

## **REMEDIATION METHOD STATEMENT**

## **PROPOSED REDEVELOPMENT:**

# CHALCOT HOUSE, 59.5 NETHERHALL GARDENS, LONDON NW3 5RE



Client: LANDMARK BUILD LTD

Little Northcote Farm Burrington, Umberleigh

**EX37 9LZ** 

Architects D-RAW STUDIOS LTD

3 Regina House, 65 Wimpole Street

London, W1G 8AN

Report ref: 10578A/JRCB

Date: 2<sup>nd</sup> May 2023 (Rev0)

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## **DOCUMENT ISSUE STATUS:**

Issue	Date	Description	Author	Checked/approved
Rev 0	02/05/2023	First issue	Alan Watson BSc (Eng), CEnv, CEng, MICE	John Bartley BSC, MSc, CGeol, FGS

This investigation has been undertaken within the constraints of the client's instruction/contract, together with those set out in the 'General information, limitations and exceptions' section at the end of this report. The SCL 'Standard Terms of Appointment' are also included at the end of this report and these identify the contractual arrangements for the investigation. Conclusions or recommendations made in this report are limited to those which can be reasonably based upon the research and/or intrusive investigation work carried out. Any comments which rely on third-party information which has been provided to us are made in good faith and on the assumption that such information is accurate. SCL have not carried out independent validation of any third-party information.

Soil Consultants Ltd (SCL) has prepared this Report for the Client in accordance with the Terms of Appointment under which our services were performed. With respect to third parties, no other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us. This Report may not be relied upon by any other party without the prior and express written agreement of SCL.



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- Camden planning decision
- Results of contamination analyses



## 1.0 INTRODUCTION AND BRIEF

Consideration is being given to the demolition of this existing property with subsequent construction of a new residential house. A site investigation was undertaken by Soil Consultants Ltd (SCL) in 2021 (Ref: 10578/OT, 11/02/21) which included a Stage 1 Tier 1 Preliminary Risk Assessment, intrusive borehole and trial pit investigation, geotechnical and contamination laboratory testing and a Stage 1 Tier 2 Generic Quantitative Risk Assessment (GQRA).

The 2021 investigation identified exceedances of lead in two shallow samples of topsoil/made ground. In the refined Conceptual Site Model (CSM), these lead exceedances were identified as potential contamination linkages using the source-pathway-receptor model, with construction workers and the end-user being the affected receptors. Additional sampling and testing were recommended to allow more detailed characterisation of the lead concentrations of the shallow soils.

The project was submitted for planning to the London Borough of Camden and this was granted subject to a number of conditions (Camden Ref: 2021/4884/P, 05/01/23); this document is included in the Appendix. Condition 10 related to the lead exceedances and stated:

Part A: No development shall commence until further assessment of the risk posed by lead in the soils at the site is undertaken and the findings are submitted to and approved in writing by the local planning authority. The work must be carried out in compliance with LCRM (2020) and by a competent person.

Subsequent parts if/where required following the completion of Part A:

Part B: No development shall commence until a remediation method statement (RMS) is submitted to and approved in writing by the local planning authority. This statement shall detail any required remediation works and shall be designed to mitigate any remaining risks identified in the approved quantitative risk assessment. This document should include a strategy for dealing with previously undiscovered contamination. All works must be carried out in compliance with LCRM (2020) and by a competent person.

Part C: Following the completion of any remediation, a verification report demonstrating that the remediation as outlined in the RMS have been completed should be submitted to, and approved in writing, by the local planning authority. This report shall include (but may not be limited to): details of the remediation works carried out; results of any verification sampling, testing or monitoring including the analysis of any imported soil and waste management documentation. All works must be carried out in compliance with LCRM (2020) and by a competent person.

Reason: To ensure the risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors, in accordance with policies G1, D1, A1, and DM1 of the London Borough of Camden Local Plan 2017.

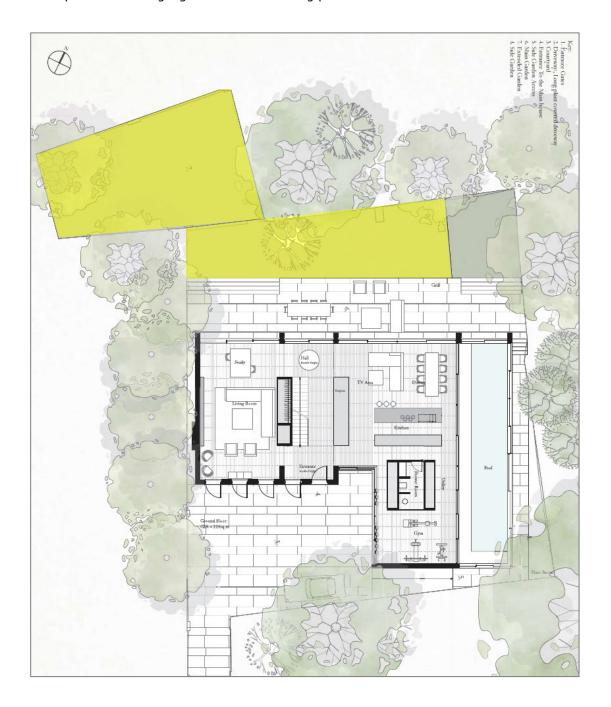
This report summarises the sampling strategies and the results of the laboratory testing. It then provides remediation strategy to ensure that the lead contamination is suitably addressed and the risks to the receptors are mitigated.



## 2.0 SITE DESCRIPTION AND PROPOSED DEVELOPMENT

The existing property is located in the Hampstead Conservation Area and consists of a 2-storey dwelling with a single storey annex. A raised lawn and patio area is present to the rear of the house with an extended garden area in the north-wester corner. A full site description is provided in the SCL 2021 report.

The proposed redevelopment comprises the demolition of the existing structures and construction of a new 2- to 3-storey house incorporating a swimming pool in a single storey enclosure. Some garden areas are to be preserved as highlighted on the following plan:

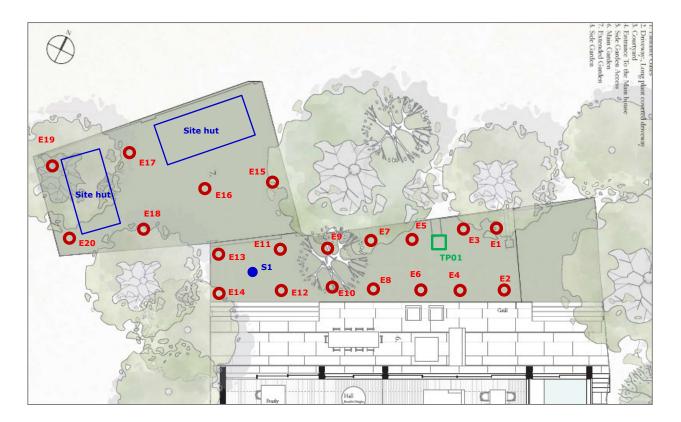




# 3.0 SUMMARY OF SHALLOW SAMPLING AND LABORATORY TEST RESULTS

The 2021 investigation included sampling of the shallow soils and analysis for a general suite of common contaminants. Lead exceedances with respect to residential end use with plant uptake were measured in samples from one of the trial pits (TP1) and a shallow sampling point (S1) - to assess the lead concentrations, the DEFRA C4SL level of 200mg/kg has been used. The concentrations measured in these 2021 samples varied between 275mg/kg and 1060mg/kg (see Appendix for laboratory results sheets).

