratcheted to the ground at their resting height of 2.1m. It was prefinished with a pale eucalypt colour to harmonise with the surrounding environment and due to its lightweight nature, the entire material order was delivered on a single semi-trailer.





ThermaMax™ (custom made)

Case Study 25

APLNG GAS FLARE ENCLOSURE, CENTRAL QLD

Project Summary

- Custom solution required to enclose and shield horizontal flare outlets for APLNG
- Wall had to withstand flare temperatures up to 200°C
- ModularWalls created the 'ThermaMax' panel to meet the specific requirements of the project

Background

To design and construct 15 flare enclosures for APLNG, a multi-million-dollar gas extraction project for principle Origin Energy. ModularWalls, in collaboration with contractors Laing O'Rourke and Monadelphous, worked to provide an alternate design for a specified, complex solution that required large footings and cumbersome construction methodology. The structure was to exceed thermal requirements of withstanding flares of up to 200°C during burn off operations, with a minimum design life of 20 years. The ultimate goal was to save the principle and contractor time and costs, and provide a safe solution, without compromising performance.

Solution

When faced with this unique challenge, ModularWalls discovered there were no products that currently matched these specific requirements – so we created one. ThermaMax, a thermal heat control panel, was designed with modular building methodology, resulting in swift installation for each flare enclosure.

Flare perimeters measured 70x70 metres square and up to 12 metres high. The newly designed ThermaMax panels were used in conjunction with universal beams and constructed off a base-plated configuration, as well as custom-made 4 metre commercial gates. The wall has a design life of 50 years – more than doubling the original requirement. ModularWalls saved the client over 40% in costs, halved the installation period, improved environmental and safety factors by taking 1100 trucks off the road and achieved a superior aesthetic, all without compromising thermal performance.



Warwick Farm Racecourse - NSW





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