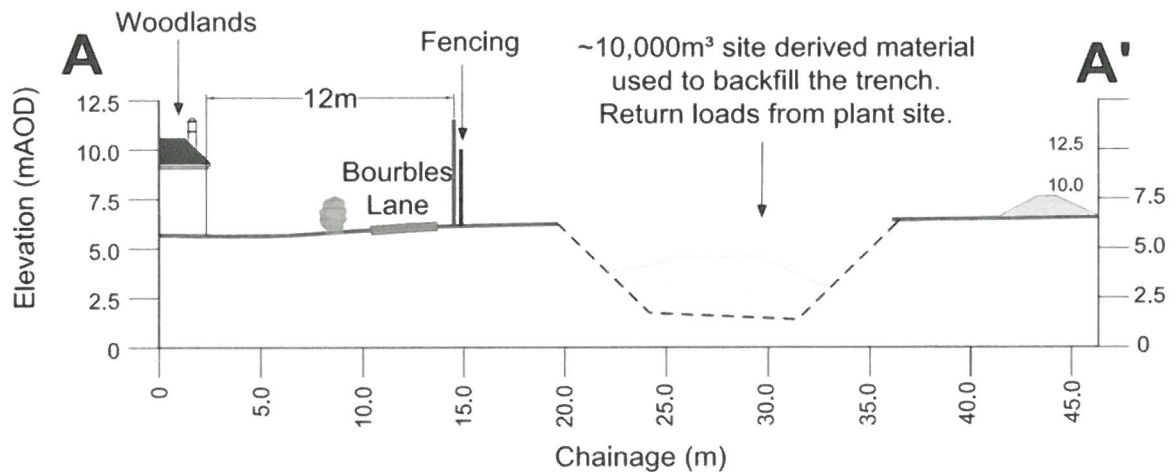


Noise Effects from Excavation Under Bund Locations

- In relation to initial excavation works under the location of proposed bunds close to properties, principally 'Woodlands', the initial application identified these works as part of the temporary works, subject to a higher temporary noise limit. However, the intention of the higher noise limit for temporary works is intended to cover works such as the construction of the bund, which would serve to provide benefit during the later works. It is not intended to serve as a limit for excavation works which is what was originally proposed. Dr Storey agrees with this interpretation and has subsequently put forward a recommendation for construction of temporary noise barriers prior to the excavation works under the bund locations. These will also serve to mitigate noise during the bund construction. These measures are welcomed.
- However, Dr Storey states that noise levels during these excavation works would meet the proposed 50 dB noise limit with the barrier in place. Based on the results of my calculations, I disagree that this can be achieved based on the information currently provided.
- Noise barriers work best where they are high relative to the source and receiver, at least sufficient to block 'line of sight', and located close to the source. Based on the information provided in evidence provided by Mr Simon Rees (16/03/2026) the proposed barrier appears to be approximately 3.75m in height at a distance of 12m from 'Woodlands'. The layout section is shown in Figure 1.

Figure 1 – Section Through Woodlands, Barrier, and Initial Excavation Site Under the Bund

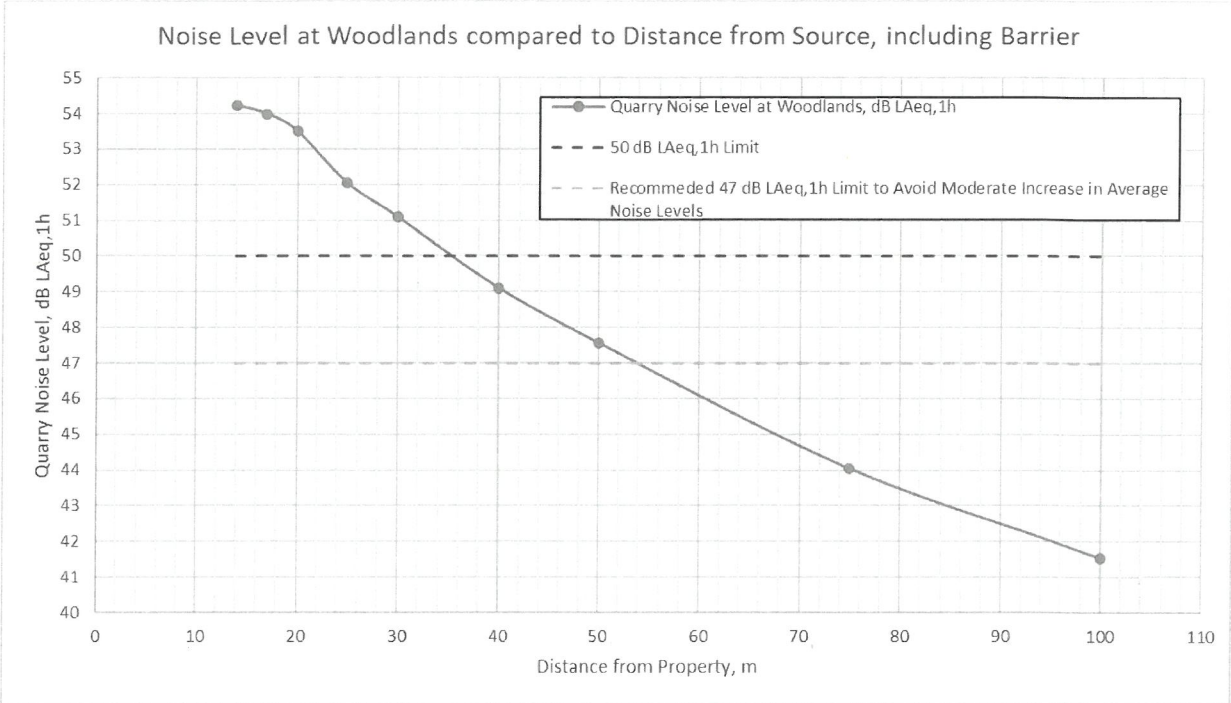
Duration of works - 3 Weeks (contiguous with extraction)



It should be noted that distances noted in the 'chainage' should be reduced by approximately 2.5 to align with the façade of the property.

- I have prepared calculations based on the proposed layout and plant data in accordance with the methodology described in BS 5228-1 'Code of practice for noise and vibration control on construction and open sites – Part 1: Noise'. The calculations used the more detailed screening calculation method provided in Figure F.3 of BS 5228, rather than the 'rule of thumb' 10 dB reduction where line of sight is obscured (i.e. a higher level of attenuation is assumed based on the path difference provided by the barrier over various distances). The results are shown in Figure 2t.

Figure 2 – Noise Level at Woodlands Compared to Distance from Source, including Barrier



- Based on these calculations, my predictions indicate that the 50 dB limit would be exceeded within approximately 35m of Woodlands, with a higher predicted noise level of approximately 54 dB LAeq,1h.
- The initial excavation is between approximately 17.5m and 33.5m from Woodlands (noting the required correction to the chainage). Assuming several meters additional distance for the plant location, this therefore indicates that the 50 dB LAeq,1h limit would be exceeded based on the information provided.