In response to the requirements of the planning condition, a second visit was made to site in March 2023 and 20 samples were recovered from a depth of 0.20m. The following plan shows the locations of the 2021 and 2023 sampling points:



The results of the latest analyses on the 2023 samples are included in the Appendix. These showed exceedances in 19 out of the 20 samples and measured concentrations are summarised as follows:

Range of results: 95mg/kg to 3040mg/kg

Mean of the results: 1019mg/kg



### 4.0 REMEDIATION STRATEGY

The intrusive investigations and laboratory testing have identified a potential pollutant linkage between the lead concentrations in the shallow soils and the end-user, with risks of direct contact/ingestion in garden areas. The analyses of the soil samples have indicated relatively widespread lead contamination with >95% demonstrating exceedance in relation to the relevant C4SL threshold level. Potential risks to construction workers will also need to be addressed.

The proposed strategy for mitigating the risks of elevated lead concentrations is described below.

### 4.1 Options Appraisal/Selection

In terms of protecting human health (end users, ground workers and landscape planting), it is considered that source removal will present the most effective mitigation action, thus breaking the potential pollutant linkage. This removal will need to take place in all proposed garden areas.

## 4.2 Removal of topsoil/made ground and validation

The following strategy should be followed:

- > Remove all topsoil and, where present, made ground to a depth of 0.60m below finished levels in the proposed garden areas
- The 2021 SCL investigation encountered the natural soils at depths of between 0.30m and >0.7m. There will be no need to remove <u>clearly identifiable</u> natural soils and if these are encountered within the 0.60m depth they can remain in-situ
- The exposed ground within the excavation should be inspected and photographed to ensure that the appropriate thickness of soil has been removed in all areas prior to placement of the clean topsoil. Photographs, measured thicknesses and surveyed levels of the excavation formation should be retained by the main contractor for validation purposes and these should be incorporated into a verification report to be produced on completion of the ground works. Waste transfer certificates related to spoil disposal should also be collated and presented as part of this work.

## 4.3 Strategy for dealing with previously undiscovered ground contamination

The investigation has provided general coverage of the areas of the site accessible at the time of investigation and it is self-evident that there may be zones of contamination within the site which were not encountered. A careful watching brief should be kept during construction to ensure that any potentially contaminated soil encountered is disposed of in a safe and controlled manner. Site workers should observe normal hygiene precautions when handling soils and if material suspected of being contaminated is identified during construction, this should be set aside under protective cover and further tests undertaken to verify the nature and levels of contamination present. If contamination is present, a full site reassessment may be required and a contingency should be in place in this regard.

### 4.4 Replacement with certified clean topsoil

Following the removal of existing soil, the imported replacement, certified clean topsoil/subsoil should then be placed to ensure that appropriate cover is provided in relation to the finished levels. For any soils



(topsoil/subsoil) imported as part of the development, the client should obtain a detailed declaration, including laboratory testing results, from the chosen supplier(s) for approval. Laboratory certificates provided by the supplier(s) should be assessed for compliance with an appropriate specification for the works, industry good practice and relevant residential (with home grown produce C4SL and/or S4UL) and landscape planting GAC (ie BSI 2015). Once the supplier(s) has been selected, then a sampling regime based on the requirements of the local authority will be implemented as follows:

- > One sample of imported soil (topsoil/subsoil) per source will be sampled and tested for independent source validation from the first load(s) delivered to the site
- In addition, for each source, after placement, one sample per 50m<sup>3</sup> or one sample per landscaped area (including any soils placed in paved landscaped areas) will be sampled and tested for routine monitoring purposes of the source(s)

The testing regime and imported soil criteria above set out a minimum requirement to be achieved. Depending on the nature of the source(s) selected it may be necessary to increase the rate of sampling and/or the scope of testing required. If deemed necessary, this will be set out in the validation report. The imported soil testing results will be compared against the GAC for residential (with home grown produce) scenarios. The main contractor should provide documentation (eg delivery notes) indicating the volume and/or number of loads delivered and should record the location and depth of placement achieved; this should include photographic records with scale demonstrating the depth of placement.

### 4.5 Disposal of excavated soils

The soils will need to be disposed of to a suitably licensed site. The elevated lead levels may result in an onerous waste disposal classification and early consultations should be made with appropriate waste facilities or regulators to confirm the off-site disposal requirements. The main contractor must keep records and photographs of soil that is taken off site. Waste transfer tickets should be obtained along with a record of the waste disposal site location, all to be retained in the project file for incorporation in the validation report.

### 4.6 Construction workers

Construction workers should wear appropriate PPE for the identified lead concentrations (including as a minimum protective gloves and overalls) and suitable working practices and hygiene precautions should be adopted.



## **GENERAL INFORMATION, LIMITATIONS AND EXCEPTIONS**

Unless otherwise stated, our Report should be construed as being a Ground Investigation Report (GIR) as defined in BS EN1997-2. Our Report is not intended to be and should not be viewed or treated as a Geotechnical Design Report (GDR) as defined in EN1997-2. Any 'design' recommendations which are provided are for guidance only and are intended to allow the designer to assess the results and implications of our investigation/testing and to permit preliminary design of relevant elements of the proposed scheme.

The methods of investigation used have been chosen taking into account the constraints of the site including but not limited to access and space limitations. Where it has not been possible to reasonably use an EC7 compliant investigation technique we have adopted a practical technique to obtain indicative soil parameters and any interpretation is based upon our engineering experience and relevant published information.

The Report is issued on the condition that Soil Consultants Ltd will under no circumstances be liable for any loss arising directly or indirectly from ground conditions between the exploratory points which differ from those identified during our investigation. In addition, Soil Consultants Ltd will not be liable for any loss arising directly or indirectly from any opinion given on the possible configuration of strata between the exploratory points, below the maximum depth of the investigation or where site conditions have changed since the exploratory work; such opinions, where given, are for guidance only and no liability can be accepted as to their accuracy. The results of any measurements taken may vary spatially or with time and further confirmatory measurements should be made after any significant delay in using this Report.

Comments made relating to groundwater or ground-gas are based upon observations made during our investigation unless otherwise stated. Groundwater and ground-gas conditions may vary with time from those reported due to factors such as seasonal effects, atmospheric effects and and/or tidal conditions. We recommend that if monitoring installations have been included as part of our investigation, continued monitoring should be carried out to maximise the information gained.

Specific geotechnical features/hazards such as (but not limited to) areas of root-related desiccation and dissolution features in chalk/soluble rock can exist in discrete localised areas - there can be no certainty that any or all of such features/hazards have been located, sampled or identified. Where a risk is identified the designer should provide appropriate contingencies to mitigate the risk through additional exploratory work and/or an engineered solution.

Where a specific risk of ground dissolution features has been identified in our Report (anything above a 'low' risk rating), reference should be made to the local building control to establish whether there are any specific local requirements for foundation design and appropriate allowances should be incorporated into the design. If such a risk assessment was not within the scope of our investigation and where it is deemed that the ground sequence may give rise to such a risk (for example near-surface chalk strata) it is recommended that an appropriate assessment should be undertaken prior to design of foundations.

Where spread foundations are used, we recommend that all excavations are inspected and approved by suitably experienced personnel; appropriate inspection records should be kept. This should also apply to any structures which are in direct contact with the soil where the soil could have a detrimental effect on performance or integrity of the structure.

Ground contamination often exists in small discrete areas - there can be no certainty that any or all such areas have been located, sampled or identified.

The findings and opinions conveyed in this Report may be based on information from a variety of sources such as previous desk studies, investigations or chemical analyses. Soil Consultants Limited cannot and does not provide any guarantee as to the authenticity, accuracy or reliability of such information from third parties; such information has not been independently verified unless stated in our Report. No liability will be accepted for changes to the ground and groundwater conditions which occur post investigation.

Our Report is written in the context of an agreed scope of work between Soil Consultants Ltd and the Client and should not be used in any different context. In light of additional information becoming available, improved practices and changes in legislation, amendment or re-interpretation of the assessment or the Report in part or in whole may be necessary after its original publication.

Unless otherwise stated our investigation does not include an arboricultural survey, asbestos survey, ecological survey or flood risk assessment and these should be deemed to be outside the scope of our investigation.

