STUART GUY CONSULTING

Report number 18-02-01 Verification Final Date 17th March 2019

Verification of Remediation of Site of Garages in

Parkside Crescent, Spalding, Lincolnshire, PE11 1RA

Planning Application No. H16-1245-16

1. Background

Two site investigations by Southern Testing indicated the presence of PAHs and benzo(α)pyrene in some of the soil samples that could be of concern to human health. The site has been used more recently for garaging cars and in the past part of the site had railway sidings on it. Therefore, a simple remediation strategy of excavating the rear gardens to approximately 600 mm and replacing with clean fill and soil of good quality (300 mm topsoil) has been adopted.

Communal areas, foundations, paths, etc do not require any remediation.

This report relates to the full site, plots 1 - 10.

2. Evidence for Verification of the Remediation Plan

The evidence consists of:

Photographs of the excavated garden areas with indications of the depth to which they will be filled and calculated areas.
An analytical certificate for the top soil that has been obtained from British Sugar and from analysis of agricultural soil stripped off a site in Whaplode.
Delivery notes for top soil which has been used to replace that excavated from rear garden areas.

3. Evidence relating to top soil

The certificate for the soil collected from British Sugar, Newark, is the pdf document '18-02-01 Nov 2018 British Sugar.pdf' is appended to this report.

The weighbridge and transfer tickets soil deliveries are listed in the pdf document '18-02-01 topsoil tickets', the transfer tickets, dates and weights are as follows in the order in that document:

ticket	date	mass tonnes
14724	09/01/19	18.38
14725	09/01/19	16.04
14726	09/01/19	17.04
14727	10/01/19	17.34
14728	10/01/19	17.82
14336	10/01/19	18.24
	Total	**104.86**

The rear gardens of plots 5 – 10 had topsoil applied that originated from Main Road, Whaplode, where soil from agricultural fields was tested and found to contain very low concentrations of contaminants. The desk study and subsequent soil testing report are appended in the pdf document '17-02-01 Whaplode'.

This soil was transported directly from the stockpiled soil at Whaplode to Spalding, the transfer tickets being in the pdf document '18-02-01 topsoil tickets'. However, the weights are taken from the lorry transducers which are not as accurate as the weighbridge, but adequate for verification.

ticket	date	mass tonnes
14735	25/01/2019	18
14737	29/01/2019	18.5
14738	29/01/2019	18.5
14739	29/01/2019	18.5
14740	29/01/2019	18.5
14741	29/01/2019	18.5
15901	05/02/2019	18.5
15902	05/02/2019	18.5
15903	05/02/2019	18.5
15904	05/02/2019	18.5
15905	05/02/2019	18.5
15912	14/02/2019	18.5
15913	14/02/2019	18.5
15914	14/02/2019	18.5
15915	14/02/2019	18.5
15917	14/02/2019	18.5
15919	15/02/2019	18.5
16047	22/02/2019	15
		329 tonnes

4. Information relating to plots 1 - 4

Photographs 1 – 8 relate to each of plots 1 – 4 and show the excavated depth and area. The following plot sizes and depths of soil replacement were supplied by Peter Pitt of D Brown Building Contractors Ltd (document '18-02-01 e-mails P Pitt.doc'). The volume of soil is multiplied by the approximate density of soil which is 1.2 t m^{-3} to arrive at the mass of soil.

Plot no.	area	depth soil	soil m^3
1	39.0	0.60	23.4
2	23.0	0.61	14.0
3	23.0	0.60	13.8
4	44.0	0.60	26.4
		Total	77.65
		Tonnes	**93.1**

Total soil applied to these gardens is **93.1 tonnes**

The soil to be applied is estimated at about **93** tonnes and **105** tonnes was delivered, this illustrating that sufficient soil was delivered.

5. Information relating to plots 5 - 10

Photographs 11 – 22 relate to each of plots 5 – 10 and the side of plot 10.

The rear gardens of these plots were excavated together with the side garden of no. 10 being a separate application owing to different access.

Plot no.	area	depth soil	soil m^3
5, 6, 7, 8, 9, 10	327.6	0.60	196.6
10 side	42.8	0.60	25.7
			222.2

Total soil applied to these gardens is **311 tonnes**

The soil applied is estimated at about 311 tonnes and 329 tonnes were delivered, this illustrating that sufficient soil was delivered.

6. Summary

Photographs of the four plots show that rear gardens have been excavated and sufficient top soil that is suitable for use in rear gardens has been applied to meet the requirements for plots 1 - 10. The remediation requirement has been met for this site.

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Photo 1 Rear garden of plot 1 showing depth of excavation



Photo 2 Rear garden of plot 1 showing extent of excavation



Photo 3 Rear garden of plot 2 showing depth of excavation



Photo 4 Rear garden of plot 2 showing extent of excavation



Photo 5 Rear garden of Plot 3 showing depth of excavation



Photo 6 Rear garden of plot 3 showing area excavated



Photo 7 Rear garden of plot 4 showing depth of excavation



Photo 8 Rear garden of plot 4 showing area excavated



Photos 9 & 10 Rear garden of plot 5 showing depth and area of excavation



Photo 10



Photos 11 & 12 Rear garden of plot 6 showing depth and area of excavation



Photo 12



Photos 13 & 14 Rear garden of plot 7 showing depth and area of excavation



Photo 14



Photos 15 & 16 Rear garden of plot 8 showing depth and area of excavation



Photo 16



Photos 17 & 18 Rear garden of plot 9 showing depth and area of excavation



Photo 18



Photos 19 & 20 Rear garden of plot 10 showing depth and area of excavation



Photo 20



Photos 21 & 22 Side garden of plot 10 showing depth and area of excavation



Photo 22

