

HALTER INN - REMEDIATION AND ENABLING WORKS STRATEGY

The remediation and enabling works strategy has been prepared by Paul Brackenridge based on the recommendations made in the following reports:

1. LK Consult Limited report - Geo-Environmental Investigation Report and Remediation Strategy ref LKC 14 1496
2. Phase II Site Investigation Report prepared by Demeter Environmental Limited ref 25-08-02 Revision 0
3. Phase IIIA Implementation Plan prepared by Demeter Environmental Limited ref 26-01-01 Revision 0

Objectives	The proposed remediation works are required in order to break the pollutant linkages identified during the investigation and risk assessment of the site and in order to ensure the site is "suitable for use".
Remediation and Enabling Works Strategy	1. Watching Brief The investigation works have been completed with the existing Metal Finishing Works building present on site (LKC Ltd) and additional assessment of ground conditions below the footprint of the existing building following demolition (Demeter Environmental). A watching brief should be maintained during site clearance and development works for any unusual ground conditions and visual and / or olfactory evidence of hydrocarbon contamination. The watching brief should be carried out by a suitably qualified person. Confirmation that the ground conditions below the existing building were similar to those identified in the intrusive investigation carried out by LKC 2. Clean Capping Layer in all Garden and Soft Landscaping Areas Due to the elevated levels of arsenic and lead in the made ground across site, it is recommended that all garden and soft landscaping areas on the site are installed with a clean capping layer. The capping layer in garden and landscaped areas should be as a minimum: - All private garden areas: at least 600mm thick, clean capping layer including sufficient topsoil for a growing medium underlain by a geotextile. - Any areas of open soft landscaped: 300mm thick, clean capping layer including sufficient topsoil for a growing medium underlain by a geotextile. Depending on proposed site levels the capping layer may be placed directly on existing soils or may be accommodated by the excavation of an appropriate depth of soil and removal off-site. If any material from the site is required to be removed off site to accommodate the installation of the capping layer, then copies of the analytical results from the site investigation report will be provided to the landfill facility. Copies of all waste transfer notes for the removal of the material will be retained and copies provided for inclusion within the site Validation / Completion Report. 3. Water Mains Water mains are to be specified as barrier pipe 4. Ground Gases Six gas monitoring visits have been undertaken and maximum concentrations of 0.2%v/v carbon dioxide and <0.1%v/v methane have been recorded with no positive flow detected. A worst gas screening value of 3.5E-03 l/hr was

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calculated, characterizing the site as Characteristic Situation 1/Green. Therefore, no specific remediation is required with respect to gas risk.

However the developer has asked for a Full Gas Radon membrane be installed in all three plots.

4. Validation

Validation works of the site will be undertaken both during, on completion of and in post remediation works.

- Validation of any Unexpected Contamination Removal

In the event unexpected contamination be encountered then the investigation works undertaken to assess the nature of the contamination will be documented in the Validation / Site Completion report.

- Validation of Imported Materials

Incoming soil material for use on the site will be chemically validated prior to importation. All Imported material will have the required testing to ensure it is 'suitable for use' in gardens.

- Validation of Depth of Capping Layer

Validation of depth and composition of the capping layer in all the garden and soft landscaped areas will be undertaken. The depth and composition of the capping layer will be validated at one point in the front and rear in each garden and at two points in any areas of soft landscaping.

Copies of the photographs and a description of the cover system will be provided as part of the site Validation / Completion Report.

- Protective Water Pipes

All copies of correspondence with the relevant Utilities provider along with the specification of services pipes installed will be provided to the Local Authority as part of the Remediation Validation Report.

- Ground Gases

Copies of the photographs of the gas membrane installation will be provided as part of the site Validation / Completion Report.