

Consultation Response from: KC Environmental Health (Pollution & Noise Control)
2020/93742 - adj Hebble House, 10 Hebble Court, Thornhill Lees, Dewsbury, WF12 0AY
Erection of 3 detached dwellings
Responding Date:
30 November 2021

Responding Officer:
Mohammed Nasim
Natalie Heaney
(Contaminated Land)

Responding Ref:
WK/202037718

Comments
Noise

The applicant has submitted an Assessment of the Noise Climate at Hebble Court dated 21st of October 2021 Ref APF/C/AFA769.

Para 4.1 states the daytime measurements were carried out on 8th October 2021 between approximately 0700hrs to 0830hrs and 1530hrs to 1900hrs to represent morning and afternoon rush hour respectively, and between 2300hrs and 0100hrs (on the 12th to 13th of October). The measurement positions are shown in para 4.3.

Section 5 discusses the results and states that during the daytime, the principal contributors to the background noise climate were road traffic and the activation of the AC units to the rear of the Mullaco supermarket. In the night time, the principal contributor to the existing noise climate was the intermittent operation of the AC units to the rear of the supermarket and these units were activated quite frequently. A summary of the results are given in tabulated form which is repeated below -

Time	Position	Index	dB(A)
Overall Rush Hour	1	L _{eq}	56
		L _{max}	79
		L ₉₀	49
Overall Early Night	1	L _{eq}	50
		L _{max}	65
		L ₉₀	42

A comparison is made with the relevant requirements within BS8233 and the reductions required are tabulated which is repeated below –

Environment	Position	Required Reductions dB	
		Desirable	Reasonable
Living Rooms	1	21	16
Bedrooms	1	20	15
Outdoor Living Areas	1	6	1

It is clear that mitigation is required to ensure levels meet with the requirements of BS8233. At para 5.3, the report states that based on the measured noise levels at the noisier times of day and night, windows will need to be kept closed on all elevations to meet 'desirable' conditions.

Trickle ventilation is recommended but it is our position that acoustic trickle ventilation alone is unlikely to provide sufficient ventilation i.e. purge ventilation, to help control thermal comfort without the need to open windows and would therefore not be acceptable. It is unacceptable that building occupiers will be faced with the option of having to be exposed to either excessive noise or excessive heat and this is the situation that Kirklees requires to be addressed through the provision of an alternative ventilation system when windows need to be kept closed for noise mitigation reasons.

An alternative ventilation system would need to provide a level of ventilation to properties affected by excessive external noise, sufficient to replace the ventilation which would normally be provided by opening windows. Therefore, the system would be capable of helping to improve thermal comfort and reduce the risks of overheating. During any hot weather, the alternative ventilation system must be capable of drawing in cooling external air; any heat exchanges used for warming incoming air during cold weather must be capable of being bypassed during hot weather. Similarly, systems that draw in air from the roof-space of the building would need a bypass to allow air from the outside to be drawn in during warm weather.

The alternative ventilation scheme must identify which rooms require a ventilation system and the acoustic specification of the proposed ventilation system demonstrating that when operated it will not cause indoor noise target levels to be exceeded. Also, the alternative ventilation system must not compromise the sound insulation properties of the building envelope. It must demonstrate how habitable rooms shall be provided with sufficient ventilation to help control thermal comfort and avoid overheating during hot weather without the need to open windows. This should include details of the air intake location and any summer bypass for any heat recovery system including a calculation for air changes/hour. A Standard Assessment Procedure (SAP) would be acceptable to demonstrate that the risk of overheating is minimised. A condition for an alternative ventilation scheme is recommended.

Externally, the report states that any solid garden fence (e.g. fence panels) will be sufficient to provide the necessary attenuation required to bring the noise level in the proposed garden down to 'desirable' criteria, especially when the noise level is averaged out over the course of the 16 hour day period, instead of being based on the noisiest 3 hour period measured and this is accepted. A specification for the fence will be required and a condition is recommended.

The findings of the report are accepted.

