

Noise Proof of Evidence Summary

A noise assessment of current B8 operations on the Appeal Site has been undertaken by Waterman Infrastructure & Environment Ltd (WIE) using the industry standard methodology, namely BS4142.

Two distinct operations that have been assessed:

1. HGVs leaving the Appeal Site when yard is not operational. Typically between 06:30-07:00.
2. Yard operations (with inclusion of HGV movement). Daytime only operations 08:00-18:30 Monday to Friday, 08:00-17:00 Saturday and 08:00-13:00 Sunday.

The BS4142 assessment is based on the level difference between the background sound level (L_{A90}) when B8 operations are not occurring with noise from B8 operations, adjusted for acoustic character by adding a rating penalty where required as defined in BS4142 (rating level), at receptor locations. Account is also taken of 'context', such as prevailing noise levels without B8 operations at receptor locations, absolute noise level from B8 operations at receptor locations together with time of day.

Noise from key B8 operations were established by WIE through measurement of current operations on the Appeal Site. B8 noise levels at receptor locations were predicted using 3D CadnaA noise modelling software, which is an accepted and robust approach. This relied on the input of the measured noise levels of the current key B8 operations into the noise model which then allowed the attenuation of noise with distance together with any intervening screening to be applied.

The background sound level (L_{A90}) used for assessment purpose in the WIE noise assessment was 42dB L_{A90} . For HGV movements out of operational hours a background sound level of 30dB L_{A90} was used. These were the measured background sound levels by Clements Acoustics on the Appeal Site prior to B8 operations, approximately 15 metres from the railway line, a dominant source to Clock House Road residents.

Subsequent noise measurements have been undertaken by RBA Acoustics in the rear garden of Clock House Road. The measured mean background sound level (L_{A90}) between 06:00-07:00 during weekday and Saturday was 39dB L_{A90} . This is 3dB lower than used by WIE. The lower measured level may in part be due to screening afforded by the garden fence to rail noise and other sources. It should be noted that the garden fences to rear gardens of Clock House Road are not in the CadnaA

noise model as specific detail on each garden fence (height/integrity of structure) is not known. In light of this the BS4142 assessment has been updated for residents on Clock House Road based on the lower background sound level of 39dB L_{A90} . The revised BS4142 assessment also takes account of B8 noise levels with and without pole cutting, with inclusion of the recently installed acoustic curtain which reduces noise emissions from pole cutting by approximately 10dB. The assessment also takes account of when B8 operations are only occurring at the main operational areas as well as concurrently throughout the Appeal Site, the latter regarded as worst-case.

It is important to note that pole cutting gives rise to the highest noise emission. It is infrequent, ad-hoc and job dependent. Some weeks there is no cutting whereas in other weeks pole cutting is required. Around 50 poles would take about 1 hour to cut but the 'metal on metal cutting sound is only 4-5 seconds per pole (i.e. ~5 mins) of the overall noise.

It should be noted that the measured mean ambient (L_{Aeq}) and mean background sound level (L_{A90}) in the rear garden of Clock House Road by RBA Acoustics between 06:00-07:00 and 07:00-19:00, essentially pre and during B8 yard operations, is the same during the weekday period which provides important context to the BS4142 assessment. It should also be noted that noise from Churchfields Reuse and Recycling centre is also audible in the rear gardens of Clock House Road and without a recording of the noise with video footage it may be difficult to determine the source of the noise, B8 yard operations or Churchfields Reuse and Recycling centre which operates a JCB.

WIE has conducted further noise measurements proximate to 120 Churchfields Road opposite the access road pre and during HGVs leaving the Appeal Site. The increase in road traffic noise from 06:30 onwards is slight and can't be solely attributed to HGVs associated with the Appeal Site. HGVs also left Churchfields Reuse and Recycling centre from 06:30 onwards. Although not part of BS4142, the L_{AFmax} did not change as a result of HGVs leaving the Appeal Site. The highest measured L_{AFmax} was due to a bus.

Overall, the results demonstrate that the noise impact is not 'significant adverse' as defined by BS4142, when account is taken of context. Context is an integral part of BS4142 and reliance on level

difference alone is not the correct application of BS4142. Provision of mitigation in the form of an acoustic curtain to reduce noise emissions from infrequent ad-hoc pole cutting operations, reduces the adverse impact to acceptable levels and therefore compliant with the requirements of The London Plan 2021, National Planning Policy Framework and Technical Guidance Note of London Borough of Bromley Council. No cumulative effect on background was evidenced due to the combined noise from the Appeal Site and Churchfields Reuse & Recycling centre and the appeal scheme is therefore compliant with Policy 119 of the Bromley Local Plan. B8 operations at the Appeal Site do generate noise, but the BS4142 assessment when taking account of context indicates they are not at a level causing 'significant adverse impact' on the existing residential amenity and do not result in the detrimental impact on resident's amenity.