



TECHNICAL NOTE

Date: 1st September 2021

File Ref: P21-2319

Subject: **Dowley Family – Deadline 7 Submission Noise**

1.0 DEADLINE 7 - SUBMISSION

- 1.1 Create Consulting Engineers Ltd (Create) have been appointed by our Client (LJ & EL Dowley) to provide a written submission for Deadline 7, in line with the Planning Inspectorate timescale for both Theberton House and Potters Farm.
- 1.2 The purpose of this submission is to provide comment on the Applicants DL6 submissions and specific points noted at the ISH8 regarding noise on Wednesday 25th August 2021.
- 1.3 As noted at DL6 following the various submissions to date there are several significant points which the Applicant has also failed to adequately address. These points have yet to be reported on by the Applicant and therefore Create reserve the right to comment further on these points at DL8.
- 1.4 We would urge the Applicant to engage directly with our Client given the conflicting information we are receiving from their Agent and the time taken to receive the requested information, giving little or no time to respond. The Applicant's lack of engagement since 2019 has been lamentably minimal.
- 1.5 We also note that at ISH8 the Applicant confirmed new information would be provided at DL7 on the noise mitigation and monitoring plans, whilst a draft was supplied at DL6 by the Applicant, the detail provided was woefully short making the ISH8 position of the Applicant impossible to fully consider.
- 1.6 Our Client firmly believes this is unacceptable behaviour from the Applicant. We therefore strongly appeal to PINS to reengage on noise at a subsequent ISH to allow all parties to fully explore the documents and method now proposed by the Applicant.

2.0 NOISE

2.1 In summary, at DL6, Create provided the following information for our Clients properties at Theberton House and Potters Farm;

- New accurate noise monitoring records;
- New accurate noise assessment of background noise levels;
- New predicted noise levels during construction
- New predicted noise levels post construction

2.2 Create concluded the polar opposite outcome to the Applicant at our Clients property stating the impact from the construction and post construction would be significant. The Applicant concluded the impact would be 'not significant'.

2.3 Our comments below are based on the following documents and hearing information;

- Chapter 11 Noise and Vibration Appendix 11H of the Environmental Statement: Noise Mitigation Scheme
- Draft Noise Monitoring and Management Plan - Main Development Site
- Issue Specific Hearing 8

Chapter 11 Noise Mitigation Scheme

2.4 Create's opinion remains that the baseline work completed for the noise impact is flawed.

2.5 The Applicant states at Para 1.2 that...

It has been informed by the outcome of the noise assessments undertaken as reported in the Environmental Statements and Environmental Statement Addendums for the main development site and the associated development sites and it includes mitigation for road, rail and construction noise, as well as operational noise. It also covers vibration effects.

2.6 As a result, the starting point of the Mitigation Scheme planned is not acceptable with the substantial baseline position monitored by ourselves and the Applicant. This will fundamentally change the starting position and likely end conclusion from this.

2.7 It is noted as part of the Applicants Stage 1: Refreshed noise assessment a new noise assessment is planned. Create do not consider this to be acceptable suggesting there is sufficient information available to determine the effect of the construction and development to a greater degree now. Our Client's property is significantly impacted by noise and we are seeking a far greater level of information to fully determinate the impact.

- 2.8 To suggest this plan would be implement post DCO approval is not acceptable and removes the ability for our Client to actively understand the full noise impact of the Applicants proposal now.
- 2.9 As both properties are nationally listed as Grade 2, Create are unable to determine the actual impact or mitigation which may be necessary or otherwise be acceptable by the listing in place.
- 2.10 Within the Noise Mitigation Scheme, Table 1.1 states that in order to be eligible for noise insulation from construction noise, the property would need to experience the following criteria;
- (1) a construction noise level which exceeds the higher of either
 - (a) the noise insulation trigger levels set out in Table 1.3 for the corresponding times of the day; or
 - (b) the existing baseline ambient sound level for the corresponding times of the day; and
 - (2) an exceedance of (1) Future road noise levels exceed 68 dB $L_{A10,18h}$ or 58 dB $L_{Aeq,8hrs}$ at 1m from the façade;
 - (a) the exceedance is predicted to occur on 10 or more days of working in any 15 consecutive days or on a total number of days exceeding 40 in any 6 consecutive months; or
 - (b) where the exceedance is predicted to occur only on a Saturday or Sunday, it is predicted to occur on 2 weekends, or part thereof, in any 15 consecutive days or on 6 weekends, or part thereof, in any 6 consecutive months.
- 2.11 Our client's property at Potters Farm would be eligible under these criteria as the predicted levels are above the existing baseline ambient sound level. The works have also been reported to operate 24 hours per day and 7 days per week. It is therefore highly likely that the levels will be exceeded on 10 or more days of working in any 15 consecutive days.
- 2.12 We are of the opinion that when using the existing ambient sound levels measured by Create, the property at Theberton House would also qualify and scheme detail for mitigation are requested now for review.
- 2.13 We are seeking a more thorough noise assessment and mitigation strategy prior to the DCO conclusion.

