

Proof of evidence on noise
On behalf of Castle Point Borough Council
Land to the east of Manor Trading Estate Benfleet
Appeal Ref: APP/M1520/W/22/3310794

Statement of Edward Davis

1. Introduction

- 1.1 I am employed by Castlepoint Borough Council as a Pollution Planning Consultant. I have the Institute of Acoustics Diploma in Acoustics and Noise Control and a Certificate in Environmental Noise Measurement. I also hold a BSc Honours Degree in Environmental Health.
- 1.2 I have been dealing with specialist noise and planning cases for local authorities such as Camden Council and the City of Westminster for over 30 Years. My main duties for Castlepoint Borough Council are to assess environmental issues in relation noise and vibration on planning applications and to give specialist acoustic advice to the authority's environmental health department.
- 1.3 Additionally, I provide private consultation services on acoustic and vibration issues for major infrastructure projects like HS2 and major infrastructure companies. I have in my capacity as a noise consultant prepared acoustic assessments to support planning applications both for residential and commercial developments.
- 1.4 I was instructed on 21st December 2022 and requested to represent the authority for this planning appeal to be heard at public inquiry. Before accepting the instructions, I reviewed the application papers, including the Noise Constraint Study and Façade Noise Exposure Assessment, and satisfied myself that I could defend RFRs 2 and 3. I did not consider that I could defend RFR4 (on the impact of the proposed acoustic barrier on the Manor Trading Estate, and advised the Council accordingly, which led to the withdrawal of RFR4.

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- 1.5 The Noise Constraint Study, document ref: 12570518 dated July 2020 was originally reviewed by 'Jacobs' (an acoustic consultancy) on behalf of the Minerals and Waste Planning Authority (ECC), which was consulted by Castlepoint Borough Council, who gave a consultation response dated 14th July 2021. Having also reviewed 'Jacobs' response, I was in agreement that the submitted Noise Constraint Study was deficient and also agreed with their request for a more robust technical submission. I understand that Jacobs have not been retained for this appeal because of a contractual issue which is unrelated to the substance of their consultation response.
- 1.7 As referred to above, I have reviewed the application documentation, including the work undertaken by HA Acoustics on behalf of the Appellant. I have also undertaken a site view. I remain of the view that the basis for refusal on noise grounds through RFR2 (*Reason 2: Impact upon safeguarded waste disposal (scrap metal yard)*), and RFR3 (*Reason 3: Noise impact of the scrap yard upon future occupiers of the proposed commercial and residential development*) provide a sound basis for refusal.
- 1.8 The evidence which I have prepared and provide for this appeal reference APP/M1520/W/22/3310794 (in this proof of evidence) is true and I confirm that the opinions expressed are my true and professional opinions.

2. The Appeal Site and Manor Trading Estate

- 2.1 The site is currently privately owned land, which is currently accessed via Manor Trading Estate to the west. The site is located on the outskirts of Benfleet and surrounded by commercial, residential and educational premises. West of the proposed site is a multi-use industrial estate, of which one of the premises is a metal recycling facility (Benfleet

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Scrap). To the east are residential premises some of which back onto the proposed site and are accessed via Keswick Road. Immediately south of the site is ECL Benfleet - Hesten Lodge Day Care Centre. Beyond the day centre is The Robert Drake Primary School which is accessed from Church Road.

3. RELEVANT NATIONAL POLICY GUIDANCE

3.1 NATIONAL PLANNING POLICY FRAMEWORK (NPPF)

3.1.1 The Department for Communities and Local Government introduced the National Planning Policy Framework (NPPF) in March 2012. The latest revision of the NPPF is dated July 2021.

3.1.2 The NPPF sets out the Government's planning policies for England and how these are expected to be applied. It states that the purpose of the planning system is to contribute to the achievement of sustainable development and sets out three overarching objectives to meet that aim, one of which is the environmental objective (paras 8). Under Chapter 15 of the NPPF, planning decisions should contribute to and enhance the natural and local environment by preventing both new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of noise pollution (para. 174(e)).

3.1.3 Planning policies and decisions should avoid noise giving rise to significant adverse impacts on health and quality of life, ensuring that new development is appropriate for its location (para. 185(a)). Conditions may be used to mitigate and reduce noise to a minimum so that adverse impacts on health and quality of life are minimised. It must be recognised that development will often create some noise and existing businesses

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wanting to develop in continuance of their business should not have unreasonable restrictions put on them. Reference is made within NPPF to the Noise Policy Statement for England (NPSE) as published by DEFRA in March 2010 (para. 185).

