

# Factsheet: Main Roads Requirements for Road Traffic Noise Assessments

Assessing compliance with State Planning Policy 5.4

This Factsheet summarises what Main Roads assesses when reviewing a road traffic acoustic assessment and Noise Management Plan for compliance with the *State Planning Policy 5.4 Road and Rail Noise*<sup>1</sup>. It is aimed at acoustic consultants and developers.



## State Planning Policy 5.4

*State Planning Policy 5.4 Road and Rail Noise 2019* (SPP 5.4) promotes mutually compatible land use and transport by road and rail. The objectives of the Policy include protecting the community from unreasonable levels of transport noise and protecting the state's major transport corridors from incompatible urban encroachment.

SPP 5.4 is supported by the *Road and Rail Noise Guidelines* (Guidelines), which provides information on how to implement the Policy.

Main Roads Western Australia (Main Roads) provides advice on applications for proposed noise sensitive developments within the Policy's trigger distance of our network. When such applications include a supporting site-specific noise assessment or Noise Management Plan, Environment Branch provides a technical review of the assessment and the proposed mitigation measures. Please allow ten business days for the technical review.

The minimum standards that Main Roads expects from acoustic assessments and Noise Management Plans are listed in Table 1.

A list of Main Roads key contacts are listed in Table 2.

<sup>1</sup> As of September 2019, this Policy replaces the previous *SPP 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning* (2009).

**Table 1. Main Roads Minimum Standards for Acoustic Assessments and Noise Management Plans**

ITEM	DESCRIPTION
<b>Noise Management Plans</b>	<p>Prepared in accordance with the SPP 5.4 Road and Rail Noise Guidelines. Appendix 4 provides a recommended template for the content of a Noise Management Plan.</p> <p><b>Note:</b> SPP 5.4 Noise Management Plans differ from those submitted by Main Roads for construction noise, which are regulated by the <i>Environmental Protection (Noise) Regulations 1997</i> and with different requirements.</p>
<b>Onsite Noise Monitoring</b>	<p>Noise measurements to quantify existing noise levels are required if the road already exists. For major roads, A minimum of three valid 24 hour weekday periods is required as per Appendix 1 of the Guidelines.</p> <p>The following details must be provided:</p> <ul style="list-style-type: none"> <li>• Dates and duration of the monitoring conducted;</li> <li>• Location of where the noise monitoring was conducted in relation to the road;</li> <li>• Noise monitoring results shown as <math>L_{Aeq, Day}</math> and <math>L_{Aeq, Night}</math>.</li> <li>• Critical time for compliance – is day (&gt;5 dB difference) or night (&lt;5 dB difference) noise the critical time.</li> </ul> <p><b>Note:</b> noise monitoring must be conducted within 2 years, unless justification is provided in the report. Noise measurements during school days, public holidays or weekends are not to be used for road traffic.</p>
<b>Traffic Count Data and Traffic Projections Obtained from Main Roads</b>	<p>Contact the Main Roads' Asset and Geospatial Information (AGI) Branch to obtain current traffic data. Traffic count data is also freely available via Main Roads Traffic Map webpage at <a href="https://trafficmap.mainroads.wa.gov.au/">https://trafficmap.mainroads.wa.gov.au/</a>. The report should state the date that data was obtained to ensure that the most recent data is used and the location or site reference number.</p> <p>Section 4.2 of SPP 5.4 stipulates that a 20-year planning horizon must be considered from when the noise assessment is undertaken. Therefore, modelling must consider current and future vehicles per day and % heavy vehicles data.</p> <p>Contact Main Roads' Transport Modelling Section (refer to Table 2) to obtain the most up-to-date Main Roads traffic projections. You will receive a job reference number associated with your request for traffic projections. Cite the job reference number and date in your report. If traffic projections are not available for your area of interest, you will need to apply another methodology to determine the future traffic volumes. You will need to provide details of this methodology to the Transport Modelling Section's for their consideration, which must also be discussed in your report.</p> <p><b>Note:</b> noise data must be current within 2 years, unless traffic forecasts have not changed or justification is provided in the report.</p>
<b>Road Design</b>	<p>Check with the relevant Main Roads region:</p> <ul style="list-style-type: none"> <li>• whether future road development or re-development is planned e.g. additional lane, changed alignment, grade separation. Include this in modelling of future noise;</li> <li>• what the current road surface is and whether this is proposed to change (acoustic consultants should be modelling for 14mm chip seal road surface, unless Main Roads has advised us otherwise);</li> <li>• what the current speed limit is and whether it is proposed to change.</li> </ul>
<b>Modelling</b>	<p>Input data included in the modelling must be discussed (e.g., topography, road design, traffic volumes, road surface, and traffic speed). The report should also state any corrections used and assumptions made. The modelling should focus on the critical time for compliance determined by the monitoring.</p>