We will identify tree and plant species if possible, but a suitably qualified arboriculturalist/botanist should be consulted to provide definitive identification.

Where reference to 'topsoil' is made, this should be construed as any turf (if present) plus any obvious organic-rich/humic layer of soil beneath, which may or may not contain roots/rootlets. Unless otherwise requested, we do not provide a detailed description, undertake sampling/testing for classification purposes or provide a specific classification. The thickness of the 'topsoil' identified on our exploratory hole records is indicative only and should not be used for detailed volume or site strip calculations.



### STANDARD TERMS OF APPOINTMENT OF SOIL CONSULTANTS LTD FOR GEOTECHNICAL SERVICES

- 1 Unless previously withdrawn, our offer remains valid for a period of sixty days from date of offer. If an instruction is given after the sixty days we reserve the right to reasonably adjust any cost associated with the project to reflect any variance on the original offer. In placing an instruction to proceed with exploratory work, whether directly from the Client or Client's representative, the Client is deemed to have accepted our Terms of Appointment.
- Our offer is on the basis that free, unhindered access and working conditions are available and that the investigation can be completed in one visit, if applicable. Delays beyond our control will incur additional charges. If additional works outside our offer are required to facilitate the investigation these will be advised and any costs will be passed on to the Client.
- In our quotation we will provide an estimate of any mobilisation period following an instruction to proceed. This estimate will be accurate at the time of quotation, but it should be noted that the mobilisation period may vary at a later date due to factors such as sub-contractor availability and workload.
- In commissioning this work, the Client has a responsibility for the health, safety and welfare of operatives invited to undertake work on their site. The Client shall indemnify us in respect of any failure to fulfil their obligations in connection with all relevant and current Health and Safety Regulations.
- The methods of investigation used have been chosen taking into account the constraints of the site including but not limited to access, space and budgetary limitations. Where it has not been possible to reasonably use an EC7 compliant investigation technique, or where a non-compliant technique has been specified, we will adopt practical and appropriate techniques to obtain indicative soil parameters.
- 6 Unless otherwise stated, our Report should be construed as being a Ground Investigation Report (GIR) as defined in BS EN1997-2. Our Report is not intended to be and should not be viewed or treated as a Geotechnical Design Report (GDR) as defined in BS EN1997-2. Any interpretation which is provided is for guidance only and must not be regarded as design or design recommendation.
- Where excavation is required as part of the exploratory work, the Client shall provide drawings or plans showing accurate and complete locations of all underground services and structures. In performing our service, we shall take reasonable precautions to avoid damage to underground services or structures. We will not be responsible for any damage caused to underground services or structures and will not be liable for any claims for damage, expenses arising or losses unless the location of all underground services or structures are accurately shown on drawings and those plans have been provided to us in good time prior to commencement of the exploratory work. Risk to the Client can be further reduced by undertaking a scan of the site using a specialist underground scanning service which would be intended to identify traceable services at shallow depth.
- With some sites, especially those in certain areas of London and other large towns and cities, there may be a risk of unexploded ordnance (UXO) being present. Unless otherwise stated our offer is on the basis that the Client or their representative provides a preliminary UXO risk assessment for the site. It should be noted that if the site is deemed to be in an area of risk then further measures will be required. These would normally comprise either a more detailed risk assessment and/or specialist site attendance by an EOD engineer. These measures can be commissioned either by the Client or Soil Consultants Ltd. If the Client requires, we would be pleased to obtain a preliminary risk assessment at cost+10%.
- The Client will supply a site plan (to a rational scale), an indication of the scope and type of the proposed development and an indication of any relevant structural loading information.
- 10 Should the Client terminate the contract after instruction, we reserve the right to recover costs associated to work carried out between the time of instruction and the point of termination. Cancellation fees, and material costs shall be charged at cost plus 20% (+VAT). Engineer/technician time shall be charged at £95+VAT per hour and principal consultant/director time shall be charged at £125+VAT per hour.



- The Report is issued on the condition that Soil Consultants Ltd will under no circumstances be liable for any loss arising directly or indirectly from ground conditions between the exploratory points which differ from those identified during the investigation. In addition Soil Consultants Ltd will not be liable for any loss arising directly or indirectly from any opinion given on the possible configuration of strata both between the exploratory points and/or below the maximum depth of the investigation; such opinions, where given, are for guidance only and no liability can be accepted as to their accuracy. The results of any measurements taken may vary spatially or with time and further confirmatory measurements should be made after any significant delay in using this Report.
- 12 If and when instructed, an agreed number of contamination tests will be carried out to give an <u>outline assessment</u> of potential contaminants. In some circumstances it may be necessary to recommend further monitoring, contamination testing and assessment and the scope of this work would be agreed with the Client. Notwithstanding this additional scope, local regulatory authorities may have specific requirements which need to be addressed. Unless otherwise agreed or stated our reporting will constitute neither a Quantitative Risk Assessment nor a Remediation Statement or Strategy.
- 13 Our reports are counter-checked by one of our suitably qualified and experienced engineers/geologists.
- 14 Notwithstanding anything to the contrary contained in these terms, our liability under or in connection with these terms whether in contract or in tort, in negligence, for breach of statutory duty or otherwise (other than in respect of personal injury or death) shall not exceed the sum equivalent to ten times our contract fee or £100,000 whichever is less in the aggregate for geotechnical and environmental matters unless otherwise agreed.
- 15 Without prejudice to any other exclusion or limitation of liability, damages, loss, expense or costs our liability for any claim or claims under this agreement be further limited to such sum as it would be just and equitable for us to pay having regard to the extent of our responsibility for the loss or damage giving rise to such claim or claims ("the loss and damage") and on the assumptions that:
  - (a) All other consultants, contractors, sub-contractors, project managers or advisers engaged in connection with the Project have provided contractual undertakings to the Client on terms no less onerous than those set out in the original contracts in respect of the carrying out of their obligations in connection with the Project; and
  - (b) There are no exclusions of or limitations of liability nor joint insurance or co-insurance provisions between the Client and any other party referred to in this clause and any such other party who is responsible to any extent for the loss and damage is contractually liable to the Client for the loss and damage; and
  - (c) All such other consultants, contractors, sub-contractors, project managers or advisers have paid to the Client such proportion of the loss or damage which it would be just and equitable for them to pay having regard to the extent of their responsibility for the loss and damage.
- Further and notwithstanding anything to the contrary contained in this agreement and without prejudice to any provision in this agreement whereby liability is excluded or limited to a lesser amount, our liability under or in connection with this agreement whether in contract or in tort, in negligence, for breach of statutory duty or otherwise for any claim shall not exceed the amount, if any, recoverable by us by way of indemnity against the claim in question under professional indemnity insurance taken out by us and in force at the time that the claims or (if earlier) circumstances that may give rise to the claim is or are reported to the insurers in question. The limitation shall not apply if no such amount is recoverable due to us having been in breach of our obligations or the terms of any insurance maintained in accordance therewith or having failed to report any such claim or circumstances to the Insurers in question timeously.



