

Asteris Homes Limited

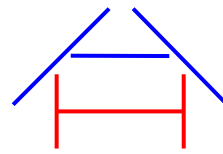
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Proposal for soil remediation at land adjacent to En Casa, Waen Road, Coedpoeth

July 2009

Strictly Confidential

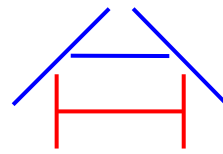
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Background

September 2007 – Planning permission granted by WCBC for pair of semi detached bungalows on garden land adjacent to En Casa, Waen Road, Coedpoeth. Planning reference p/2007/0969

January 2008 – Stage 1 and 2a contamination assessment carried out by Smith Grant LLP on behalf of Asteris Homes Limited. Copy of completed report provided to Angela Guy, WCBC contaminated land officer.

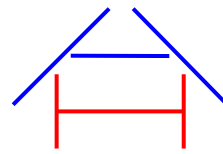
November 2008 - Planning permission granted by WCBC for pair of detached bungalows on garden land adjacent to En Casa, Waen Road, Coedpoeth. Planning reference p/2008/00872.

December 2008 – The site is partitioned and En Casa is sold. The adjacent garden land is retained by Asteris Homes Limited.

Reference information

This report should be read in conjunction with the stage 1 and 2a contamination assessment report produced by Smith Grant LLP in January 2008.

For reference, the key recommendations of the stage 1 and 2a contamination assessment report are reproduced in Appendix I of this document.



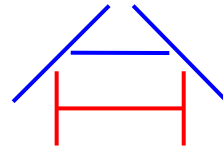
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Additional information

The site plan below is that approved by WCBC as part of planning application p/2008/0872. This shows the location of the new properties, the areas of pedestrian and vehicle access, and the garden areas.



The garden areas are shaded grey.

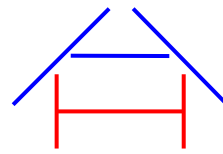


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Trial holes have been dug at points marked 1 to 5 on the site plan.

The table below indicates the depth of soil above the clay base at these points.

Trial hole number	Soil depth (mm)
1	500
2	500
3	250
4	380
5	400



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Proposed remediation strategy

This remediation strategy is driven by the recommendations of the stage 1 and 2a contamination assessment report produced by Smith Grant LLP in January 2008.

Step 1

Remove all soils in the garden areas (as indicated on the site plan) down to the clay base. These soils are to be removed as controlled waste. Copies of waste transfer notes to be provided to WCBC.

Step 2

Testing of the clay base to determine if contaminants are still present. We propose that 3 separate samples are taken.

Step 3a

If the clay base is clean, cover with clean soil back to the original level. Clean soil to be certified as uncontaminated prior to delivery.

Step 3b

If the clay base is not clean and land levels permit, cover with 800mm of clean soil. Clean soil to be certified as uncontaminated prior to delivery.

Step 3c

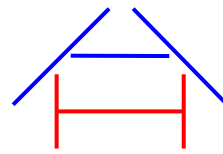
If the clay base is not clean and land levels do not permit, excavate into the clay base to a depth which allows subsequent coverage with 800mm of clean soil. Clean soil to be certified as uncontaminated prior to delivery.

Step 4

A new soil sample to be taken from each garden area and a validation report produced by an independent third party and presented to WCBC.

Timing

It is proposed that the remediation works are carried out at the end of the development, prior to first occupation of the new properties.



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Appendix I – Key recommendations from the stage 1 and 2a contamination assessment report

8.5 The levels of contamination present do not pose a risk to the proposed buildings. However, the levels present are sufficient to present an unacceptable risk to human health for residents exposed to soils and dust or contaminants within or on plants grown for consumption from future garden areas. They may also cause damage or death to sensitive plant species

8.6 It is recommended that remediation comprises either the provision of a clean cover layer or the removal of the existing contaminated soils to expose clean ground. Although the underlying clays may be naturally contaminated the opportunities for exposure via soil ingestion and vegetable uptake would be limited or negated by the physical nature of the ground.

8.7 Contaminated soils should be isolated in garden / landscaped areas by the provision of a minimum of 600mm clean soil cover. Where parts of the property will be exclusively used for pedestrian or vehicle access and the parking of vehicles, then the provision of hard standing / paved surfaces will be sufficient.

8.8 It is envisaged that off-site removal of the contaminated soils may be necessary to accommodate the required clean cover and required final levels. The soils will need to be removed as controlled waste. The chemical analysis results indicate that the soils are likely to be classed as non hazardous.

8.9 Imported cover materials should be certified as uncontaminated prior to delivery. Further validation of chemical quality will be necessary following placement and a completion report should be provided to WCBC.

8.15 Details of the proposed remedial measures, and subsequent validation should be presented to WCBC for agreement prior to the commencement of the development.