

Remediation and Verification Methods for plots 3 & 4 adjacent to

Alexine, Malting Lane, Donington, Lincolnshire, PE11 4XA

Planning Application No. not known

1. Background

The plots of land are to the front of the bungalow, Alexine, off Malting Lane where most of the ground was hard standing with concrete or tarmac to accommodate lorries being parked. The concrete was extremely clean, the lorries and the small diesel tank had been removed many years before the initial site investigation in 2014 and a minimal soil sampling exercise had indicated that little or no contamination was present. However, the hardcore may have contained heavy metals and polycyclic aromatic hydrocarbons originating from boiler ash and this may be present in small pockets. No volatile hydrocarbons were detected and it is very unlikely that any would exist after such a long time since lorries were parked on site.

Therefore, a simple remediation strategy of removing the hardcore and replacing it with at least 600 mm of clean fill and topsoil was accepted by the land contamination officer for South Holland District Council. Please note that this report should be read in conjunction with SGC reports 13-12-01 Donington, dated 14th January 2014 and 13-12-01 Donington 2nd Phase, dated 2nd October 2016.

2. Remediation and verification

The remediation consists simply of removing all hardcore and soil down to a depth of 600 mm below final ground level in all rear garden areas. Clean fill should then be placed up to 300 mm below final ground level followed by top soil to final ground level. The former should be clean stone from a quarry or recycled materials that have been analysed for potential contaminants. The top soil should be from a certificated source that is approved by the land contamination officer prior to delivery to site.

Verification is a process whereby evidence is accrued for each of the stages of the remediation. Photographs of the excavated rear garden area with visible depth measurements, transfer notes for removal of excavated materials, delivery notes for sub base materials from a reputable quarry and delivery notes for topsoil.

Calculations on areas and depth of fill for both stone and topsoil will give the volumes that need to be applied. Using a density of 1.5 kg m⁻³ for stone and 1.2 kg m⁻³ for soil will convert volumes into weights. Then delivered weights can be compared to estimated requirements for evidence that the remediation has been completed as per the this document.

3. Synopsis

Excavate hardcore and soil down to 600 mm below finished ground level from rear gardens
Keep transfer notes for any excavated materials removed from site

STUART GUY CONSULTING

Report number 13-12-01 Remediation

Date 26th October 2016

Take photographs of excavations with depth measure and plank showing finished ground level

Make ground up to 300 mm below finished ground level with clean stone/gravel

Take photographs of this new level with depth measure and plank

Keep invoices for deliveries of topsoil

Make ground up to finished level with top soil and take photographs of finished gardens

Calculate volumes and then weights of stone/gravel to bring level to 300 mm below finished level (use 1.5 kg m^{-3} for density of stone/gravel)

Calculate volumes and then weights of topsoil to achieve finished ground level (use 1.2 kg m^{-3} for density of topsoil)

Compare weights of stone/gravel and topsoil delivered to those estimated from garden areas and depths – they should be close, but not necessarily the same

Place all the evidence in a final closure report

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