- Whilst our investigation may include asbestos screening/quantification on selected samples, this must not be deemed to constitute a full asbestos survey or be taken as sufficient to definitively identify the presence or quantity of asbestos within or on the ground. We will not accept responsibility if asbestos is encountered during any subsequent construction or development works and in placing a contract with us the Client accepts this condition. Where the fabric of a building is to be disturbed, the Client shall provide an appropriate asbestos survey to us prior to exploratory work and make adequate provision to allow us to provide relevant protective/remedial measures to progress the work safely.
- The Client agrees that they shall not bring any claim personally against any director/employee of Soil Consultants
  Ltd or consultant to us in respect of loss or damage suffered by the Client arising out of this contract.
- Our appointment shall be under simple agreement and our liability under this contract shall be for a period of six years from date of appointment.
- Our reports are non-assignable and are prepared for the benefit of the Client. No reliance can be assumed by others without written agreement from Soil Consultants Ltd. We will provide a letter of reliance at our discretion and this will be subject to payment of our fee, which will be 10% of contract value, subject to a minimum fee of £750 plus VAT. The terms of our letter of reliance are non-negotiable and the beneficiary should be aware that the information shall only apply to the scheme for which the report was originally produced and the original rights and benefits will apply.
- A VAT invoice (at current rate) will be presented in respect of the work undertaken. Payment of our account is to be made within twenty-eight days of issue of our invoice unless otherwise agreed. On no account shall payment be on a 'pay-when-paid' basis. The information contained within our report remains the property of Soil Consultants Ltd and no reliance may be assumed by any party with an interest in the project until payment has been received in full. After one calendar month interest shall be chargeable at 10% above the Bank of England Rate and compensation claimed in accordance with 'Late Payments of Commercial Debts (Interest) Act 1998 and subsequent revisions. If the debt is referred to a debt collection agency then we have the right to recover associated fees under the terms of our contract.



# **APPENDIX**

- Camden planning decision
- Results of contamination analyses



Application ref: 2021/4884/P Contact: Jaspreet Chana Tel: 020 7974 1544

Date: 5 January 2023

Planning Sense Ltd 19 St Johns Court Beaumont Avenue St Albans AL1 4TS United Kingdom



**Development Management** Regeneration and Planning London Borough of Camden

Town Hall Judd Street London WC1H 9JE

Phone: 020 7974 4444 <u>planning@camden.gov.uk</u> www.camden.gov.uk/planning

Dear Sir/Madam

# FOR INFORMATION ONLY - THIS IS NOT A FORMAL DECISION

Town and Country Planning Act 1990 (as amended)

# **DECISION SUBJECT TO A SECTION 106 LEGAL AGREEMENT**

Address:

59 And A Half Netherhall Gardens London NW3 5RE

# Proposal:

Demolition of existing dwelling and construction of replacement dwelling with associated landscaping

Drawing Nos: R013-A5, R015-A5, R-101-A5, R-111-A5, R-121-A5, R-212-A5, R-223-A5, R-233-A5, R-311-A5, R-321-A5, RC-101-A5, RC-111-A5, RC-121-A5, RC-212-A5, RC-223-A5, RC-233-A5, RC-311-A5, RC-321-A5, A-010-A11, A-013-A11, A-101-A11, A-111-A11, A-121-A11, A-211-A11, A-212-A11, A-222-A11, A-222-A11, A-231-A11, A-231-A11, A-242-A11, A-311-A11, Design & Access Statement Rev: September 2022, Basement Impact Assessment ref no. 20071-SLL-00-XX-BIA-S-002 dated 27 April 2021, Site Investigation Report by Soil Consultants ref no. 10578-0T 11 Feb 2021, Structural report for planning by structures Lab Ltd ref no. 20071-SLL-00-XX-RE-S-001 26 May 2021, Construction management plan by the Quoin Consultancy erf Q5259 June 2021, Arboriculture Impact Report ref no. 210630 rev 2 10 Feb 2021, Surface water management ref: CCE-ZC251-PL-RP-01 May 2021, Site photographs, Basement Impact Assessment by Structures Lab Ltd ref: 20071-sll-00-xx-bia-s-002 dated 30 Nov 2022, Basement Impact Assessment Addendum by Soil Consultants ref. SCL 10578-JRCB Issue 2 dated 14 Dec 2022, Law Society Property Information form 3rd edition, Basement Impact Assessment Audit Revision: F1 December 2022, Overheating Analysis ref: 5908 22/07/2021, Sustainability statement ref: 6280 23/07/2021, RFO vs NC Comparison Chalcot House ref: 5908 23/07/2021, Assessment ref: 5908 22/07/2021, Environmental Noise Survey Report 22/06/2021, Condition & Feasibility Report: 20071-SLL-00-XX-RE-S-003 25/03/2022, Planning and heritage statement.

The Council has considered your application and decided to grant permission subject to the conditions and informatives (if applicable) listed below **AND** subject to the successful conclusion of a Section 106 Legal Agreement.

The matter has been referred to the Council's Legal Department and you will be contacted shortly. If you wish to discuss the matter please contact **Aidan Brookes** in the Legal Department on **020 7 974 1947**.

Once the Legal Agreement has been concluded, the formal decision letter will be sent to you.

# Condition(s) and Reason(s):

- 1 The development hereby permitted must be begun not later than the end of three years from the date of this permission.
  - Reason: In order to comply with the provisions of Section 91 of the Town and Country Planning Act 1990 (as amended).
- 2 The development hereby permitted shall be carried out in accordance with the following approved plans: R013-A5, R015-A5, R-101-A5, R-111-A5, R-121-A5, R-212-A5, R-223-A5, R-233-A5, R-311-A5, R-321-A5, RC-101-A5, RC-111-A5, RC-121-A5, RC-212-A5, RC-223-A5, RC-233-A5, RC-311-A5, RC-321-A5, A-010-A11, A-013-A11, A-101-A11, A-111-A11, A-121-A11, A-211-A11, A-212-A11, A-222-A11, A-222-A11, A-231-A11, A-231-A11, A-242-A11, A-311-A11, Design & Access Statement Rev: September 2022, Basement Impact Assessment ref no. 20071-SLL-00-XX-BIA-S-002 dated 27 April 2021, Site Investigation Report by Soil Consultants ref no. 10578-0T 11 Feb 2021, Structural report for planning by structures Lab Ltd ref no. 20071-SLL-00-XX-RE-S-001 26 May 2021, Construction management plan by the Quoin Consultancy erf Q5259 June 2021, Arboriculture Impact Report ref no. 210630 rev 2 10 Feb 2021, Surface water management ref: CCE-ZC251-PL-RP-01 May 2021, Site photographs, Basement Impact Assessment by Structures Lab Ltd ref: 20071-sll-00-xx-bia-s-002 dated 30 Nov 2022, Basement Impact Assessment Addendum by Soil Consultants ref. SCL 10578-JRCB Issue 2 dated 14 Dec 2022, Law Society Property Information form Basement Impact Assessment Audit Revision: F1 December 2022, 3rd edition. Overheating Analysis ref: 5908 22/07/2021, Sustainability statement ref: 6280 23/07/2021, RFO vs NC Comparison Chalcot House ref: 5908 23/07/2021, Energy Assessment ref: 5908 22/07/2021, Environmental Noise Survey Report 22/06/2021, Condition & Feasibility Report: 20071-SLL-00-XX-RE-S-003 25/03/2022, Planning and heritage statement.

## Reason:

For the avoidance of doubt and in the interest of proper planning.

- 3 Before the relevant part of the work is begun, detailed drawings, or samples of materials as appropriate, in respect of the following, shall be submitted to and approved in writing by the local planning authority:
  - a) Details including sections at 1:10 of all windows (including jambs, head and cill), ventilation grills, external doors and gates;

b) Manufacturer's specification details of all facing materials (to be submitted to the Local Planning Authority) and samples of those materials (to be provided on site).

The relevant part of the works shall be carried out in accordance with the details thus approved and all approved samples shall be retained on site during the course of the works.

Reason: To safeguard the appearance of the premises and the character of the immediate area in accordance with the requirements of policy D1 and D2 of the London Borough of Camden Local Plan 2017.

- 4 Prior to commencement of development, full details in respect of the living roof in the area indicated on the approved roof plan shall be submitted to and approved by the local planning authority. The details shall include
  - i. a detailed scheme of maintenance
  - ii. sections at a scale of 1:20 with manufacturers details demonstrating the construction and materials used showing a variation of substrate depth with peaks and troughs
  - iii. full details of planting species and density

The living roofs shall be fully provided in accordance with the approved details prior to first occupation and thereafter retained and maintained in accordance with the approved scheme.

