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REMEDIAL STRATEGY AND VERIFICATION PLAN

FOR

**PROPOSED DEVELOPMENT AT
313-315 THE ROUNDWAY AND 8-12 CHURCH LANE,
LONDON
N17 7AB**

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Report Title: Remedial Strategy & Verification Plan for 313-315 The Roundway and 8-12 Church Lane, London N17 7AB

Report Status: Final

Job No: P5141J2799/CLP

Date: 23 November 2023

QUALITY CONTROL – REVISIONS

Version	Date	Issued By	Comment
V2.0	27/02/2024	CLP	Update to recommended clean cover system following comments from the Council's Pollution Officer.

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1 INTRODUCTION

1.1 Terms of Reference

- 1.1.1 Jim Construction Tottenham Ltd ("The Client"), has commissioned Jomas Associates Ltd ('Jomas') to produce a remedial strategy prior to the development of 313-315 The Roundway and 8-12 Church Lane, London N17 7AB.

1.2 Site Information

- 1.2.1 The site currently comprises buildings and hardstanding associated with mixed commercial and MOT/vehicle repair garages.

1.3 Proposed Development

- 1.3.1 The proposed development is to comprise the demolition of the current buildings and construction of a three to five storey development of 76 new homes and 541sqm of retail and workspace at ground level. Private and communal soft landscaping is anticipated.

1.4 Previous Reports

- 1.4.1 The previous reports that have been utilised by Jomas for the purposes of this document comprise:
- Desk Study for The Roundway, London, 285-21-088-11, September 2021, ASL.
 - Desk Study/Preliminary Risk Assessment Report for 313-315 The Roundway and 8-12 Church Lane, London, N17 7AB, P5141J2799/CLP, 24th May 2023, Jomas Associates Ltd.
 - Geo-environmental and Geotechnical Assessment (Ground Investigation) report for The Roundway and 8-12 Church Lane, London, N17 7AB, P5141J2799/CLP, 4th July 2023, Jomas Associates Ltd.

1.5 Background

- 1.5.1 A review of the local authority's planning portal was undertaken on 23rd November 2023 at <https://www.haringey.gov.uk/planning-and-building-control/planning/planning-applications/current-planning-applications/view-and-comment-current-applications>.
- 1.5.2 Development permission is being granted by Haringey London Borough Council with a number of conditions relating to various requirements.
- 1.5.3 Planning Conditions 12 and 13 of application ref HGY/2022/0967, dated September 2023, relate to land contamination matters, as reproduced below.

Condition 12:

Before development commences other than for investigative work:

- a) Using the information already submitted in Desk Study Report with reference ASL Report no: 285-21-088-11 prepared by ASL Limited dated September 2021, an intrusive site investigation shall be conducted for the site using information obtained from the desktop study and Conceptual Model. The site investigation must be comprehensive enough to enable; a risk assessment to be undertaken, refinement of the Conceptual Model, and the development of a Method Statement detailing the remediation requirements.

- b) The risk assessment and refined Conceptual Model shall be submitted, along with the site investigation report, to the Local Planning Authority which shall be submitted to, and approved in writing by, the Local Planning Authority prior to that remediation being carried out on site.
- c) Where remediation of contamination on the site is required, completion of the remediation detailed in the method statement shall be carried out and;
- d) A report that provides verification that the required works have been carried out, shall be submitted to, and approved in writing by the Local Planning Authority before the development is occupied.

REASON: To ensure the development can be implemented and occupied with adequate regard for environmental and public safety.

Condition 13:

If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the Local Planning Authority) shall be carried out until a remediation strategy detailing how this contamination will be dealt with has been submitted to and approved in writing by the Local Planning Authority. The remediation strategy shall be implemented as approved.

REASON: To ensure that the development is not put at unacceptable risk from, or adversely affected by, unacceptable levels water pollution from previously unidentified contamination sources at the development site in line with the National Planning Policy Framework.

- 1.5.4 As stated in 12 a) a Phase 1 Desk Study report has been completed by ASL, September 2021. However, Jomas have since also completed a Phase 1 Desk Study report, as detailed in section 1.4.1.
- 1.5.5 Condition 12 a) has been addressed by the Ground Investigation report undertaken by Jomas in July 2023.
- 1.5.6 The report herein aims to address condition 12 b).
- 1.5.7 Condition 12 c) and d) will be addressed by the production of a Verification Report on completion of the works set out within this strategy.

1.6 Objectives

- 1.6.1 The primary objectives of this document are as follows:
 - To provide information on the site setting; identify ground conditions and potential environmental risks associated with the development.
 - To provide an assessment of various options for remediation.
 - To set out the remediation strategy that will provide a site that is suitable for the intended use and addresses any identified unacceptable risks.
 - To provide relevant information to address planning conditions relating to contaminated land. A separate verification report will be required following the implementation of the remediation strategy.
- 1.6.2 The primary remediation objective is the mitigation of the risks associated with lead impacted soils.
- 1.6.3 This document provides an assessment of potential remedial strategies and describes the methodology for the proposed remedial action.

- 1.6.4 The remediation strategy and associated remediation criteria have been developed with reference to previous works carried out at the site. The remediation criteria used to develop the proposed remediation strategy will be used for the proposed verification works.
- 1.6.5 The Principal Contractor will be responsible for implementing the appropriate methodology and site management procedures to achieve the required outcome and comply with these principles.
- 1.6.6 The works will be undertaken by experienced personnel and will be managed in accordance with the Contractor's Construction Environmental Management Plan. Detailed construction method statements will be prepared for the impacted soil removal works. Jomas will be employed as Environmental Specialist, to supervise the works and undertake soil sampling and analysis as part of the validation process.
- 1.6.7 This document should be read in conjunction with the above reports.

1.7 Limitations

- 1.7.1 Jomas Associates Ltd ('Jomas') has prepared this report for the sole use of Jim Construction Tottenham Ltd, in accordance with the generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon by any other party without the explicit written agreement of Jomas. No other third party warranty, expressed or implied, is made as to the professional advice included in this report. This report must be used in its entirety.
- 1.7.2 This report provides an overview of conclusions drawn from previous investigations, some of which has been conducted by others. Third party information used is assumed to be correct, and Jomas has not validated any of the data provided. Jomas is unable to guarantee the accuracy of the information provided by others.

2 LAND CONTAMINATION OVERVIEW

2.1 Desk Study Findings

A desk study was produced for the site (Jomas, May 2023), and issued separately. A brief overview of the findings is presented below.

- A review of earliest available (1864) historical maps indicates that the site comprised agricultural land. By the map dated 1873, 2No small buildings occupy the site, 1No in the north and 1No in the south west, small outbuildings are also present. By 1913, newly constructed buildings were present in the middle of the site, the uses of the buildings on site are unknown. By 1935, the building in the north had extended to the west, off site and the building in the south west was no longer present. 3No small attached buildings are shown along the southern boundary and rows of small buildings are shown in the middle of the site, possibly representing domestic style garages. By 1992, the main building in the middle of the site is identified as a garage.
- The surrounding area is shown as mostly agricultural land with few sporadic buildings, including a nursery to the west and Bruce Castle to the east. By 1913, extensive residential developments had occurred to the south and west of the site. By 1935, a substation was present to the south east and by 1955, a garage is shown to the north west and south of the site.
- Information provided by the British Geological Survey indicates that the site is directly underlain by superficial deposits of the Enfield Silt Member in the east of the site, underlain by superficial deposits of the Taplow Gravel Member across the entire site. These superficial deposits are underlain by solid deposits of the London Clay Formation. No artificial deposits are reported within the site.
- With reference to British Geological Survey (BGS) records, borehole records from the south west of the site, indicated Made Ground to a depth of around 1.19m bgl underlain by a silty clay with sand lenses (considered to represent the London Clay Formation), to the base of the borehole at approximately 6.71m bgl.
- The Enfield Silt Member underlying the site are identified as Unproductive and the Taplow Gravel Member is identified as a Secondary A Aquifer with the underlying solid deposits identified as Unproductive.
- A review of the Enviro+Geosight Report indicates that there are no source protection zones within 500m of the site.
- There are no groundwater, surface water or potable water abstractions reported within 1km of the site.
- The nearest detailed river entry is reported 184m west of the site, identified as the Moselle River. There are no Environment Agency Zone 2 or Zone 3 floodplains reported within 50m of the site.
- An intrusive investigation was recommended to confirm the preliminary geo-environmental risks identified and/or to provide geotechnical information for use in design.
- A programme of soil gas monitoring was also recommended due to the proximity of a potentially infilled pond 20m north of the site and due to the site use and history.

