A83 Rest and Be Thankful

LTS EIAR VOLUME 4, APPENDIX 14.2 - NOISE AND VIBRATION METHODOLOGY

Transport Scotland

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A14-2.Noise and Vibration Methodology

A14-2.1. Construction road traffic noise

A14-2.1.1. During the construction phase the Old Military Road (OMR) will operate as the local diversion route of the trunk road.

A14-2.1.2. The existing traffic on the A83(T) is understood to be approximately 4,200 vehicles per day, of which about 12% are heavy goods vehicles (HGVs).

A14-2.1.3. Due to the small number of noise sensitive receptors in the glen a proportionate assessment of road traffic noise level changes due to the use of the diversion route will be undertaken based on guidance in Design Manual for Roads and Bridges (DMRB) LA 111 Noise and vibration and the calculation method in the Department of Transport and Welsh Office technical memorandum Calculation of Road Traffic Noise (CRTN) 1988.

A14-2.1.4. The assessment will be based on calculations of Basic Noise Level (BNL), not on detailed 3D noise modelling. BNL calculations will be undertaken using data on traffic flow, speed and HGV percentage, to calculate a reference noise emission from the road link. The calculation methodology is set out in CRTN.

A14-2.1.5. A distance propagation correction will be applied to the BNL result to predict the road traffic noise level at the noise sensitive receptors within the study area.

A14-2.1.6. Predicted road traffic noise levels and associated noise level changes due to the use of the diversion route will be assessed at noise sensitive receptor locations. The assessment will adopt the short-term magnitude of change criteria in Table 3.54a of LA 111, reproduced below.

Table A14-2.1: Magnitude of change

Short-term magnitude	Short-term noise change (dB $L_{A10,18h}$)
Major	Greater than or equal to 5.0
Moderate	3.0 to 4.9
Minor	1.0 to 2.9
Negligible	Less than 1.0

A14-2.1.7. Initial assessment of likely significant effect on receptors will be determined in line with Table 3.58 of LA 111, reproduced below.

Table A14-2.2: Initial assessment of noise significance

Significance	Short-term magnitude of change
Significant	Major
Significant	Moderate
Not significant	Minor
Not significant	Negligible

A14-2.1.8. Final determination of significance will be based on context and professional opinion.