3.2 NOISE POLICY STATEMENT FOR ENGLAND (NPSE)

3.2.1 The long-term vision of the NPSE is stated within the document's scope, to 'promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development'. The policy aims are stated to (paragraph 2.15:

- avoid significant adverse impacts on health and quality of life;
- mitigate and minimise adverse impacts on health and quality of life; and
- where possible, contribute to the improvement of health and quality of life.

3.2.2 The application of NPSE should mean that noise is properly taken into account at the appropriate time (for example in planning applications or appeals) where it must be considered alongside other relevant issues. The guiding principles of Government policy on sustainable development should be used to assist in the implementation of the NPSE.

3.2.3 The NPSE should apply to all types of noise apart from occupational noise in the workplace. The types of noises defined in the NPSE paragraph 2.5 includes:

- Environmental noise from transportation sources;
- Neighbourhood noise which includes noise arising from within the community; industrial premises, trade and business premises, construction sites and noise in

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the street.

3.2.4 The Noise Policy Statement England (NPSE) outlines observed effect levels relating to the above, as follows (*paragraph 2.19 to 2.21*):

• **NOEL – No Observed Effect Level**

- This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise.

• **LOAEL – Lowest Observed Adverse Effect Level**

- This is the level above which adverse effects on health and quality of life can be detected.

• **SOAEL – Significant Observed Adverse Effect Level**

- This is the level above which significant adverse effects on health and quality of life occur. As stated in the NPSE, it is not currently possible to have a single objective based measure that defines SOAEL that is applicable to all sources of noise in all situations (*paragraph 2.22*). Specific noise levels are not stated within the guidance for this reason and allow flexibility in the policy until further guidance is available.

4. ProPG: PLANNING AND NOISE

4.1.1 As outlined above, the National Planning Policy Framework encourages improved standards of acoustic design, although it provides no specific noise levels which should be achieved on site for varying standards of acoustic acceptability, nor a prescriptive method for the assessment of noise.

4.1.2 ProPG: Planning and Noise was published in May 2017 in order to encourage better

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acoustic design for new residential schemes in order to protect future residents from the harmful effects of noise. This guidance can be seen as the missing link between the current NPPF and its predecessor, PPG24 (Planning Policy Guidance 24: Planning and Noise), which provided a prescriptive method for assessing sites for residential development, but without the nuance of 'good acoustic design' as outlined in ProPG.

4.1.3 ProPG allows the assessor to take a holistic approach to consider the site's suitability, taking into consideration numerous design factors which previously may not have been considered alongside the noise level measured on site, for example the orientation of the building in relation to the main source of noise incident upon it.

4.1.4 It should be noted that this document is not an official government code of practice, and neither replaces nor provides an authoritative interpretation of the law or government policy, and therefore should be seen as a good practice document only.

5. BS 8233:2014 Guidance on Sound Insulation and Noise Reduction for Buildings

5.1.1 British Standard 8233: 2014 "Guidance on sound insulation and noise reduction for buildings" provides guidance for the control of noise in and around buildings.

5.1.2 BS8233:2014 Section 7.7.2 titled "Internal ambient noise levels for dwellings" states:
"In general for steady external noise sources, it is desirable that internal ambient noise levels do not exceed the following guideline values Table 4BS8233:2014 (indoor ambient noise levels for dwellings)"

Activity	Location	Desirable Internal Ambient Criteria	
		07:00 - 23:00	23:00 - 07:00

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Resting	Living Rooms	35 dB L _{Aeq,16hour}	-
Dining	Dining Room/Area	40 dB L _{Aeq,16hour}	-
Sleeping (Daytime Resting)	Bedroom	35 dB L _{Aeq,16hour}	30 dB L _{Aeq,8hour}

6. Statutory Noise Nuisance

6.1.1 There is no quantitative definition of statutory noise nuisance. It is generally accepted however, that if a noise level is at least 5dB (or 10dB if tonal) below the minimum background L_{90(15minutes)} at 1m from the nearest noise sensitive residential window, then the risk of a statutory noise nuisance is likely to be avoided.