Contaminated Land

Environmental Health has previously commented on the following documents submitted in support of the application:

- a Coal Mining Risk Assessment report by Geoinvestigate Ltd, dated 27 November 2020
- a letter titled '*Drilling Investigation at Slaithwaite Road, Thornhill Lees, Dewsbury*' by Abbeydale dated 16th June 2005 (ref: P JL/324001let1)

We considered that the information provided failed to establish whether there is the potential for contamination to pose a risk to the development. As such, we recommended full

contaminated land conditions. Now, a Phase I & II Geo-Environmental Assessment by Environmental Protection Strategies Ltd, dated 16th November 2021 (ref: UK21.5618) has been submitted. The report includes geo-technical information, which is outside the remit of Environmental Health, this consultation response therefore only relates to the land contamination aspects of the report

The report is a combined Phase 1 and Phase 2 report. The Phase 1 aspect of the report advises that several historic on-site and off-site land uses pose a potential risk to the development. These include but are not limited to, Hebble Mill, a malthouse, a slag heap and possible mine workings. Additionally, during the site walkover, evidence of waste and burnt materials were identified. The report continues to detail the findings from an intrusive ground investigation undertaken in October 2021. The field methods included five window sample boreholes to a depth of 5.25m, laboratory analysis of four samples and ground gas monitoring. The ground gas monitoring took place over three intervals (26th October, 2nd November and 9th November).

Made ground was encountered across the site between 2.0m and 3.6m thick, and to a depth of 3.60 metres below ground level (bgl). The made ground was underlain by Stiff Friable Sandy Clay interpreted as a weathered horizon of the underlying Pennine Lower Coal Measures. The laboratory analysis confirmed that the made ground samples contained two exceedances in arsenic, one exceedance in naphthalene, benzo(a)pyrene, dibenzo(a,h)anthracene, benzo(b)fluoranthene and TPH Aromatic C16-C21.

No methane was detected during the gas monitoring. The peak carbon dioxide concentration recorded was 0.8% v/v and the minimum concentration of oxygen recorded was 16.4% v/v. No positive flow readings were recorded during the monitoring programme. Only sporadic occurrences of groundwater were reported. These ranged between 1.63m bgl and 1.74m bgl at WS01, 0.39m bgl to 0.48m bgl at WS03 and 0.67m bgl to 0.82m bgl at WS04. It must be noted that from these results the risk from coal mine gas is considered low risk. The report adds that due to the lack of any recorded concentrations of positive flow, or any significant concentrations of mine gases recorded. It is also stated that the cohesive nature of the shallow soils would act as a barrier to prevent the migration of mine gases.

Despite this, it is recommended that gas protection elements equivalent of Characteristic Situation 2, in accordance with BS8485 are implemented at the development. This is because of the identified risk of a mine openings within the site boundary, the substantial thickness of made ground beneath the site with a sporadic high organic matter contents (up to 19.6 %), a slag heap recorded nearby, and the site is within a radon gas affected area. The report then adds, *'Whilst none of these individual sources mandate the need for gas protection, collectively EPS are of the view that there is a sufficient risk coupled with enough uncertainty to warrant the elective installation of gas protection measures to the equivalent of Characteristic Situation 2'*.

The report also recommends that due to the proven contaminated made ground on-site, a clean soil capping of at least 350mm, or an effective barrier layer (such as a sufficient thickness of concrete) should be used where areas of soft landscaping are due to be implemented in the proposed development.

Having read the report, there are several points which require clarification/and or additional information. For ease, these are addressed point-by-point:

1. In Section 6.2 of the report, we are advised of a '*possible mine opening within the site boundary*' and then referred to elsewhere in the report. However, there is no further information detailed about a possible mine entry on site. This may be considered a pathway for mine gas emissions. As such, we require additional commentary on the possible mine entry, the risk to site-users and whether remedial measures are necessary.
2. The report acknowledges that the Coal Mining Risk Assessment (CMRA) for the site undertaken by Geoinvestigate Ltd on 27th November 2020 (Ref No. G20411) recommended the drilling of several boreholes to a target depth of 30m to assess the workings. However, the maximum depth of the boreholes drilled were 5.25 metres. No justification for this depth has been provided. Further information is necessary.
3. Whilst we acknowledge that gas protection has been recommended, there is some uncertainties with the gas monitoring provided which must be addressed. The ground gas monitoring data was compiled by spot-monitoring on three visits over two weeks. As such, we considered the data to be temporally limited. CIRIA C665 recommends that even in sites of a very low ground gas generation potential with a high sensitivity, a minimum of six readings over three months should be undertaken. Furthermore, the guidance stipulates that at least two sets of readings must be at low (preferably less than 1000mb) and falling pressure. However, only one reading in the study was undertaken at an atmospheric pressure at <1000 mb. Justification is required as to why gas monitoring was limited to a short period of two weeks and three readings as the current report does not appear to be in line with CIRIA C665 guidance.
4. Made ground was reported to '*vary considerably*'. Indeed, a wide range of soil organic matter content values were reported in the samples sent for analysis (0.9% to 19.6%). No discussion has been provided on these values and the assessment of the samples against soil assessment criteria. For instance, was the same soil organic matter content of 6% assumed for all samples despite the variation observed? Further information is required to justify the risk assessment undertaken.
5. We accept that remediation is necessary at the site and that a remedial strategy is provided in Section 6.4 of the report. However, we do not accept the preliminary proposals for 350mm. Due to typical root depths exceeding 600mm and the risks associated with bioturbation moving contaminants throughout the soil column, we consider the proposed depth insufficient for private garden areas. An acceptable minimum total depth of 600mm would be acceptable for clean cover systems within private gardens.

