



### About Hebel® Soundbarrier

Hebel Soundbarrier is a highly effective acoustic barrier system that produces significant reductions in noise levels from industry, freeways and rail corridors.

The standard system consists of galvanised steel columns in concrete pier foundations. Hebel Soundbarrier caged reinforced panels are placed horizontally between or against these columns and are held in place by galvanised steel angles or plates. Key benefits for the use of Hebel Soundbarrier include a high level of design versatility, cost effectiveness, proven performance and quick to supply.

**CSR Hebel® Soundbarrier is a cost-effective noise barrier system that delivers design flexibility and high acoustic properties.**

#### Project Name and Location

Sydney's Hills M2 Motorway Upgrade

#### Client

Roads and Maritime Services

#### Owner/Operator

Transurban/Hills M2

#### Construction

Leighton Contractors Pty Ltd

#### Urban Design

HBO+EMTB

#### Landscape Design

Tract Consultants

# PROJECT SCOPE:

The Hills M2 Motorway, a key part of the Sydney Orbital Network, connects the north-western suburbs with the north shore and CBD. The M2 Motorway Upgrade is a \$550 million project to widen the road and increase access to this vital corridor. The project will include decorative, yet functional, sound barriers to improve the road's visual appearance whilst reducing noise for nearby residents.



## Products and Applications:

Hebel®, a highly effective acoustic panel made from autoclaved aerated concrete, was specified for the original noise walls when the motorway was constructed over a decade ago. As a result of the upgrade, 31,000m<sup>2</sup> of Hebel Soundbarrier was again specified for the new noise walls. Being lightweight, yet strong and solid, Hebel Soundbarrier offers design flexibility, fast construction and superior acoustic performance.

## Challenges/ Requirements:

The need to create character and a recognisable identity for the motorway by integrating the new and existing elements was a key deliverable for the urban design brief, in addition to achieving acoustic targets.

Hebel Soundbarrier offered the designer an attractive and functional panel, with an unlimited choice of colours and patterns to provide a visual contrast to the road's existing green walls. The colours used on the new panels draw their inspiration from the subtle greens, oranges and greys found in the bushland adjacent to the M2 corridor. Their sophisticated geometric pattern subtly reflects the traffic flow and direction.

The Hebel panels also provided an acoustic performance of Rw41, which far exceeded the specified RMS R271 requirements.

## Results:

Hebel Soundbarrier performed a pivotal role in bringing the motorway's character to life. The Soundbarrier panels ensured a recognisable identity, provided decorative relief and visual interest for motorists, offered enhanced acoustics and strong environmental credentials.

The new noise walls features three different Soundbarrier designs. The walls used in the bushland areas were different to those used in the urban precincts, to reveal the changing environment to the motorist.

## About CSR Hebel

For more information on CSR Hebel, please call 1300 369 448 or visit [www.hebelaustralia.com.au](http://www.hebelaustralia.com.au)

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- **Basic Walls** – horizontal emphasis is created by the joints. The deep charcoal grey colour helps the walls to recede into the background.
- **Patterned Walls** – feature a random horizontal stripe. The wall is a stunning orange on the motorway side and a grey or charcoal on the other side.
- **Staggered Walls** – panels staggered around support posts create an interesting and dynamic pattern of light and shade.

Hebel also ensured minimal environmental impact during the upgrade. Almost two-thirds (over 2000m<sup>3</sup>) of the original Hebel panels were removed and reused throughout the local community to create agricultural sheds and large stables, resulting in a negative carbon footprint.

## Testimonial:

Megan Walker, Associate Director of HBO+EMTB (the urban designer commissioned for the project) says,

"Hebel Soundbarrier is an ideal choice for the project. The horizontal pattern creates a restrained but dynamic effect and successfully disguises the actual panel joints. The colour has a great impact and the Dulux Acratex paint system helps conceal the filled rebates and joints. The Soundbarrier system is a cost effective solution that creates a unique identity for the Hills M2 Motorway, with panels that are easy to handle on and off site."

**hebel**®  
The better way to build

