



Site Address:	Lidl, ESL, Stoneham Lane
Technical Design Note Description:	Review of EHO comments
Our Reference:	9672/T04/BL
Date:	14 th November 2022

The following Technical Note has been prepared to review the environmental health comments to our noise impact assessment. We have been provided the following comments from the local authority. The local authority comments are in italics, our response below.

"Environmental Health:

We object to the planning application. Our observations are:

(1) Operating Noise

Unfortunately, the development would result in an exceedance of the Local Planning Authority's noise limit. This is a Rating Level of five decibels below the Background Sound Level. Due to an exceedance of 14 dB(A), we cannot support the application.

The applicant could reconsider the layout of the site such as relocating delivery and docking bay to and chilled storage and plant and equipment to the south-eastern portion of the site. But we have no indication or confidence this or other arrangement would be effective.

Ordinarily, planning and design will consider layout and design of least adverse impact. In this case, the greatest is apparent, and we advise against granting planning permission for this.

Delivery Noise

The impact of deliveries is 3dB below the background in day and 9 dB over at night.

We advised in our report to restrict to daytime deliveries only. Although not quite meeting the Local Authority requirement of -5 in the day, it is 2dB over this and reducing it by a further 2dB would be imperceptible to the occupiers of nearby residents. It should also be noted, as deliveries are short term in nature, applying 5dB below background is an unreasonable target for occasional sources such as deliveries and a limit of 0dB below background is more reasonable.

Context should also be considered, as stated within BS4142. The assessment clearly indicates contextually daytime deliveries will also be acceptable.

However to satisfy the council the client will be providing a barrier to the delivery bay to control delivery noise further.

The barrier will be 3m high, closed with no gaps, and of a mass of at least 10 kg/m². The barrier location is as shown in blue on figure below. This barrier could be secured by condition.

The Cadna:A noise modelling with the barrier is provided below for unloading noise.



With this barrier installed the British Standard 4142:2014 initial estimate of the noise impact at the most sensitive locations is as follows, this

Table 1: British Standard 4142:2014 Initial Estimate

Parameter	Noise Source	Day Noise Level dBA
Background Sound Level, $L_{A90,T}$ dB	--	51
Specific Sound Level, $L_{Aeq,T}$ dB	Arrival	37
	Unloading	41
	Departure	35
Character correction, dB	Arrival	0
	Unloading	0
	Departure	0
Rating Sound Level $L_{Ar,T}$ dB	Cumulative	43
Difference between rating & background level, dB	--	-8

As such delivery noise during the daytime hours would be of a low impact and within the council requirements with this barrier.

Plant Noise

Although not quite meeting the Local Authority requirement of -5 at night, plant noise is 2dB over this local authority criteria. Reducing it by a further 2dB would be imperceptible to the occupiers of nearby residents. It should also be noted the noise assessment is based on all plant running at full capacity. This is rarely the case with a Lidl store, and night-time blinds are used to reduce the use of the dry coolers at night.

Context should also be considered, as stated within BS4142. The assessment clearly indicates contextually plant will also be acceptable.



Layout and Design

The EHO has stated that the applicant could *"reconsider the layout of the site such as relocating delivery and docking bay to and chilled storage and plant and equipment to the south-eastern portion of the site."*

As noted in the sections above, the aims of planning are to avoid adverse impact. This is the case here, and there is no noise reasons why the site should be redesigned further with an alternative layout.

We also guide the applicant to consider the interstitial levels of background level against which to rate the premises noise impact. The premises noise impact must of course be the cumulative magnitude of all emissions a temporal assessment period of 15 minutes or one hour for night-time and daytime, respectively.

As deliveries are occasional it would not be normal or reasonable to consider the cumulative impact of plant and deliveries.

However, the night-time impact will be due to plant and does not change as deliveries are only proposed during daytime hours. Therefore the impact will be as per our report, and low in terms of BS4142.

The daytime impact will be as a result of plant and deliveries. With this barrier (as per section below) the cumulative daytime plant and delivery rating level is 45 dB $L_{Ar(1hr)}$. This is 6dB below the background sound level and easily acceptable.

Baseline Noise Survey

And background sound levels must be obtained at locations where impacts are demonstrated. Some sensitive receive locations will have quieter background sound levels than others. The applicant's use a single measurement does not account for this. Ordinarily, a weeklong measurement is necessary if the store will operate seven days.

The EHO also seems to consider a week long survey is required. This is excessive and unrealistic in the UK where weather conditions do not normally allow for BS4142 complaint background data over a full week.

It is appropriate to determine the background over representative time periods, but does not need to include every day, we have considered it over a week day and weekend period and assessed the impact accordingly. This is correct, robust and in accordance with BS4142.

The single survey location is also robust, and is representative of the noise sensitive receivers around the site. The survey location is in close proximity to these worst case dwellings, and also of a similar distance from all noise sources in the area. We have no concerns in the accuracy of our baseline data.



Summary

Taking into account the above, we consider that delivery noise is suitably controlled and the client is controlling noise further by restricting the hours and providing a barrier. This is a low impact in terms of BS4142 and meets the aims of the NPPF to mitigate noise to a minimum.

We would also consider plant noise is suitably controlled, and is a low impact when assessed to BS4142 and meets the aims of the NPPF to avoid significant adverse impact.

The cumulative impact of plant and deliveries will also be low when assessed to BS4142 and meets the aims of the NPPF to avoid significant adverse impact.

Finally the baseline survey work is appropriate, robust and in accordance with BS4142.

In conclusion the assessment clearly indicates the Lidl development will be of a low impact in terms of noise and is meeting the aims of the NPPF.

I trust this is of assistance. Please contact me should you require any further information or clarification.

Yours sincerely,

Blake Lucas
Director
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