

Car Stacker Noise Information Sheet



Merri-bek
City Council

Car stackers are used in many high and medium rise apartment buildings in the inner city. In apartment buildings of this scale, car stackers are commonly located below ground level, which dampens noise and vibration. It is generally accepted car stackers are unlikely to present a noise issue to neighbours if they are located in an underground carpark.

There is an emerging interest in using car stackers in low rise apartment buildings, sometimes located at ground level. In this situation the permit applicant should demonstrate that the car stackers would not impose undue noise on neighbours.

Car parking requirements are set out in Clause 52.06 of the Merri-bek Planning Scheme. This clause specifies the number of car parking spaces required and design standards for car parking.

Clause 52.06 states:

'Accommodating cars in stackers can be an appropriate way to provide car parking where space is limited.'

Design standard 4 - Mechanical parking states:

'Mechanical parking may be used to meet the car parking requirement provided:

- At least 25 per cent of the mechanical car parking spaces can accommodate a vehicle clearance height of at least 1.8 metres.
- Car parking spaces that require the operation of the system are not allocated to visitors unless used in a valet parking situation.
- The design and operation is to the satisfaction of the responsible authority.'

Objective

To ensure that car stackers do not cause an unreasonable noise nuisance to residents on adjoining properties.

Noise reduction measures

Sound insulation of car stackers is a combination of the sound protection features of the stacker and the

sound insulation of the building. Common noise reduction measures used in the design of a car stacker in a residential environment include:

- Sourcing a quiet car stacker
- Adding a sound protection package for the selected stacker
- Fully or partially enclosing the car park
- Walls adjacent to the stacker to be of solid construction
- Hard surface areas inside of the car park with sound absorption properties
- High solid boundary fences.

Not all attenuation measures will be required in all circumstances. Select measures should be used in combination to demonstrate that the car stacker will not cause unreasonable noise.

Noise standards

A number of assessment tools are used by Acoustic Consultants in their assessment of noise from car stackers. Relevant standards include:

- Section 48A of the *Environmental Protection Act 1970*
- *Environmental Protection (Residential Noise) Regulations 2008*
- *State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade) (SEPP N1)*
- Australian Standard AS2107:2000 (Acoustics – Recommended Design Sound Levels and Reverberation Times for Building Interiors)

Finding an acoustic consultant

Association of Australian Acoustical Consultants www.aaac.org.au

Australian Acoustical Society
www.acoustics.asn.au

Merri-bek Language Link

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