7. Internal and external noise standards for residential development

7.1.1 In assessing planning applications for residential development, Castlepoint environmental health would expect to see the following standards achieved internally:

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living Room	35 L _{Aeq, 16hour}	-
Dining	Dining Room / Area	40 L _{Aeq, 16hour}	-
Sleeping (daytime resting)	Bedroom	35 L _{Aeq, 16hour}	30 L _{Aeq, 8hour} 45 L _{Afmax}

- These levels are derived in part from Table 4 of BS8233:2014 and also World Health Organization figures. The figures from BS8233:2014 are themselves derived from World Health Organization values.
- The notes to Table 4 of BS8233:2014 apply to the interpretation of the above figures.

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- It is also expected that to achieve an acceptable internal noise climate that individual noise events should not exceed 45dB L_{AFmax} on a frequent basis. The acceptability of the frequency of events will depend on the level of exceedance of the 45dB L_{AFmax} criteria. Up to 10 events may be acceptable for small exceedances (<5dB) whilst for high exceedances (≥ 5 dB and <10 dB) less than 5 events will be acceptable. Events in excess of 10dB above 45dB are not permitted.

7.1.2 The maximum day time noise level in outdoor living areas exposed to external noise should not exceed 50dBA $L_{eq\ 16\ hour}$ [free field].

8. Comments on Façade Noise Exposure Assessment Report

8.1.1 As referred to above, I have reviewed the latest acoustic submission by HA Acoustics, reference: HA/AD961/V2. As to the noise survey work undertaken, I confirm that I do not take issue with the methodology adopted, and I do not dispute the technical basis of the survey work or its findings. My issues relate to:

- (1) The extent of the proposal which has been assessed.
- (2) The extent to which Benfleet Scrap Co Ltd (Unit 16 Brunel Road) and GT Breakers (Unit 10 Brunel Road) has been considered as a noise source and what has been assessed.
- (3) The application of those results to national policy and guidance, and the resulting noise environment which will be experienced.

8.1.2 In my judgment, based on the findings of the HA Acoustics Report, the noise

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environment for residents of the proposed development is not likely to be acceptable and the proposal is not likely to integrate effectively with Benfleet Scrap Ltd. which lies to the east of the site, leading to noise complaints and unreasonable restrictions placed on Benfleet scrap as a result of this development.

9. The extent of the proposal assessed

9.1.3 The submitted application comprises of 68 Residential Units, Three Class E (Commercial, Business and Service) Units, One B2 (General Industrial) Unit and Two B8 (Storage and Distribution) Units to the east of Manor Trading Estate.

9.1.4 Class E broadly incorporates the previous A1, A2, A3, B1, and part of both D1 and D2 uses and provides for a more flexible use.

9.1.5 There is a potential for noise arising from the use of the commercial units in this location, which could impact the proposed residential development.

9.1.6 The HA Acoustics report focuses mainly on the potential for noise from mechanical plant and not the wider potential for noise from the flexible use of the commercial units, such as delivery and transport noise sources.

10. Benfleet Scrap Ltd. as a noise source

10.1.1 Noise from Benfleet Scrap has been assessed by HA Acoustics but access to Benfleet Scrap to measure the specific noise levels was not possible and the assessment is based on unattended site measurements.

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10.1.2 1x Metal waste compactor, 4 x Tracked excavators and occasional bang/impulsive noise due to dumping of materials have been noted within the submitted HA assessment; however, I am aware that there is, in addition, an aluminium process plant which cannot be seen from the proposed site location (it is to be housed within the site boundary. This was permitted under application *ESS/48/22CPT*). This is not noted to have been assessed during the assessment. The metal waste compactor also has a two stage noise component being the compactor itself and its compressor, which is the dominant steady noise. Peak noise is from metal being dropped into the compactor.

10.1.3 Benfleet Scrap's operation licence has been reviewed and is noted not to have restrictions on its recycling operations, which is likely to allow increased site operations in future as the need for recycling increases.

10.1.4 If site operations increase, this is likely to increase the noise output of the site and impact on the proposed development site. That is to say for example, with increased output there will be more frequent noise peaks across the site activities increasing the noise exposure to future occupiers of the development site.

11. Application of noise survey findings to policy and guidance

11.1.1 As referred to above, appropriate noise guidelines have been taken into account within the report such as Noise Policy Statement for England, National Planning Policy Framework (NPPF), Planning Practice Guidance on Noise, and BS 4142:2014 and BS 8233:2414.

11.1.2 The submitted acoustic assessment reference *HA/AD961/V2*, Appendix C.1 shows that compliance of internal noise levels within the residential units can be achieved with

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robust glazing specification. However, BS 8233:2014 and local authority internal noise expectations cannot be met with the residential windows open.

