

Madora Bay



Stage 16B

Acoustic (Quiet House Design) Guidelines

To reduce traffic noise experienced in houses close to Mandurah Road, and to comply with State Planning requirements (SPP5.4), dwellings built on the lots identified on the attached plan must comply with "Quiet House" design requirements. The requirements vary slightly for different lots, and for different storeys, as shown on the plan.

Table 1 below shows standard requirements for each lot. Alternative treatments may be suitable, but would need to be checked and endorsed by an acoustical consultant to ensure compliance with the following noise levels:

Living and working areas
 Bedrooms
 L_{Aeq(Night)} of 40 dB (A)
 L_{Aeq(Night)} of 35 dB (A)

TABLE 1: Standard Design Requirements

Area Type	Orientation	Package A (blue)	Package B (red)
Bedrooms	Facing Mandurah Road	Package A (blue) Casement or awning windows with 6.38mm laminated glass. Eaves enclosed with 6mm compressed fibre cement board. No vents to outside walls / eaves. External doors to have acoustic seals.	Package B (red) Casement or awning windows with 10.38mm or 6.5mm laminated glass. Eaves enclosed with 6mm compressed fibre cement board. No vents to outside walls / eaves. No sliding doors to
	Side on to Mandurah Road	Casement or awning windows with 6.38mm laminated glass. Eaves enclosed with 6mm compressed fibre cement board. No vents to outside walls / eaves.	outside. Casement or awning windows with 6.38mm laminated glass. Eaves enclosed with 6mm compressed fibre cement board. No vents to outside walls / eaves.
	Away from Mandurah Road	No requirements	No requirements
Living and Work (study) Areas	Facing Mandurah Road	Casement or awning windows with 6.38mm laminated glass. Eaves enclosed with 6mm compressed fibre cement board.	Casement or awning windows with 6.38mm laminated glass. Eaves enclosed with 6mm compressed fibre cement board.

		No vents to outside walls / eaves. External doors to have acoustic seals.	No vents to outside walls / eaves. Sliding doors to be fitted with acoustic seals and have overlapping meeting stiles. Front door to be 40mm solid core or timber external doors.
	Side on to Mandurah	Casement or awning	Casement or awning
	Road	windows with 6mm glass.	windows with 6.38mm laminated glass.
		Eaves enclosed with	Eaves enclosed with
		6mm compressed fibre	6mm compressed fibre
		cement board.	cement board.
		No vents to outside	No vents to outside
		walls / eaves.	walls / eaves.
	Away from Mandurah Road	No requirements	No requirements
Other indoor areas	Any orientation	No requirements	No requirements

Wherever possible, house designs should try to achieve a maximum noise level of L $_{Aeq(Night)}$ of 50 dB (A) in at least one outdoor living area so that residents have a suitable outdoor area to enjoy. This is normally most easily achieved by locating the living area away from the noise source (ie Mandurah Road) and separating it from the road by part or all of the house (eg wrapping the house around an alfresco area, or placing the living area on the west side of the house).