Draft Noise Monitoring and Management Plan - Main Development Site

- 2.14 The comments raised above are equally relevant.
- 2.15 The baseline position recorded by the Applicant is not acceptable or representative of the actual levels as Create have demonstrated at DL6 for both dwellings.

- 2.16 The planned construction operation at the main development is planned to be 24 hours, 7 days a week. The mineral extraction within the Borrow Pits will have an impact on both Theberton House and Potters Farm. This has been recognised by the Applicant, in so much as they have proposed to install a 3m high acoustic barrier in the close vicinity to Potters Farm, as depicted by barrier B2 in Figure A.1 of the Draft NMMP.
- 2.17 Create have stated at DL6 that the planned noise mitigation and bund work are inadequate to provide as acceptable noise level during the construction period. From the Applicant's noise model, this acoustic barrier has been shown to provide approximately 2 – 4 dB reduction for the residents of Potters Farm. The acoustic barrier would have a reduced efficacy to Theberton House due to the increased distance to the property and ultimately the smaller path difference which would be provided by the same acoustic barrier. In addition to the acoustic barrier, the document states that the use of Best Practicable Means and adhering to the CoCP would be applied. This will be extremely difficult for the Applicant to police as the reliance would be given to the contractors on site and not considered sufficient.
- 2.18 Given the significantly lower measured ambient and background sound levels reported by Create, the Applicants threshold noise levels are not acceptable due to this having such an impact on the Lowest Observed Adverse Effect Level (LOAEL). Table E.1 of BS 5228:2009+A1:2014 suggests that the **evening and weekend Significant Observed Adverse Effect Level (SOAEL)** values should be **10 dB below** the daytime SOAEL and the **night time working SOAEL** values for to be **20 dB lower** than the day time SOAEL.
- 2.19 As detailed within Table 4.1 of the Draft NMMP, the SOAEL for day time has been proposed as 60 dB $L_{Aeq,16h}$ and the **night time SOAEL** has been set at **15 dB below** the day time, at 45 dB $L_{Aeq,8h}$. There has been no reduction planned for the evening hours, but instead has been proposed to be the same as the day time hours.
- 2.20 Create believe a reduction to the evening and nighttime threshold levels (LOAEL and SOAEL values) in line with BS 5228 is required.
- 2.21 Earth moving will be forming a large proportion of the planned works for the Sizewell C project. Section E.5 of BS 5228 relates to "Construction works involving long-term substantial earth moving" including the surface mineral extraction, as will be happening with the Borrow Pits in particular.
- 2.22 Section E.5 clearly states that "***In this situation, the guidance contained within the Technical Guidance to the National Planning Policy Framework [15] needs to be taken into account when setting criteria for acceptability***".
- 2.23 This Technical Guidance states;
- "*Subject to a maximum dB (A) $L_{Aeq,1h}$ (free field), mineral planning authorities should aim to establish a noise limit at the noise-sensitive property that **does not exceed the background level by more than 10 dB(A)**. It is recognised, however, that in many circumstances it will be difficult to not exceed the*

background level by more than 10 dB(A) without imposing unreasonable burdens on the mineral operator. In such cases, the limit set should be as near to that level as practicable during normal working hours (0700-0900) and should not exceed 55 dB(A) $L_{Aeq,1h}$ (free field). Evening (1900-2200) limits should not exceed background level by more than 10 dB(A) and night time limits should not exceed 42 dB(A) $L_{Aeq,1h}$ (free field) at noise sensitive dwellings”.

- 2.24 It is clear that the most relevant guidance states that the day time levels should be the most relaxed, with a reduction made for evening works and a larger reduction for the night time works. This does not appear to have been adopted by the contents of the Draft NMMP.
- 2.25 Within paragraph 6.1.4 of the Draft NMMP, the wording suggests that continuous noise monitoring would be used. Paragraph 6.2.3 however can be interpreted that noise monitoring at only a sample of the pre-defined noise monitoring positions would be acceptable.

3.0 CONCLUSIONS

- 3.1 Our Client and Create continue to raise significant, legitimate concerns with respect to the SLR and it is requested that the Applicant responds accordingly. There continues to be no engagement by the Applicant to address this matter.
- 3.2 This is expected to lead to the introduction of mitigation measures and/or redesigned components of the overall scheme currently proposed.

Note By: Jody Blackwood – Technical Director
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