11.1.3 Plan drawing AD961-1 shows that the achieved external noise levels are predicted to be between 51-60dB LA_{eq,16hours} which is in excess of current guidance and local authority requirements.

11.1.4 In applying the noise levels to relevant policy and guidance, HA Acoustics suggest that the site can be considered as a city centre or urban area adjoining the strategic transport network under para. 7.7.3.2 of BS 8233:2014 Guidance on Sound Insulation and Noise Reduction for Buildings, such that the upper limits of 8233:2014 for external amenity noise could apply. I disagree that the appeal site can be considered such a location.

11.1.5 BS 8233:2014 para. 7.7.3.2 states (emphasis added):

... 'in higher noise areas, such as city centres or urban areas adjoining the strategic transport network, a compromise between elevated noise levels and other factors, such as the convenience of living in these locations or making efficient use of land resources to ensure development needs can be met, might be warranted. In such a situation, development should be designed to achieve the lowest practicable levels in these external amenity spaces but should not be prohibited'.

11.1.6 The application site is not affected by elevated transport noise and the density of residential developments in the locality and the character of the surroundings do not fit with the area being a city or urban area adjoining the strategic network.

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11.1.7 Even if this were considered such an area, using the upper limits of 55dB for external noise, the predicted noise levels are still in excess of those levels. The scrap yard cannot be classed as a transport network as the guidance suggests. Overall, I disagree with this interpretation of this part of the guidance and its applicability here.

11.1.8 As my position within the authority as Pollution Planning Consultant, I am of the opinion that although internal noise levels can be met with a robust façade/glazing and ventilation strategy, it is reasonable that in the warmer summer months occupiers will be opening windows for natural air, exposing them to existing elevated noise levels of between 51-60dB which is above the levels Castlepoint would expect.

11.1.9 To put this in context, levels between 45dB and 55dB $L_{Aeq,16hr}$ would be noticeable and intrusive. Noise would be heard and such noise levels are known to cause small changes in behaviour and/or attitude, e.g. turning up volume of television; speaking more loudly; closing windows some of the time because of the noise. There is also potential for non-awakening sleep disturbance. This affects the acoustic character of the area such that there is a perceived change in the quality of life.

11.1.10 Levels between 55dB and 66dB $L_{Aeq,16hr}$ will be noticeable and disruptive. Noise will cause a material change in behaviour and/or attitude, e.g. having to keep windows closed most of the time, avoiding certain activities during periods of intrusion. There is potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening, and difficulty getting back to sleep. Quality of life is diminished due to change in acoustic character of the area.

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11.1.11 As the dominant noise source is from the current operations of the scrap yard, this is likely to lead to noise complaints against the operator from occupiers of the residential units in warmer months because internal noise levels cannot be met with the windows open in warmer months. This would result in an unsustainable living situation for future occupiers.

11.1.12 The design Masterplan shows proposed external amenity spaces around the proposed development and the submitted HA assessment AD961-1 shows the predicted noise levels within these areas.

11.1.13 The assessment shows that these areas are still impacted by the noise of Benfleet Scrap even with the proposed mitigation. It is suggested that future occupiers may use the local park 'Woodside Park' to the northwest which in real terms is at least a distance of some 1.2km. Although the park is accessible, it is my view it is an unreasonable expectation distance to travel for reasonable quiet enjoyment.

11.1.14 It is in my opinion that the submitted acoustic information does not adequately show compliance to current guidance and does not show good acoustic design.

11.1.15 In my view, the proposed development does not show that it is preventing the new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of noise pollution", contrary to para. 187 of the NPPF.

11.1.16 In my view, granting planning permission here would not ensure that new development would be integrated effectively with existing businesses and would be likely to result in

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those businesses having unreasonable restrictions placed on them as a result of development permitted after they were established, contrary to NPPF para. 187 which states:

Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed.

12. Other matters

12.1.1 Numerous noise complaints have been received from local residents to the local authority's environmental health department over the past 5 years see Appendix 1. Reviewing the range of complaints, it can be seen that they range from complaints in excess of 200m to the east, 500m+ to the south of the site and in excess of 350m to the northeast. I am at this stage not aware of the specific outcomes of these complaints.

12.1.2 As the proposed development's residential areas are within 100m from Benfleet Scrap, it can reasonably be expected that complaints would be likely from occupiers within that proximity to the site.