Reason: In order to ensure the development undertakes reasonable measures to take account of biodiversity and the water environment in accordance with policies G1, CC1, CC2, CC3, D1, D2 and A3 of the London Borough of Camden Local Plan 2017.

Before the development commences, details of secure and covered cycle storage area for 2 cycles shall be submitted to and approved by the local planning authority. The approved facility shall thereafter be provided in its entirety prior to the first occupation of any of the new units, and permanently retained thereafter.

Reason: To ensure the development provides adequate cycle parking facilities in accordance with the requirements of policy T1 of the London Borough of Camden Local Plan 2017.

Before the development commences, details of 1 Electric Vehicle Charging Point (EVCP) to be added to the site, shall be submitted to and approved by the local planning authority. The approved facility shall thereafter be provided in its entirety prior to the first occupation of any of the new units, and permanently retained thereafter.

Reason: To ensure the development provides adequate cycle parking facilities in accordance with the requirements of policy T1 of the London Borough of Camden Local Plan 2017.

Prior to first occupation of the buildings, detailed plans showing the location and extent of photovoltaic cells to be installed on the building shall have been submitted to and approved by the Local Planning Authority in writing. The measures shall include the installation of a meter to monitor the energy output from the approved renewable energy systems. The cells shall be installed in full accordance with the details approved by the Local Planning Authority and permanently retained and maintained thereafter.

Reason: To ensure the development provides adequate on-site renewable energy facilities in accordance with the requirements of Policy G1, CC1 and CC2 of the London Borough of Camden Local Plan 2017.

8 Before the development commences, details of the location, design and method of waste storage and removal including recycled materials, shall be submitted to and approved by the local planning authority in writing. The facility as approved shall be provided prior to the first occupation of any of the new units and permanently retained thereafter.

Reason: To ensure that sufficient provision for the storage and collection of waste has been made in accordance with the requirements of policy CC5, A1, A4 and TC4 of the London Borough of Camden Local Plan 2017.

All hard and soft landscaping works shall be carried out in accordance with the approved landscape details [by not later than the end of the planting season following completion of the development or any phase of the development] [prior to the occupation for the permitted use of the development or any phase of the development], whichever is the sooner. Any trees or areas of planting (including trees existing at the outset of the development other than those indicated to be removed) which, within a period of 5 years from the completion of the development, die, are removed or become seriously damaged or diseased, shall be replaced as soon as is reasonably possible and, in any case, by not later than the end of the following planting season, with others of similar size and species, unless the local planning authority gives written consent to any variation.

Reason: To ensure that the landscaping is carried out within a reasonable period and to maintain a high quality of visual amenity in the scheme in accordance with the requirements of policies A2, A3, A5, D1 and D2 of the London Borough of Camden Local Plan 2017.

10 Part A: No development shall commence until further assessment of the risk posed by lead in the soils at the site is undertaken and the findings are submitted to and approved in writing by the local planning authority. The work must be carried out in compliance with LCRM (2020) and by a competent person.

Subsequent parts if/where required following the completion of Part A:

Part B: No development shall commence until a remediation method statement (RMS) is submitted to and approved in writing by the local planning authority. This statement shall detail any required remediation works and shall be designed to mitigate any remaining risks identified in the approved quantitative risk assessment. This document should include a strategy for dealing with previously undiscovered contamination. All works must be carried out in compliance with LCRM (2020) and by a competent person.

Part C: Following the completion of any remediation, a verification report demonstrating that the remediation as outlined in the RMS have been completed should be submitted to, and approved in writing, by the local planning authority. This report shall include (but may not be limited to): details of the remediation works carried out; results of any verification sampling, testing or monitoring including the analysis of any imported soil and waste management documentation. All works must be carried out in compliance with LCRM (2020) and by a competent person.

Reason: To ensure the risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors, in accordance with policies G1, D1, A1, and DM1 of the London Borough of Camden Local Plan 2017.

11 Prior to the commencement of any works on site, details demonstrating how trees to be retained shall be protected during construction work shall be submitted to and approved by the local planning authority in writing. Such details shall follow guidelines and standards set out in BS5837:2012 "Trees in Relation to Construction". All trees on the site, or parts of trees growing from adjoining sites, unless shown on the permitted drawings as being removed, shall be retained and protected from damage in accordance with the approved protection details.

Reason: To ensure that the development will not have an adverse effect on existing trees and in order to maintain the character and amenity of the area in accordance with the requirements of policies A2 and A3 of the London Borough of Camden Local Plan 2017.

Notwithstanding the provisions of Article 3 of the Town and Country Planning (General Permitted Development) Order 1995 as amended by the (No. 2) (England) Order 2008 or any Order revoking and re-enacting that Order, no development within Part 1 (Classes A-H) [and Part 2 (Classes A-C)] of Schedule 2 of that Order shall be carried out without the grant of planning permission having first been obtained from the local planning authority.

Reason: To safeguard the visual amenities of the area and to prevent over development of the site by controlling proposed extensions and alterations in order to ensure compliance with the requirements of policies G1, D1, D2 and A1 of London Borough of Camden Local Plan 2017.

13 The development hereby approved shall achieve a maximum internal water use of 110litres/person/day. The dwelling/s shall not be occupied until the Building Regulation optional requirement has been complied with.

Reason: To ensure the development contributes to minimising the need for further water infrastructure in an area of water stress in accordance with Policies CC1, CC2, CC3 of the London Borough of Camden Local Plan 2017.

Informative(s):

- Your proposals may be subject to control under the Building Regulations and/or the London Buildings Acts that cover aspects including fire and emergency escape, access and facilities for people with disabilities and sound insulation between dwellings. You are advised to consult the Council's Building Control Service, Camden Town Hall, Judd St, Kings Cross, London NW1 2QS (tel: 020-7974 6941).
- This approval does not authorise the use of the public highway. Any requirement to use the public highway, such as for hoardings, temporary road closures and suspension of parking bays, will be subject to approval of relevant licence from the Council's Streetworks Authorisations & Compliance Team, 5 Pancras Square c/o Town Hall, Judd Street London WC1H 9JE (Tel. No 020 7974 4444). Licences and authorisations need to be sought in advance of proposed works. Where development is subject to a Construction Management Plan (through a requirement in a S106 agreement), no licence or authorisation will be granted until the Construction Management Plan is approved by the Council.
- 3 All works should be conducted in accordance with the Camden Minimum Requirements a copy is available on the Council's website (search for 'Camden Minimum Requirements' at www.camden,gov.uk) or contact the Council's Noise and Licensing Enforcement Team, 5 Pancras Square c/o Town Hall, Judd Street London WC1H 9JE (Tel. No. 020 7974 4444)

Noise from demolition and construction works is subject to control under the Control of Pollution Act 1974. You must carry out any building works that can be heard at the boundary of the site only between 08.00 and 18.00 hours Monday to Friday and 08.00 to 13.00 on Saturday and not at all on Sundays and Public Holidays. You must secure the approval of the Council's Noise and Licensing Enforcement Team prior to undertaking such activities outside these hours.

In dealing with the application, the Council has sought to work with the applicant in a positive and proactive way in accordance with paragraph 38 of the National Planning Policy Framework 2021.

You can find advice about your rights of appeal at:

https://www.gov.uk/appeal-planning-decision.

Yours faithfully,

Supporting Communities Directorate

### FOREWORD TO CONTAMINATION TESTING AND ASSESSMENT

The following statements are designed to inform and guide the Client and other potential parties intending to rely upon this report, with the express intent of protecting them from misunderstanding as to the extent and thus the potential associated risks that may result from proceeding without further evaluations or guidance.

- 1] Unless otherwise stated in this report, the testing of soils and waters is based on a range of commonly occurring potential contaminants for the specific purpose of providing a general guidance evaluation for the proposed form of development. Thus, the range of potential contaminants is neither exhaustive nor specifically targeted to any previous known uses or influences upon the site.
- 2] The amount and scope of the testing should not be assumed to be exhaustive but has been selected, at this stage, to provide a reasonable, general view of the site ground conditions. In many cases this situation is quite sufficient for the site to be characterised for the purposes of development and related Health and Safety matters for persons involved in or directly affected by the site development works. It must be understood, however, that in certain circumstances aspects or areas of the site may require further investigation and testing in order to fully clarify and characterise contamination issues, both for regulatory compliance and for commercial reasons.
- 3] The scope of the contamination testing must not automatically be regarded as being sufficient to fully formulate a remediation scheme. For such a scheme it may be necessary to consider further testing to verify the effectiveness of the remedial work after the site has been treated. It must be understood that a remediation scheme which brings a site into a sufficient state for the proposed development ("fit for purpose") under current legislation and published guidance, may result in some contamination being left in-situ. It is possible that forthcoming legislation may result in a site being classified by the Local Authority and assigned a "Degree of Risk" related to previous use or known contamination.
- 4] The scope of the environmental investigation and contamination testing must not be automatically regarded as sufficient to satisfy the requirements in the wider environmental setting. The risks to adjacent properties and to the water environment are assessed by the regulatory authorities and there may be a requirement to carry out further exploration, testing and, possibly monitoring in the short or long term. It is not possible to sensibly predict the nature and extent of such additional requirements as these are the direct result of submissions to and liaison with the regulatory authorities. It is imperative, therefore, that such submissions and contacts are made as soon as possible, especially if there are perceived to be critical features of the site and proposed scheme, in this context.
- 5] New testing criteria have been implemented by the Environment Agency to enable a waste disposal classification to be made. The date of implementation of this Waste Acceptance Criteria [WAC] was July 2005. It is this testing that will be used by the waste regulatory authorities, including waste disposal sites, to designate soils for disposal in landfill sites. In certain circumstances, to satisfy the waste regulations, there may be the necessity to carry out additional testing to clarify and confirm the nature of any contamination that may be present. If commercial requirements are significant then this process may also necessitate further field operations to clarify the extent of certain features. Thus, the waste classification must be obtained from the waste regulation authorities or a licensed waste disposal site and we strongly recommend that this classification is obtained as soon as possible and certainly prior to establishing any costings or procedures for this or related aspects of the scheme.







Jonathan Mahoney Soil Consultants Ltd Chiltern House Earl Howe Road Holmer Green High Wycombe Buckinghamshire HP15 6QT

## **DETS Ltd**

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Rose Lane Industrial Estate
Rose Lane
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ME17 2JN
t: 01622 850410

# **DETS Report No: 21-00558**

Site Reference: Chalcot House, 59.5 Netherhall Gardens, London, NW3 5RE

Project / Job Ref: 10578/OT

**Order No:** 10578/OT

Sample Receipt Date: 19/01/2021

Sample Scheduled Date: 19/01/2021

Report Issue Number: 1

**Reporting Date:** 25/01/2021

**Authorised by:** 

Dave Ashworth Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.





Soil Analysis Certificate						
DETS Report No: 21-00558	Date Sampled	13/01/21	13/01/21	13/01/21	13/01/21	13/01/21
Soil Consultants Ltd	Time Sampled	None Supplied				
Site Reference: Chalcot House, 59.5 Netherhall	TP / BH No	BH01	BH01	BH01	BH01	BH01
Gardens, London, NW3 5RE						
Project / Job Ref: 10578/OT	Additional Refs	None Supplied				
Order No: 10578/OT	Depth (m)	0.75	2.75	5.00	7.50	12.00
Reporting Date: 25/01/2021	DETS Sample No	520888	520889	520890	520891	520892

Determinand	Unit	RL	Accreditation					
Asbestos Screen (S)	N/a	N/a						
pH	pH Units	N/a	MCERTS	7.8	7.2	6.5	7.2	7.3
Electrical Conductivity	uS/cm	< 5	NONE					
Total Cyanide	mg/kg	< 2	NONE					
Total Sulphate as SO <sub>4</sub>	mg/kg	< 200	MCERTS	461	< 200	232	384	693
Total Sulphate as SO <sub>4</sub>	%	< 0.02	MCERTS	0.05	< 0.02	0.02	0.04	0.07
W/S Sulphate as SO <sub>4</sub> (2:1)	mg/l	< 10	MCERTS	< 10	12	51	32	119
W/S Sulphate as SO <sub>4</sub> (2:1)	g/l	< 0.01	MCERTS	< 0.01	0.01	0.05	0.03	0.12
Total Sulphur	%	< 0.02	NONE	< 0.02	< 0.02	< 0.02	< 0.02	0.25
Organic Matter	%	< 0.1	MCERTS					
Arsenic (As)	mg/kg	< 2	MCERTS					
W/S Boron	mg/kg	< 1	NONE					
Cadmium (Cd)	mg/kg	< 0.2	NONE					
Chromium (Cr)	mg/kg	< 2	MCERTS					
Chromium (hexavalent)	mg/kg	< 2	NONE					
Copper (Cu)	mg/kg	< 4	MCERTS					
Lead (Pb)	mg/kg	< 3	MCERTS					
Mercury (Hg)	mg/kg	< 1	MCERTS					
Nickel (Ni)	mg/kg	< 3	MCERTS					
Selenium (Se)	mg/kg	< 2	MCERTS					
Zinc (Zn)	mg/kg	< 3	MCERTS					
Total Phenols (monohydric)	mg/kg	< 2	NONE					
EPH (C10 - C40)	mg/kg	< 6	MCERTS					





Soil Analysis Certificate						
DETS Report No: 21-00558	Date Sampled	13/01/21	13/01/21	13/01/21	13/01/21	13/01/21
Soil Consultants Ltd	Time Sampled	None Supplied				
Site Reference: Chalcot House, 59.5 Netherhall	TP / BH No	BH01	BH01	S1	TP1	TP5a
Gardens, London, NW3 5RE						
Project / Job Ref: 10578/OT	Additional Refs	None Supplied				
Order No: 10578/OT	Depth (m)	13.75	1.00	0.20	0.10	0.30
Reporting Date: 25/01/2021	DETS Sample No	520893	520894	520896	520897	520898

Determinand	Unit	RL	Accreditation					
Asbestos Screen (S)	N/a	N/a	ISO17025		Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	7.4	8.2	7.4	7.3	7.7
Electrical Conductivity	uS/cm	< 5	NONE		74	61	117	85
Total Cyanide	mg/kg	< 2	NONE		< 2	< 2	< 2	< 2
Total Sulphate as SO <sub>4</sub>	mg/kg	< 200	MCERTS	774	435	702	565	< 200
Total Sulphate as SO <sub>4</sub>	%	< 0.02	MCERTS	0.08	0.04	0.07	0.06	< 0.02
W/S Sulphate as SO <sub>4</sub> (2:1)	mg/l	< 10	MCERTS	118	29	13	16	18
W/S Sulphate as SO <sub>4</sub> (2:1)		< 0.01	MCERTS	0.12	0.03	0.01	0.02	0.02
Total Sulphur		< 0.02	NONE	0.55	0.05	0.04	0.03	< 0.02
Organic Matter	%	< 0.1	MCERTS		0.3	3.6	5.1	0.5
Arsenic (As)	mg/kg	< 2	MCERTS		13	16	11	6
W/S Boron	mg/kg	< 1	NONE		< 1	< 1	< 1	< 1
Cadmium (Cd)	mg/kg	< 0.2	NONE		< 0.2	0.5	0.2	< 0.2
Chromium (Cr)	mg/kg	< 2	MCERTS		26	22	21	25
Chromium (hexavalent)	mg/kg	< 2	NONE		< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS		21	35	18	7
Lead (Pb)	mg/kg	< 3	MCERTS		69	1060	275	27
Mercury (Hg)	mg/kg	< 1	MCERTS		< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS		9	10	5	3
Selenium (Se)	mg/kg	< 2	MCERTS		< 3	< 3	< 3	< 3
Zinc (Zn)	mg/kg	< 3	MCERTS		43	340	118	30
Total Phenols (monohydric)	mg/kg	< 2	NONE		< 2	< 2	< 2	< 2
EPH (C10 - C40)	mg/kg	< 6	MCERTS		< 6	28	10	< 6