ITEM	DESCRIPTION
<b>Future Predicted Noise Levels</b>	Present predicted noise levels throughout the proposed development preferably as “noise level contours”. Show predicted noise levels with and without proposed mitigation (e.g. noise barriers) to assist in visualising the performance of various treatments.
<b>Indoor Living Areas</b>	The development should be designed to achieve the indoor noise level target in noise sensitive areas (e.g. bedrooms and living rooms of houses, and school classrooms).
<b>Outdoor Living Areas</b>	At least one outdoor living area per residential lot should achieve the noise target. Noise levels above the outdoor noise target on any part of the lot will not be acceptable to Main Roads unless reasonable mitigation measures have been included in the proposal in an effort to achieve the noise target or a reasonable degree of acoustic amenity.  For non-residential noise-sensitive developments (e.g. schools and childcare centres), the design of outdoor areas must take into consideration the noise target.
<b>Quiet House Requirements</b>	Quiet House Requirements consistent with the Guidelines (Table 3) should be applied where outdoor and indoor noise levels are predicted to exceed the SPP 5.4 noise target. Clearly identify lots that require Quiet House Requirements, and the specific type (i.e. A, B or C).  If proposing to use acoustic treatments differing from the above, clearly explain and justify the difference.
<b>Noise Wall Specifications</b>	Details of the noise wall should be included in the report. As per Section 4.2.2 of the Guidelines, noise walls should have a minimum surface density of at least 15 kg/m <sup>2</sup> and a height that removes line of sight between the receiver and the traffic.
<b>Notifications on Title</b>	Where outdoor noise levels are predicted to exceed the SPP 5.4 noise target, despite the proposed noise mitigation measures that have been recommended, SPP 5.4 requires notification on title to alert prospective buyers that the lot is affected by traffic noise. Notification on titles are required for all lots of subdivision and development proposals. Recommended wording for a notification is provided in Appendix 5 of the Guidelines. Clearly identify lots that require notification on title.

Table 2. Main Roads Key Contacts

TOPIC	CONTACT
<b>Road Traffic Counts</b>	Email <a href="mailto:AGI@mainroads.wa.gov.au">AGI@mainroads.wa.gov.au</a>
<b>Traffic Projections &amp; Transport Modelling Requests</b>	Email <a href="mailto:TMS@mainroads.wa.gov.au">TMS@mainroads.wa.gov.au</a>
<b>Road Design Information (such as proposed Widening or Re-Alignment)</b>	Network Manager of the relevant Main Roads region. Contact details are available on Main Roads website <a href="#">here</a> .
<b>Road Traffic Speed Limit Review</b>	Manager Traffic Services: (08) 9323 4586
<b>Carriageway Pattern and Profile Plans Showing Future Road Alignment</b>	Email <a href="mailto:Planninginfo@mainroads.wa.gov.au">Planninginfo@mainroads.wa.gov.au</a> (This only applies to the Metropolitan region)
<b>Main Roads Noise Management</b>	Manager Environment: (08) 9323 4614

This Factsheet is available on the Main Roads website under ‘Environment’ located here: <https://www.mainroads.wa.gov.au/community-environment/environment/>