Overall, the Phase I aspect of the report is satisfactory. So, the information provided satisfies the preliminary risk assessment condition previously recommended, and this can now be removed. However, additional information is necessary before we can consider the Phase II aspect of the report further. For these reasons, revised contaminated land conditions are necessary for the Phase II aspect of the investigation onwards (i.e. remediation strategy, implementation and validation).

Electric Vehicle Charging Points

In an application of this nature it is expected that facilities for charging electric vehicles and other ultra-low emission vehicles are provided in accordance with the National Planning Policy Framework and *Air Quality & Emissions Technical Planning Guidance* from the West Yorkshire Low Emissions Strategy Group. A condition requiring charging points is therefore necessary.

Recommended Conditions

Note – Conditions have previously been recommended in our responses dated 26 January and 27 July 2021. These conditions supersede those.

NC7 Ventilation of habitable rooms if windows need to be kept closed - Condition

Before construction commences, a ventilation scheme for rooms where windows need to be kept closed to prevent excessive noise levels shall be submitted to and approved in writing by the Local Planning Authority. The ventilation scheme shall provide the following information -

- Identify which rooms of which plots referenced back to the approved Noise Assessment require a ventilation system
- The acoustic specification of the proposed ventilation system demonstrating that when operated it will not cause indoor noise target levels to be exceeded
- The ventilation Scheme must demonstrate how habitable rooms of the development shall be provided with sufficient ventilation to help control thermal comfort and avoid over heating during hot weather without the need to open windows. This should include details of the air intake location and any summer bypass for any heat recovery system including a calculation for air changes/hour. A Standard Assessment Procedure (SAP) assessment would be acceptable to demonstrate that a risk of overheating is minimised.

All works which form part of the approved scheme shall be completed prior to occupation of the aforementioned plots and retained thereafter.

NF7 - Footnote to accompany condition NC7

A ventilation scheme that meets the performance specification given in Part 6 of Schedule 1 of the Noise Insulation Regulations 1975 is likely to be acceptable. Acoustic trickle ventilation alone is unlikely to provide sufficient ventilation to help control thermal comfort without the need to open windows and would therefore not be acceptable.

BC1 Acoustic Barrier - Condition

Before the development is brought into use, details of an acoustic barrier (as recommended in the Assessment of the Noise Climate at Hebble Court dated 21st of October 2021 Ref APF/C/AFA769) shall be submitted to and approved in writing by the Local Planning Authority. The details shall include -

- A plan showing the location of the barrier
- The minimum height of the barrier relative to the adjacent ground level
- The construction specification of the barrier including the barrier support structure, the barrier material, the minimum barrier thickness, the minimum density of the barrier material and the details where the barrier meets the ground.

The use hereby approved shall not commence until the construction of the acoustic barrier has been completed and the barrier shall be retained thereafter.

CLC2 Submission of a Phase 2 Intrusive Site Investigation Report - Condition

Groundworks (other than those required for a site investigation report) shall not commence until a Phase II Intrusive Site Investigation Report has been submitted to and approved in writing by the Local Planning Authority.

Reason: To ensure the safe occupation of the site in accordance with Policy LP53 of the Kirklees Local Plan and paragraph nos. 178 and 179 of the National Planning Policy Framework

CLC3 Submission of Remediation Strategy - Condition

Where site remediation is recommended in the Phase II Intrusive Site Investigation Report approved pursuant to condition (CLC2) further groundworks shall not commence until a Remediation Strategy has been submitted to and approved in writing by the Local Planning Authority. The Remediation Strategy shall include a timetable for the implementation and completion of the approved remediation measures.