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13. Mitigation

13.1.1 The proposals for noise mitigation for this development are to erect a 12m high acoustic barrier formed by a line of Commercial, Business and Service (2020 Use Class E) buildings.

13.1.2 The submitted HA assessment appendix AD961-1 shows the predicted external noise levels expected and predicted façade levels. Given that there are elevated façade levels, the submission should, but does not, show the orientation of habitable rooms away from major noise sources.

13.1.3 All the façade levels are in excess of what is expected from the guidance of BS8233:2014.

13.1.4 The proposed mitigation to achieve the required internal levels are to install mechanical ventilation to all units. As stated earlier in this proof it would be a reasonable expectation of all future occupants that they will open windows in the warmer months for natural ventilation. In those circumstances, they would be exposed to levels of between 55dB to 60dB where this will be noticeable and disruptive to future occupants.

14. Summary and conclusions

14.1.1 I am employed by Castlepoint Borough Council as a Pollution Planning Consultant. I have the Institute of Acoustics Diploma in Acoustics and Noise Control and a Certificate in Environmental Noise Measurement. I also hold a Bsc Honours Degree in Environmental Health.

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14.1.2 I have been dealing with specialist noise and planning cases for local authorities for over 30 Years. My main duties for Castlepoint Borough Council are to assess environmental issues in relation noise and vibration on planning applications and to give specialist acoustic advice to the authority's environmental health department.

14.1.3 Additionally, I consult privately on acoustic and vibration issues for major infrastructure projects like HS2 and major infrastructure companies. I have in my capacity as a noise consultant prepared acoustic assessments to support planning application both for residential and commercial developments.

14.1.4 I have reviewed the initial outline application which was initially commented on by 'Jacobs'. Jacobs highlighted that the acoustic note submitted to support the application was deficient and did not address adequately noise concerns and further information was requested.

14.1.5 Jacobs were not retained for this appeal, and I was commissioned to follow on from Jacob's.

14.1.6 I have reviewed the revised HA Acoustic submission which has adequately followed procedure and guidance in producing their report. The baseline noise assessment has found that the proposed site is exposed to elevated noise levels that will affect the proposed site.

14.1.7 The acoustic submission has assessed operational noise from Benfleet Scrap but in my opinion not fully. The report has specified an acoustic barrier for the site to mitigate

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noise.

14.1.8 This barrier if installed should improve noise that is radiated back into the site, however noise within the proposed site will be reduced but not to a level that will comply to current British standards for internal and external noise.

14.1.9 To mitigate against these site noise levels, the report has suggested robust façade and glazing design. These proposed mitigation measures of mechanical ventilation will give reasonable internal noise levels only with the windows closed.

14.1.10 For external amenity spaces the levels cannot be achieved, and the report suggests that by reclassifying the site as a city or urban area the elevated levels may be considered reasonable.

14.1.11 It can be seen from the submitted acoustic noise maps that even if the upper limits of BS 8233:2014 are taken into consideration, the levels are still exceeded. It has to be highlighted that these levels are averaged over 16 hours. During the course of a typical day L_{Amax} levels will exceed 70dB and will be clearly audible within the proposed residential units.

14.1.12 During the warmer summer it is reasonable that occupiers would open their windows for natural ventilation during the day and by doing this will expose them to elevated noise levels.

14.1.13 It is reasonable to assume once occupiers are exposed to these levels, complaints are likely to follow which will impact on the normal operation of Benfleet Scrap.

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14.1.14 The assessment mentions the proposed future commercial uses of the development site, but at this stage assessments cannot be made as to the impact these may have on the proposed residential units as tenanted uses have not been finalised in the initial design. The possible restrictions on the proposed new commercial units may have an impact on the use of the proposed commercial uses such as traffic flow restrictions, plant noise limits and there will need to be careful consideration on hours of use of these proposed units.

14.1.15 Having reviewed all the technical information I am of the opinion that there is good reason for refusal on noise grounds RF 2 and RF3 in that the proposal fails to adequately identify and consider the impact of the proposed residential and commercial development on Benfleet Scrap within the adjoining Manor Trading Estate, contrary to paragraph 187 of the National Planning Policy Framework.

14.1.16 The submission also fails to adequately demonstrate a lack of adverse impact arising from the operation of Benfleet Scrap within the Manor Trading Estate on future occupiers of the proposed commercial and residential development, contrary to paragraph 187 of the National Planning Policy Framework

End:.....

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Appendix 1.

Noise complaint locations:

