Assessing noise in development projects

**Purpose**

The purpose of this fact sheet is to assist proponents to understand noise in the context of the development assessment process.

It is produced by the Investment Team of the Department of Planning, Transport and Infrastructure (DPTI), which offers a pre-lodgement service. The team can be contacted by emailing dpti.pdprelodgementenquiries@sa.gov.au or calling (08) 7109 7081.

**Why is noise assessed in development projects?**

Due to the mixed nature of Adelaide City, the Inner Metropolitan Adelaide urban corridors and the Port Adelaide centre, noise management will often be relevant to their development application process. The design outcomes of a project can be considerably influenced by noise and therefore careful consideration of noise impacts during design development is essential.

A noise assessment by a qualified Acoustic Engineer will typically be required to accompany your development application. Your Case Manager will be able to advise you whether a noise report will be required for your project.

**Noise in the Adelaide City Development Plan**

The Adelaide City Development Plan (Development Plan) contains a range of provisions aimed at minimising unreasonable noise and its impact on amenity. The development plan seeks to minimise noise conflict by:

- Defining allowable noise emissions from new noise generating developments.
- Defining the operating hours, use and location of plant and equipment such as air conditioning, compressors and exhaust fans.
- Setting out noise attenuation measures required for noise sensitive development (i.e., residential, health care, aged care and education) to achieve noise criteria such as sleep disturbance criteria,
- internal design sound level criteria and music criteria.
- Ensuring noise levels generated within new developments are acceptable and maintain the amenity of those living within the City.
- Providing guidelines on maximum allowable music noise levels from an entertainment premise.

**Noise Generating Development**

The development plan contains provisions reinforcing the need to manage the noise levels generated by a development. The council wide section of the development plan contains specific noise provisions, with a particular emphasis on the following noise generators:

- Licensed premises (music and people noise)
- Air-conditioning, mechanical plant and equipment
- Deliveries, collection, movement of private waste bins, goods, empty bottles and the like
- Car park activity (including vehicles being started, doors closing and vehicles moving)

**Noise Sensitive Development**

The development plan also contains provisions reinforcing the need to manage the amenity of
noise-sensitive development. Noise-sensitive development includes residential living and hotel accommodation, hospitals, aged care facilities and child care services.

Protecting noise-sensitive development is called up by the development plan therefore relevant during the planning assessment. It involves managing building design outcomes to minimise the effects of environmental noise on the occupants of adjoining sites as well as future occupants within a proposed building.

The development plan recommends that the following policy guidelines are taken into consideration for noise-sensitive developments:

- World Health Organisation Guidelines for Community Noise
- Australian/New Zealand Standard for Recommended Design Sound Levels and Reverberation Times for Building Interiors
- The Building Code of Australia (Although this assessment occurs later)

These policy guidelines are aimed at protecting intended/existing building occupants from unreasonable amenity impacts arising as a direct result of noise.

Noise in the Port Adelaide and Inner Metropolitan Development Plans

The Noise and Air Emissions Overlay (the Overlay) applies within the Urban Corridor Zone and District Centre (Norwood) Zone of the Inner Metropolitan Council Areas, and the Port Adelaide Regional Centre Zone. The Overlay contains planning policies to protect noise and air quality sensitive development from noise and air emissions generated from major transport corridors (road and rail) and mixed land uses. Noise and air quality sensitive development includes residential dwellings, nursing homes, educational institutions, hospitals, places of worship and caravan parks accommodating long-term residential use.

Noise and air quality is linked together in this Overlay as many of the policies are useful for reducing both the impacts of noise and air emissions by—for example—locating private and communal open space at the rear of buildings, away from emission sources.

This Overlay also designates where the Minister’s Specification SA 78B for the Construction Requirements for the Control of External Sound applies (see below information regarding Minister’s Specification).

The Building Code of Australia

The noise provisions of the building code are additional to those in development plans.