Reason: To ensure the safe occupation of the site in accordance with Policy LP53 of the Kirklees Local Plan and paragraph nos. 178 and 179 of the National Planning Policy Framework

CLC4 Implementation of the Remediation Strategy - Condition

Remediation of the site shall be carried out and completed in accordance with the Remediation Strategy approved pursuant to condition (CLC3). In the event that remediation is unable to proceed in accordance with the approved Remediation Strategy or contamination not previously considered is identified or encountered on site, all groundworks in the affected area (except for site investigation works) shall cease immediately and the Local Planning Authority shall be notified in writing within 2 working days. Works shall not recommence until proposed revisions to the Remediation Strategy have been submitted to and approved in writing by the Local Planning Authority. Remediation of the site shall thereafter be carried out in accordance with the approved revised Remediation Strategy.

Reason: To ensure the safe occupation of the site in accordance with Policy LP53 of the Kirklees Local Plan and paragraph nos. 178 and 179 of the National Planning Policy Framework

CLC5 Submission of Validation Report - Condition

Following completion of any measures identified in the approved Remediation Strategy or any approved revised Remediation Strategy a Validation Report shall be submitted to the Local Planning Authority. No part of the site shall be brought into use until such time as the remediation measures have been completed for the site in accordance with the approved Remediation Strategy or the approved revised Remediation Strategy and a Validation Report in respect of those remediation measures has been approved in writing by the Local Planning Authority.

Reason: To ensure the safe occupation of the site in accordance with Policy LP53 of the Kirklees Local Plan and paragraph nos. 178 and 179 of the National Planning Policy Framework

CLC 7 Contaminated land - Footnote

All contamination reports shall be prepared in accordance with guidance in:

- *Land Contamination Risk Management (LCRM)*
- BS 10175:2011+ A2:2017 *Investigation of Potentially Contaminated Sites. Code of Practice*
- *Development on Land Affected by Contamination - Technical Guidance for Developers, Landowners & Consultants - (v11.2) June 2020* by the Yorkshire and Lincolnshire Pollution Advisory Group

EVC1 Electric Vehicle Charging Points - Condition

Before the electrical system is installed, a scheme detailing the dedicated facilities that will be provided for charging electric vehicles and other ultra-low emission vehicles shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall meet at least the following minimum standard for numbers and power output -

- A Standard Electric Vehicle Charging point providing a continuous supply of at least 16A (3.5kW) for each residential unit that has a dedicated parking space
- One Standard Electric Vehicle Charging Point providing a continuous supply of at least 16A (3.5kW) for at least 10% of residential parking spaces that are not allocated to specific dwellings (i.e. Visitor Parking)

Buildings and parking spaces that are to be provided with charging points shall not be brought into use until the charging points are installed and operational. Charging points installed shall be retained thereafter.

Reason: In the interest of supporting and encouraging low emission vehicles, in the interest of air quality enhancement, to comply with the aims and objectives of Policies LP20, LP24 and LP47 of the Kirklees Local Plan and Chapters 2, 9 and 15 of the National Planning Policy Framework.

EVF1 Electric Vehicle Charging Points – Footnote

- A Standard Electric Vehicle Charging Point is one which is capable of providing a continuous supply of at least 16A (3.5kW) and up to 32A (7kW). The higher output is more likely to be futureproof
- Standard charging points for single residential properties that meet the requirements specified in the latest version of “*Minimum technical specification - Electric Vehicle Homecharge Scheme (EVHS)*” by the Office for Low Emission Vehicles will be acceptable. Basically, charging points that provide Mode 3 charging with a continuous output of least 16A (3.5kW) and have Type 2 socket outlet would be acceptable.
- The electrical supply of the final installation should allow the charging equipment to operate at full rated capacity.
- The installation must comply with all applicable electrical requirements in force at the time of installation.

CSC1 Construction Site Working Times - Condition

Noisy construction related activities shall not take place outside the hours of:

- 07.30 to 18.30 hours Mondays to Fridays

- 08.00 to 13.00 hours, Saturdays
- With no noisy activities on Sundays or Public Holidays

Reason: To safeguard the amenities of the occupiers of nearby properties in accordance with part 15 of the NPPF and **xxxxx** of the Local Plan

CSF1 Construction Sites working times – Footnote

Kirklees Council has powers under Section 60 of the Control of Pollution Act 1974 to control noise from construction sites and may serve a notice imposing requirements on the way in which construction works are to be carried out. It has additional powers under Sections 80 of the Environmental Protection Act 1990 to prevent statutory nuisance including noise, dust, smoke and artificial light and must serve an abatement notice when it is satisfied that a statutory nuisance exists or is likely to occur or recur. Failure to comply with a notice served using the above-mentioned legislation would be an offence for which the maximum fine on summary conviction is unlimited.