

APPENDIX 13.1

L_{A90}	The noise level exceeded for 90% of the measurement period. It is generally used to quantify the background noise level, the underlying level of noise which is present even during the quieter parts of the measurement period.
L_{Amax}	Maximum value that the A-weighted sound pressure level reaches during a measurement period. $L_{Amax F}$, or Fast, is averaged over 0.125 of a second and $L_{Amax S}$, or Slow, is averaged over 1 second. Maximum noise levels were all monitored using the Fast response.
$L_{10,1-hour}$	The L_{10} level measured over a 1 hour period.
$L_{10,18-hour}$	The arithmetic average of the $L_{10,1-hour}$ levels for the 18 hour period between 06:00 hours and 24:00 hours on a normal working day. It is a common traffic noise descriptor.
Ambient noise	The totally encompassing sound in a given situation.
Free Field	Free field noise levels are measured or predicted such that there is no contribution made up of reflections from nearby building façades.
Façade Noise Level	A noise level measured or predicted at the façade of a building, typically at a distance of 1m, containing a contribution made up of reflections from the façade itself (+3dB).
Sound Reduction Index (R)	The sound reduction index is a single-number rating of the sound reduction through a wall or other building element. Since the sound reduction may be different at different frequencies, test measurements are subjected to a standard procedure which yields a single number that is about equal to the average sound reduction in the middle of the human hearing range.
Weighted Sound Reduction Index (R_w)	The R_w incorporates a correction for the ears' response. It is derived from comparing the window sound insulation to frequency curve with a family of reference curves.
R_{TRA}	Traffic noise reduction – by adopting an idealised but typical spectrum of road traffic noise dominated by low frequencies, an index R_{TRA} (reduction of road traffic noise) is derived. By comparing this with the sound reduction of the window in dB(A) it represents the likely in service performance for road traffic noise attenuation.
$D_w + C_{tr}$	An on-site measure of airborne sound insulation. The C_{tr} correction is a spectrum adaptation term which 'penalises' low frequency noise.
Vibration	A to-and-fro motion; a motion which oscillates about a fixed equilibrium position.
VDV	Vibration Dose Value is a measure of vibration exposure.
PPV	Peak Particle Velocity is the parameter normally used to assess ground vibration measured in mm/s. Peak particle velocity refers to the maximum speed of a particular particle as it oscillates about a point of equilibrium.