

STUART GUY CONSULTING

Report number 13-12-01 verification 2

Date 6th February 2020

Risk Assessment of Soils in gardens 1 & 5 William Close

Donington, Spalding, PE11 4XA

Planning Application No. H04-0967-13 Full

1. Scope of the Risk Assessment

1.1 Under instructions from Herbie Waser of The Hunting Lodge Cottingham Ltd, 1A Crucible Road, Pheonix Parkway, Corby, Northants, NN17 5TS, I have prepared this risk assessment based on the following:

A visit to the site on 17th January 2020

Information on the site from the site owner and developer, Lindsay Fairbairn

Analysis of samples by The Environmental Laboratory Ltd, report number 20-26678, dated 29th January 2020

A letter and photographs of the site being cleared from Patrick Shalbetter of Proway Building Ltd which prepared the ground and built the houses.

1.2 The purpose of this report is to assess whether the soils in these gardens could present a significant risk of harm to the occupiers of the houses or to the environment.

1.3 For more information about this site, please read the earlier reports:

The Environmental Risk Assessment report from Stuart Guy Consulting, 13-12-01, dated 14th January 2013, 13-12-01 Verification, dated 2nd October 2016, 13-12-01 Remediation, dated 16th October 2016

2 Site Visit on 17th January 2020

2.1 The site was visited when the weather was dry and bright. The purpose of the visit was to take samples of soil for analysis and assess if significant risk of harm to occupants of the house and to the environment could be present.

2.2 Two houses are involved, number 5, which is at the entrance to William Close, and number 1, which is on the right of the entry road.

3.3 The garden of house number 5 is very small and comprises a small external strip next to the pavement (photo 1), an area adjacent to the parking area just off the main road that is grassed with a bush to the right (photo 2), a planted area next to the access road and a planted strip just behind the garage (photo 3). Not wishing to disturb the grassed area, the soils around the bush and that in the strip near to the garage were sampled by taking small amounts from multiple sources, mixing and transferring a sample to the glass jar. The soil in the strip beside the garage was about 5 to 10 cm deep and that around the bush was between 2 and 5

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cm deep. Under that very thin layer of soil was very sticky clay. This sample of soil was marked Plot 1, no. 1 (the logic was that house number 1 was plot 1, but logic failed). The surface soil to the road side in the southern part of the garden was also sampled by removing small quantities of soil and mixing, followed by transferring into a glass jar. This was marked Plot 1, no. 2 for the reason already given. The depth of this soil was also very minimal, between 2 and 5 cm deep, with firm sticky clay under.

2.3 The garden of house number 1 is almost non-existent comprising an area next to the conifer boundary with the residence to the west and the road (photo 5) and a planted area between the road and house (photo 6). It is unlikely that anyone will sit next to either 'garden' area, so samples of soil were taken from both areas, mixed and a sample transferred into a glass jar (marked plot 5). The added soil was very thin in that from photo 5, at the most 5 cm and less over much of the area. The added soil in photo 6 was between less than 10 and about 12 cm in depth before clay was encountered. This house had gravel laid all around it, the space at the rear being only about 600 – 700 mm and at the sides 900 -1000mm wide.

3.4 The samples were placed into a cool box containing an ice pack for transport to the office. The cool box (with a new ice pack) was sent by carrier to The Environmental Laboratory Ltd where UKAS accreditation has been obtained for most of the species required. A general suite of heavy metals, speciated total petroleum hydrocarbons (TPH) and speciated polycyclic aromatic hydrocarbons (PAH) for analysis was requested.

3. Analytical Results

3.1 The soils from both houses reported concentrations of metals that were low compared to soil guideline values, where they exist, or compared to those normally found.

3.2 The soils from both houses reported concentrations of TPH that had only minor traces of the heavier fractions.

3.3 The soils from house no. 1 (plot 5) reported very low concentrations of speciated PAH but for house no. 5, the concentration of PAH to the east of the site reported total PAH of 97 mg/kg and benzo(α)pyrene of 7.7 mg/kg.

4 Risk Assessment

4.1 The concrete and tarmac was removed from house no. 5 by Proway and the document appended to this report shows quite clearly the clay which was under the tarmac /concrete present at the second site visit by SGC. Also, there was little or no hardcore under as clay is a stable base on which to lay concrete.

4.2 The soil applied to house number 1 is on a very small area and has no contamination of any concern. The risk of harm to the occupiers of that house and to the environment from the added soil is not significant and the risk is acceptable.

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4.3 The soil added to house number 5 reported no contamination of any concern for the composite sample from the side of the garden adjacent to the road. However, the other composite sample from the side adjacent to the house and from the strip of land in front of the garage reported elevated PAH, with benzo(α)pyrene reported at 7.7 mg/kg. This is nearly twice the Category 4 value, which, by itself, would be of concern. However, as the layer of soil is very thin and the garden covers a very small area, then the exposure is very small. The gravel at the rear is laid directly onto the clay, so even if removed, none of the soil analysed is under it. Therefore, with such small exposure, the risk of harm to the occupiers of the house and to the environment is not significant and the risk is acceptable.

5 Summary

5.1 The soils applied to this site were in very small quantities with only one sample from three exceeding the concentration limit for a species of PAH. Whilst it would have been of concern if the whole garden was covered with this soil and down to some depth, it barely covers the underlying clay. This was corroborated by the builders who did the groundworks.

5.2 The risk of harm to the occupiers of the site from the soils that have been applied is not significant and the risk is acceptable.

5.3 No further investigation or remediation is necessary.

Stuart Guy, BSc, PhD, C Chem, MRSC, C Eng, MIMMM