While the development plan is generally concerned with managing environmental noise and noise generating development, the building code is primarily concerned with the acoustic performance within a building, and the construction methods required achieving appropriate noise attenuation, particularly for residential occupancy (other than where the Minister’s Specification applies, see below).

The building code aims to safeguard building occupants from loss of amenity as a result of unreasonable noise transmission and contains acoustic performance criteria which are required to be met in order to obtain a building rules consent.

While internal noise transmission is a building code matter, consideration of building layout and acoustic separation in the planning stages is advantageous, and encouraged to avoid the
Minister’s Specification for External Noise

Minister’s Specifications address particular building issues that require attention in South Australia. They are called up under the Development Act 1993 by the minister responsible for planning and development.

The Minister’s Specification SA 8 is a new construction requirement intended to protect the occupants of certain types of residential buildings from the impact of existing and future sound from major roads, rail lines and mixed land-use sources.

It applies to new residential buildings and additions to existing residential buildings (Class 1, 2, 3 and 4 buildings and 9c aged care buildings as defined in the Building Code of Australia) to be constructed in South Australia.

The Minister’s Specification is called up through the Noise and Emissions Overlay within the relevant Development Plan.

The Minister’s Specification comprises:

- **Performance criteria**
  
  The acceptable internal noise standard—for Building Code of Australia class 1, 2, 3, 4 and 9c aged care buildings

- **Deemed-to-satisfy requirements**
  
  Such as window glazing, solid doors and seals, wall and ceiling insulation, alternative ventilation if necessary—based on the noise exposure at the building façade

- **Alternative solution**
  
  An acoustic consultant report can be prepared to demonstrate compliance with the performance requirement—allowing flexible design solutions to be adopted.

The level of treatment that is required at the building façade will depend on the noise exposure, which can be determined knowing the separation distance from the building to the noise source.

**Conditions of Approval**

Conditions may be imposed on a planning or building rules consent to manage noise. Such conditions may vary considerably from one development to the next, and will be based on the individual circumstances of a proposal. Conditions may be imposed to limit noise to acceptable limits, or to reduce noise at certain times.

Where a condition relating to noise management is imposed on a planning consent or development approval, that condition is binding and enforceable. It is therefore necessary that you ensure noise details supplied during your application process are accurate.

**Further Matters for Consideration**

- **Australian/New Zealand Standards**
  
  Reinforcing the strength of its noise provisions, the Development Plan makes reference to Australian/New Zealand Standards for the management of various noise sources. Such standards are more aligned to managing the noise source, although, they do offer some guidance as to the implementation of noise attenuating measures to minimise existing noise impacts.
• **The Environment Protection Act**

The Environment Protection (Noise) Policy, under the Environment Protection Act is a technical policy document often considered for applications referred to the EPA during planning assessment. There may be occasions where the EPA, as a referral body, has scope to request that certain activities be managed in accordance with the Environment Protection (Noise) Policy. This policy is used by Acoustic Engineers as a benchmark for noise assessments for planning applications.

• **Liquor Licensing**

If licensed premises are proposed as part of your development, noise will be a relevant consideration. In particular, noise will be a relevant consideration particularly for licensed venues which involve entertainment and music. Noise is regularly a reason for objection during the liquor licensing application process. In this regard, it is important that evidence can be provided to demonstrate noise can be managed appropriately.

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**For further information**

Adelaide City Council has a number of Information Guides relating to technical matters relating to ‘Noise’. You can find these at:

[www.adelaidecitycouncil.com/environment/noise/resources3/](http://www.adelaidecitycouncil.com/environment/noise/resources3/)

You can download a pre-lodgement pack from [www.dpti.sa.gov.au/planning/prelodgementservice](http://www.dpti.sa.gov.au/planning/prelodgementservice) or ask the Department to mail it to you. To discuss your needs, phone or email:

Investment Team  
Department of Planning, Transport and Infrastructure  
Level 5, Roma Mitchell House  
136 North Terrace, Adelaide

Call: (08) 7109 7081  
Email: dpti.pdprelodgementenquiries@sa.gov.au