Enterprise Data
Baulkham Hills, NSW

Acoustic Solutions for Commercial Air-Conditioning Units

Challenge

Enterprise Data, a national data storage company, utilises large air conditioning (AC) units which run 24 hours a day in order to maintain their temperature controlled rooms at a constant level. With imminent expansion of their business, Enterprise Data required approval from the local council to install additional AC units at their premises. The council identified that these AC units were causing disturbance to the nearby residents especially during night time operating hours, and accordingly enforced an order that the company must mitigate noise levels from these units or risk being shut down.

Solution

Modular Wall Systems reviewed the acoustic assessment and noted that due to close proximity of hard surfaces, reflective barriers were not suitable for the challenging requirements of this project. Hence, our leading-edge sound absorbing wall, AcoustiSorb™, was identified as the best fit. This design comfortably exceeded the council requirements. The full system was then constructed and painted onsite in less than 2 days. In total, the wall was built 42m long and 3.9m high and achieved an NRC (Noise Reduction Coefficient) of 0.95 and an RW (Weighted Sound Reduction Index) of 28.

Modular Wall systems

Industry Leader in Innovative and Cost-Effective Acoustic and Boundary Walls

- Proven acoustic performance
- Cost effective
- Durable, light weight modular construction
- Quick and easy installation
- Suited to environmentally harsh and remote locations
- Good green efficiency rating

ISO 9001

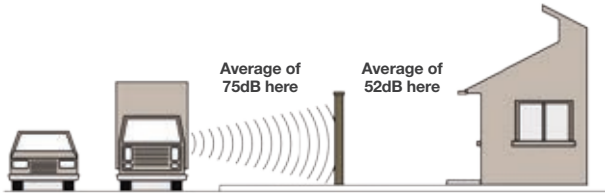
CARBON OFFSET COMPANY

NATIONAL ACOUSTIC LABORATORIES LISTED

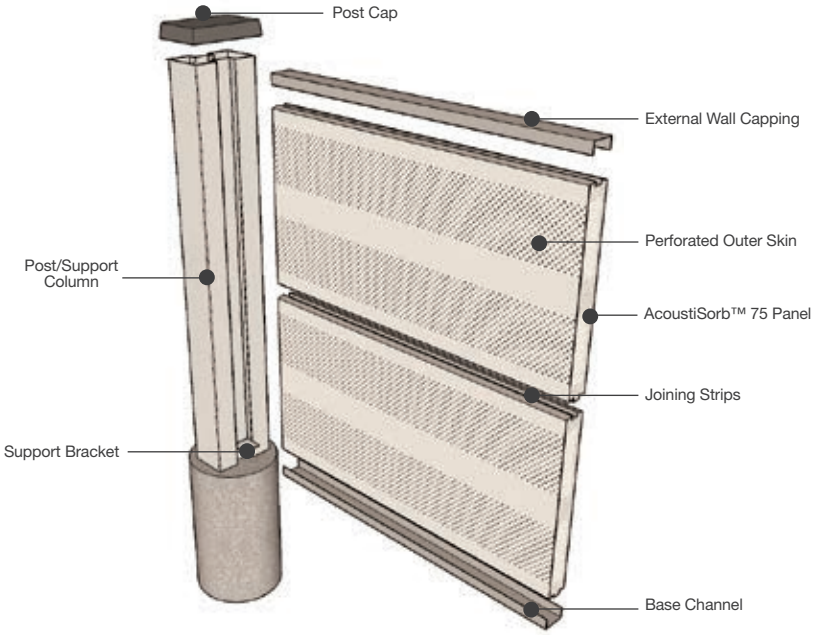
Call us on **1300 556 957** or visit **www.modularwalls.com.au**

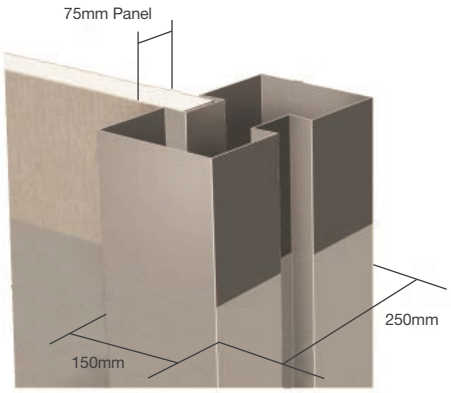
Acoustic Qualities

All Modular Wall Systems products have acoustic properties and are National Acoustic Lab tested and rated with reflective panels achieving a **20+ dBA** improvement and absorption panels exceeding a **Noise Reduction Coefficient (NRC) of 0.9.**



BarrierWall Construction





BarrierWall Support Column

Footing Depth Table

Wall Height	Hole Depth into firm earth or clay		Hole Depth into sand, soft clay or loose earth		Hole Diameter
	Wind Region A & B	C	Wind Region A & B	C	
3000mm	1000mm	You will need engineering advice beyond the scope of this publication. Please contact our team directly for this information.	1000mm	You will need engineering advice beyond the scope of this publication. Please contact our team directly for this information.	For all wind regions the post hole diameter shall be 450-600mm (unreinforced). Actual size will be specified depending upon indivdual site conditions and wall height.
3300mm	1100mm		1100mm		
3600mm	1200mm		1200mm		
3900mm	1300mm		1300mm		
4200mm	1400mm		1400mm		
4500mm	1500mm		1500mm		
4500mm +	Contact Modular Wall Systems for specific advice				

Note: The free ends of your wall may need to be shortened or strengthened depending on your site specific specifications including wall height, terrain category, shielding glass, wind region and soil conditions. The plan for your wall layout (if generated by Modular Wall Systems) will specify any of these requirements.
1. Grade of concrete N32 with a mass aggregate size of 20mm.
2. Concrete shall be compacted after placement by means of roding or vibrating.

'Post Centre to Post Centre' guide

BarrierWall 75 AcoustiSorb™	
PANEL SIZE	POST CENTRES
2400mm	2500mm
2700mm	2800mm
3000mm	3100mm (Not available for regions of Australia)