

Ref: VA4946.231116.M2



16 November 2023

Cube Real Estate
21A Kingly Street
London
W1B 5QA

73 Westman Road
Winchester
Hampshire
SO22 6DX

01962 461016
0203 8650332

VA4946 127A LOVEROCK ROAD, READING

L_{Amax} Assessment of Open Storage Yard

Following the initial noise impact assessment of the proposed open storage use within the industrial area at 127A Loverock Road which found that the proposed use would have a low impact when assessed under BS4142:2014 and including consideration of the context of the site, an assessment of the likely L_{Amax} event levels has been requested.

The nature of the proposed use is such that there is a high degree of uncertainty regarding the likely L_{Amax} levels that would occur. This would depend on the type of product being moved and the equipment used to move the products around. The frequency of occurrence is also unknown, particularly at night.

This assessment is based on previous surveys undertaken at a builder's merchant yard which had open storage of a variety of building products including timber, steel and pallets, stored both on the ground and on high-level storage racking. The yard was busy with HGVs or lorries being loaded and offloaded via forklifts.

The measurement location was on the boundary of the site, which was approximately 50m x 40m in size. The highest measured L_{Amax} levels were deemed to be due to forklift movements alongside storage racks at a distance of 5m from the measurement location.

The survey was undertaken over 4 days with continuous monitoring at a 5 minute integration period.

The typical L_{Amax} (taken as the 90th percentile of all L_{Amax} events during operational hours) was 82dB.

Based on this source level at Loverock Road, the resulting L_{Amax} levels at the nearest noise sensitive receivers would be as follows:

Source Noise Level (L _{Amax} @ 5m)	82dB
Distance Loss (130m)	-28
Screening (intermediate Buildings)	-10
Resulting sound Level at receivers	44dB L _{Amax}

Table 1 – Calculation of sound propagation to receivers

The predicted sound level at the receiver of L_{Amax} 44dB is well below the current L_{Amax} levels as measured on site (generally in the high fifties overnight) and similar to the night time ambient noise level due to traffic. This illustrates that the proposed use would not result in an increase in maximum noise levels at the receiver.

Within dwellings, allowing a 10dB loss through a partially open window, the resulting internal L_{Amax} level would be around 34dB. This is well below the L_{Amax} 45dB level the 1999 WHO Guidance quotes above which sleep disturbance starts to occur.

Overall the sound levels, including the L_{Amax} levels, are not expected to result in a change in the acoustic character of the surrounding area and are not expected to result in an adverse impact on the surrounding residents.

Yours sincerely
on behalf of Venta Acoustics

Steven Liddell

email: sliddell@ventaacoustics.com