



Australian Government

INFORMATION SHEET – NOISE DESIGN AND TREATMENT

Albury Wodonga Hume Freeway – Ettamogah to Murray River

May 2006

The Albury Wodonga Hume Freeway will link the Hume Freeway at Wodonga with the present Hume Highway at Ettamogah, north of Albury.

Abigroup has been contracted to design and construct the freeway. Major construction commenced in June 2005 with the freeway scheduled to open to traffic in mid 2007.

The Roads and Traffic Authority (RTA) is managing the project in NSW. This section is fully funded by the Australian Government.

Freeway aesthetics and traffic noise is a significant issue for the community, particularly in residential areas. Abigroup is committed to working with the RTA to minimise the impact of the freeway on the local community.

What's noise design and mitigation all about?

The overall design of the Albury Wodonga Hume Freeway – Ettamogah to Murray River – works to lessen negative impacts and assists in meeting noise targets. Roadside treatment takes the form of noise walls and landscaped mounds with changes in level used to improve traffic noise and limit the extent of noise walls. A combination of noise walls plus architectural treatment of noise affected buildings will occur in some areas while low-noise pavements to reduce traffic noise levels south of Corrys Hill will also be used.

How does traffic noise modelling work?

Traffic noise monitoring has been carried out by qualified and experienced acoustic practitioners to provide a more accurate determination of noise mitigation (treatment) requirements. The results have been modelled to predict future noise levels and to verify and identify variations with current noise modelling predictions.

Traffic noise modelling assesses inputs (current noise levels) and then determines outputs (future noise levels).

Inputs consider existing traffic noise levels assessed and take into account the most recent data on traffic volumes, composition and vehicle speeds

along with topography and landforms and road design geometry.

Outputs include the design of the roadway with modelling on a finer scale than previously undertaken. This modelling includes:

- A precise assessment of road traffic noise impacts.
- Predicted noise levels from the freeway traffic after opening in 2007 (called operational noise).
- Predicted noise levels from the freeway 10 years after opening (2017).

How do you design ways to reduce noise?

A number of factors are considered in the design of noise mitigation measures.

Noise monitoring and traffic counts measure existing noise levels and then computer noise modelling using existing noise levels is used to predict future noise levels to enable the design of acoustic treatments.

Why is the detailed design of noise mitigation (treatment) necessary?

The scale and extent of noise barriers, including accurate heights and locations can be established. This design work identifies buildings that are most suited to individual treatment.

What kinds of noise mitigation measures are being considered?

In brief, the two ways in which noise can be reduced are:

- Roadside noise mitigation including low noise pavement and noise barriers (ie, noise walls and/or earth mounds).
- Individual treatment to dwellings and other noise-sensitive buildings
 - in combination with a roadside noise barrier
 - where a roadside noise barrier is not reasonable or feasible
 - where more cost-effective.

What will the walls look like?

Noise walls will be a combination of cream and charcoal grey panels.

The cream panels have a small crushed basalt texture imprinted into the concrete inspired by the adjoining rail corridor while the charcoal grey panels have the look of granite (the local natural stone).

All walls will be treated with anti-graffiti coating.

Samples of materials, textures and colours can be seen at the community display centre.

Why are there noise walls in some areas along the freeway but not near my property?

Locations are determined by noise modelling. Some areas have other noise mitigation measures such as earth mounds and different pavement types or individual building treatment.

What is the process for treating individual buildings?

Residences will be treated in rural or semi-rural areas where buildings are well spaced and individual treatment is more cost-effective than installing noise barriers.

The eligibility for building treatment is based on the predicted external noise and internal target criteria set by the Department of Environment and Conservation guidelines as well as:

- The identification of properties eligible for treatment by acoustic consultant.
- Consultations with property owners.

Are noise levels checked after the freeway opens to traffic?

Noise assessments will be conducted after the freeway opens to traffic to record the actual level of noise being experienced. These checks assess the accuracy of noise predictions, the effectiveness of the noise-reducing measures adopted, and the need to implement further noise-reducing measures.

Are there guidelines for traffic noise mitigation measures?

In New South Wales, the guidelines for road traffic noise are documented in the *Environmental Criteria for Road Traffic Noise* (NSW Environment Protection Authority, 1999). The guidelines cover the positioning, heights and lengths of noise walls and the day and night 'base' noise criteria that projects must address.

The RTA's *Environmental Noise Management Manual* also provides guidance on assessing and managing noise and vibration from road construction and operation. The manual assists with designing the optimum noise mitigation measures for a project based on performance, cost and efficiency.

What about construction noise and vibration?

Construction noise and vibration limits are set by the Department of Environment and Conservation guidelines. Abigroup has prepared a management plan for noise during construction based on impact assessments and a model of potential construction noise and vibration levels. The document includes a plan for noise and vibration controls and measures including community liaison and regular monitoring.

What happens now?

Abigroup will commence consultation with directly affected residents.

Where can I get more information?

For more information on the project:
Phone toll free 1800 674 934
Email albury@abigroup.com.au
Log on to www.rta.nsw.gov.au/albury or
www.auslink.gov.au/projects/natnet/NSW/cnnh066.aspx
Visit the Community Display Centre on Dallinger Road, Monday to Friday from 9am to 5pm (excluding public holidays).



Building our National Transport Future



Abigroup Contractors Pty Limited

ABN 40 000 201 516

A member of Abigroup Limited