Soil Analysis Certificate - Speciated PAHs										
DETS Report No: 21-00558	Date Sampled	13/01/21	13/01/21	13/01/21	13/01/21					
Soil Consultants Ltd	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied					
Site Reference: Chalcot House, 59.5 Netherhall Gardens, London, NW3 5RE	TP / BH No	BH01	S1	TP1	TP5a					
Project / Job Ref: 10578/OT	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied					
Order No: 10578/OT	Depth (m)	1.00	0.20	0.10	0.30					
Reporting Date: 25/01/2021	DETS Sample No	520894	520896	520897	520898					

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	0.50	< 0.1	< 0.1	
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Fluoranthene	mg/kg	< 0.1	MCERTS	0.19	0.71	0.16	< 0.1	
Pyrene	mg/kg	< 0.1	MCERTS	0.15	0.62	0.13	< 0.1	
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	0.36	< 0.1	< 0.1	
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	0.34	< 0.1	< 0.1	
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	0.14	< 0.1	< 0.1	
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	0.28	< 0.1	< 0.1	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	0.21	< 0.1	< 0.1	
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	0.21	< 0.1	< 0.1	
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	3.4	< 1.6	< 1.6	





Waste Acceptance Criteria Analytical Certificate - BS EN 12457/3 Date DETS Report No: 21-00558 **Landfill Waste Acceptance Criteria Limits** 13/01/21 Sampled Time None Soil Consultants Ltd Sampled Supplied Site Reference: Chalcot House, 59.5 TP / BH No BH01 Stable Non-Netherhall Gardens, London, NW3 5RE reactive Additional Hazardous None Project / Job Ref: 10578/OT **Inert Waste HAZARDOUS** Waste Refs Supplied Landfill waste in non Landfill Order No: 10578/OT Depth (m) 0.25 - 1.20 hazardous Landfill DETS Reporting Date: 25/01/2021 520895 Sample No Determinand Unit MDL 0.6 5% 6% TOC 0/ < 0.13% Loss on Ignition < 0.03 2.50 10% BTEX<sup>MU</sup> < 0.05 < 0.05 6 mg/kg Sum of PCBs < 0.1 < 0.1 mg/kc Mineral Oil<sup>MU</sup> 500 mg/kg < 10 < 10 Total PAH<sup>MU</sup> < 1.7 < 1.7 100 mg/kg pH Units N/a >6 To be < 1 Acid Neutralisation Capacity mol/kg (+/-) < 1 To be evaluate Limit values for compliance leaching test Cumulative 2:1 8:1 Eluate Analysis using BS EN 12457-3 at L/S 10 I/kg 10:1 mg/kg mg/l mg/l (mg/kg) < 0.01 < 0.01 < 0.2 0.5 25 Arsenic<sup>U</sup> < 0.02 100 300 < 0.02 < 0.1 20 Barium<sup>l</sup> <u>Cadmium<sup>U</sup></u> < 0.0005 < 0.0005 < 0.02 0.04 5 1 Chromium<sup>u</sup> < 0.005 < 0.005 < 0.20 0.5 10 70 Copper<sup>L</sup> 0.01 0.01 < 0.5 50 100 < 0.0005 < 0.0005 0.01 < 0.005 0.2 2 **Mercury** 30 Molybdenum<sup>U</sup> 0.008 0.002 < 0.1 0.5 10 Nickel<sup>U</sup> < 0.007 < 0.007 < 0.2 0.4 10 40 Lead<sup>U</sup> < 0.005 < 0.005 < 0.2 0.5 10 50 0.006 < 0.005 < 0.05 0.06 0.7 Antimony 7 0.5 < 0.005 < 0.005 0.1 Selenium<sup>l</sup> < 0.05 < 0.005 0.006 < 0.2 4 50 200 Zinc<sup>U</sup> 13 800 15000 25000 Chloride 113 < 0.5 < 0.5 500 < 1 10 150 Fluoride<sup>l</sup> Sulphate<sup>U</sup> 15 11 109 1000 20000 50000 TDS 102 91 865 4000 60000 100000 < 0.01 < 0.01 Phenol Index < 0.5 10.8 15.5 500 800 1000 DOC 142 Leach Test Information Sample Mass (kg) 0.20 Dry Matter (%) 86.2 Moisture (%) 16 Stage 1 Volume Eluate L2 (litres) 0.22 Filtered Eluate VE1 (litres) 0.13

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-

Stated limits are for guidance only and DETS Ltd cannot be held responsible for any discrepencies with current legislation

M Denotes MCERTS accredited test

U Denotes ISO17025 accredited test





Soil Analysis Certificate - Sample Descriptions	
DETS Report No: 21-00558	
Soil Consultants Ltd	
Site Reference: Chalcot House, 59.5 Netherhall Gardens, London, NW3 5RE	
Project / Job Ref: 10578/OT	
Order No: 10578/OT	
Reporting Date: 25/01/2021	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
520888	BH01	None Supplied	0.75	18	Brown sandy clay
520889	BH01	None Supplied	2.75	9.8	Brown sandy clay with stones
520890	BH01	None Supplied	5.00		Light brown sandy clay
520891	BH01	None Supplied	7.50	18.4	Light brown sandy clay
520892	BH01	None Supplied	12.00	17.6	Grey sandy clay
520893	BH01	None Supplied	13.75	16	Grey clay
520894	BH01	None Supplied	1.00	20.2	Brown sandy clay
520895	BH01	None Supplied	0.25 - 1.20	13.8	Brown loamy sand with stones
520896	S1	None Supplied	0.20		Black loamy sand with stones and vegetation
520897	TP1	None Supplied	0.10		Black loamy sand with vegetation
520898	TP5a	None Supplied	0.30	13.7	Brown sandy clay with stones

Moisture content is part of procedure E003 & is not an accredited test Insufficient Sample  $^{\rm I/S}$  Unsuitable Sample  $^{\rm U/S}$ 





Soil Analysis Certificate - Methodology & Miscellaneous Information DETS Report No: 21-00558

Soil Consultants Ltd

Site Reference: Chalcot House, 59.5 Netherhall Gardens, London, NW3 5RE
Project / Job Ref: 10578/OT
Order No: 10578/OT
Reporting Date: 25/01/2021

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR		Determination of BTEX by headspace GC-MS	E001
Soil	D		Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of	E016
Soil	AR	Cyanida - Compley	1,5 diphenylcarbazide followed by colorimetry  Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR		Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR		Determination of free cyanide by distillation followed by colorimetry	E015
Soil	D		Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR		Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by	E022
Soil	AR	,	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D		Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR		Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR		Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	C12-C16, C16-C21, C21-C40)		E004
Soil	D		Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D		Determination of TOC by combustion analyser.	E027
Soil	D D		Determination of TOC by combustion analyser.	E027
Soil Soil	AR		Determination of TOC by combustion analyser.  Determination of ammonium by discrete analyser.	E027 E029
3011	AR	Exchangeable Ammonium	Determination of animonium by discrete analyses.  Determination of fraction of organic carbon by oxidising with potassium dichromate followed by	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle	E010
Soil Soil	D D	Loss on Ignition @ 450oC	Determination of loss of ignition in soil by gravinedically will the sample being ignited in a mulie furnace  Determination of water soluble magnesium by extraction with water followed by ICP-OES	E019 E025
Soil	D		Determination of metals by aqua-regia digestion followed by ICP-OES	E023
			Determination of metals by aqua-regia digestion followed by ICF-OLS  Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE	1 1
Soil	AR	Mineral Oil (C10 - C40)	cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	iron (11) suipnate	E010
Soil	AR	PAH - Speciated (EPA 16)	use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners		E008
Soil	D		Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR		Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR D		Determination of phenols by distillation followed by colorimetry	E021 E009
Soil Soil	D		Determination of phosphate by extraction with water & analysed by ion chromatography  Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D		Determination of total sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D		Determination of supriace by extraction with water & analysed by for circumatography  Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR		Determination of sulphide by distillation followed by colorimetry	E018
Soil	D		Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR		Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR		Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001





John Bartley Soil Consultants Ltd 8 Haven House Albemarle Street Harwich Essex CO12 3HL

### **Derwentside Environmental Testing Services Ltd**

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# **DETS Report No: 23-04459**

Site Reference: Chalcot House

Project / Job Ref: 10578/JRCB

Order No: None Supplied

Sample Receipt Date: 29/03/2023

Sample Scheduled Date: 30/03/2023

Report Issue Number: 1

**Reporting Date:** 05/04/2023

Authorised by:

Kevin Old

KO C

Operations Director

Dates of laboratory activities for each tested analyte are available upon request.

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.





Soil Analysis Certificate						
DETS Report No: 23-04459	Date Sampled	28/03/23	28/03/23	28/03/23	28/03/23	28/03/23
Soil Consultants Ltd	Time Sampled	None Supplied				
Site Reference: Chalcot House	TP / BH No	E1/J1	E2/J1	E3/J1	E4/J1	E5/J1
Project / Job Ref: 10578/JRCB	Additional Refs	None Supplied				
Order No: None Supplied	Depth (m)	0.10	0.20	0.15	0.15	0.20
Reporting Date: 05/04/2023	DETS Sample No	644296	644297	644298	644299	644300

Determinand	Unit	RL	Accreditation					
Lead (Pb)	mg/kg	< 3	MCERTS	461	256	573	95	609





Soil Analysis Certificate						
DETS Report No: 23-04459	Date Sampled	28/03/23	28/03/23	28/03/23	28/03/23	28/03/23
Soil Consultants Ltd	Time Sampled	None Supplied				
Site Reference: Chalcot House	TP / BH No	E6/J1	E7/J1	E8/J1	E9/J1	E10/J1
Project / Job Ref: 10578/JRCB	Additional Refs	None Supplied				
Order No: None Supplied	Depth (m)	0.10	0.12	0.18	0.20	0.10
Reporting Date: 05/04/2023	DETS Sample No	644301	644302	644303	644304	644305

Determinand	Unit	RL	Accreditation					
Lead (Pb)	mg/kg	< 3	MCERTS	573	501	837	1700	2580





Soil Analysis Certificate						
DETS Report No: 23-04459	Date Sampled	28/03/23	28/03/23	28/03/23	28/03/23	28/03/23
Soil Consultants Ltd	Time Sampled	None Supplied				
Site Reference: Chalcot House	TP / BH No	E11/J1	E12/J1	E13/J1	E14/J1	E15/J1
Project / Job Ref: 10578/JRCB	Additional Refs	None Supplied				
Order No: None Supplied	Depth (m)	0.15	0.15	0.10	0.20	0.20
Reporting Date: 05/04/2023	DETS Sample No	644306	644307	644308	644309	644310

Determinand	Unit	RL	Accreditation					
Lead (Pb)	mg/kg	< 3	MCERTS	1720	3040	2840	1810	222





Soil Analysis Certificate						
DETS Report No: 23-04459	Date Sampled	28/03/23	28/03/23	28/03/23	28/03/23	28/03/23
Soil Consultants Ltd	Time Sampled	None Supplied				
Site Reference: Chalcot House	TP / BH No	E16/J1	E17/J1	E18/J1	E19/J1	E20/J1
Project / Job Ref: 10578/JRCB	Additional Refs	None Supplied				
Order No: None Supplied	Depth (m)	0.15	0.10	0.20	0.20	0.10
Reporting Date: 05/04/2023	DETS Sample No	644311	644312	644313	644314	644315

Determinand	Unit	RL	Accreditation					
Lead (Pb)	mg/kg	< 3	MCERTS	277	500	586	442	753





Soil Analysis Certificate - Sample Descriptions

DETS Report No: 23-04459

Soil Consultants Ltd

Site Reference: Chalcot House

Project / Job Ref: 10578/JRCB

Order No: None Supplied

Reporting Date: 05/04/2023

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
644296	E1/J1	None Supplied	0.10	17.1	Brown sandy clay with vegetation and brick
644297	E2/J1	None Supplied	0.20	14.8	Brown loamy sand with stones and vegetation
644298	E3/J1	None Supplied	0.15	18	Brown sandy clay with stones and vegetation
644299	E4/J1	None Supplied	0.15	13.2	Brown sandy clay with stones
644300	E5/J1	None Supplied	0.20		Brown sandy clay with stones and vegetation
644301	E6/J1	None Supplied	0.10		Brown sandy clay with stones and vegetation
644302	E7/J1	None Supplied	0.12		Black sandy clay with stones and vegetation
644303	E8/J1	None Supplied	0.18		Brown sandy clay with stones
644304	E9/J1	None Supplied	0.20		Brown sandy clay with vegetation
644305	E10/J1	None Supplied	0.10		Brown sandy clay with stones and vegetation
644306	E11/J1	None Supplied	0.15		Brown sandy clay with stones
644307	E12/J1	None Supplied	0.15		Brown sandy clay with stones
644308	E13/J1	None Supplied	0.10		Brown sandy clay with vegetation
644309	E14/J1	None Supplied	0.20		Brown sandy clay with stones
644310	E15/J1	None Supplied	0.20		Brown sandy clay with stones
644311	E16/J1	None Supplied	0.15		Brown sandy clay with stones and vegetation
644312	E17/J1	None Supplied	0.10		Brown sandy clay with stones and vegetation
644313	E18/J1	None Supplied	0.20		Brown sandy clay with stones
644314	E19/J1	None Supplied	0.20		Brown sandy clay with vegetation
644315	E20/J1	None Supplied	0.10	18.4	Brown sandy clay with stones

Moisture content is part of procedure E003 & is not an accredited test Insufficient Sample  $^{\text{I/S}}$  Unsuitable Sample  $^{\text{I/S}}$ 





Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 23-04459

Soil Consultants Ltd

Site Reference: Chalcot House

Project / Job Ref: 10578/JRCB

Order No: None Supplied

Reporting Date: 05/04/2023

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR		Determination of BTEX by headspace GC-MS	E001
Soil	D		Determination of cations in soil by agua-regia digestion followed by ICP-OES	E002
Soil	D		Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of	E016
Soil	AR		1,5 diphenylcarbazide followed by colorimetry  Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR		Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR		Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D		Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR		Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR		Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D		Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D		Determination of TOC by combustion analyser.	E027
Soil	D		Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D		Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR		Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	juse of surrogate and internal standards	E005
Soil	AR		Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D		Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR		Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR		Determination of phenols by distillation followed by colorimetry	E021
Soil Soil	D D		Determination of phosphate by extraction with water & analysed by ion chromatography Determination of total sulphate by extraction with 10% HCI followed by ICP-OES	E009 E013
Soil	D		Determination of total sulphate by extraction with 10% ACT followed by 1CP-OES  Determination of sulphate by extraction with water & analysed by ion chromatography	E013
Soil	D		Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR		Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total culphur by extraction with agua-rogia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of total sulphul by extraction with aqua-regia honowed by ICF-OLS  Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)		E004
Soil	AR		Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001