2.2 Intrusive Investigation

2.2.1 The ground investigation was undertaken on 18th and 19th May 2023, and consisted of the following:

- 5No. window sampling boreholes (WS1-WS5), drilled up to 5.0m below ground level (bgl), with associated in situ testing and sampling.
- 4No cable percussive boreholes (BH1, BH3, BH4 and BH5), drilled up to 20.0m bgl.
- 2No hand dug trial pits (TP1 and TP2) within an existing stockpile on site.
- 5No. gas and groundwater monitoring standpipes, extending up to 5.0m bgl.
- Laboratory analysis for chemical and geotechnical purposes.

2.2.2 The results of the ground investigation revealed a ground profile comprising a variable thickness of Made Ground (up to 3.0m bgl depth), underlain locally by the Enfield Silt Member, overlying the Taplow Gravel Member, to depths of up to 4.0m bgl, underlain by the London Clay Formation to the depth of the boreholes (maximum depth of 20.45m bgl).

2.2.3 During the investigation groundwater was reported within Window Sample boreholes WS3, WS3 at 3.0mbgl depth.

2.2.4 Groundwater was not reported within the remaining boreholes; however, water was added to aid drilling within the cable percussive boreholes and could have masked groundwater strikes.

2.2.5 During return monitoring groundwater was reported at depths of between 0.49m and 3.70mbgl.

2.3 Soil Gas Risk Assessment

2.3.1 The site can be considered as Characteristic Situation 1 in terms of the gas screening value when calculated using worst case results. Therefore, formal gas protection methods are not considered necessary.

2.4 Controlled Waters Risk Assessment

2.4.1 None of the PAH's tested within BH1 have been reported above the laboratory detection limit and therefore PAH's are not considered to be migrating off site at concentrations in excess of the EQS.

2.4.2 The site does not lie within a Source Protection Zone and no groundwater or potable abstractions are reported within 1km of the site.

2.4.3 None of the Made Ground soils tested at the site have exceeded the GAC for PAH's and it is therefore considered that the exceedances within the groundwater are not a result of downward leaching from the soils.

2.4.4 The PAH's reported to exceed standards, are all reported as priority pollutants by the USEPA. However, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(ghi)perylene and indeno(123-cd)pyrene are all reported to have very low mobility in groundwater, as reported by CL:AIRE (2017). Furthermore, metals are not considered highly mobile within groundwater.

2.4.5 Although based on the above justifications, it is considered that the concentrations detected do not pose a significant risk to the River Lea in a north easterly direction, it would be prudent to obtain additional groundwater samples from WS5 , where previously insufficient water sample was obtained to complete the full chemical testing suite.

2.5 Human Health Risk Assessment

2.5.1 Following a review of the Site Investigation reports, the following factors are noted:

- The proposed development comprises the construction of a three to five storey development of 76 new homes with retail and workspace at ground level. Private and communal soft landscaping is anticipated.
- Following generic risk assessments, elevated concentrations of lead were reported within the site. These soils are not considered suitable within soft landscaped areas.
- No asbestos containing materials or fibres were detected in the Made Ground samples analysed in the laboratory.
- A potential risk to plant growth has been identified.
- Health and Safety measures will be required for the protection of construction workers.

2.6 Impact to Neighbouring Properties and Buried Services

2.6.1 Screening of levels of determinands potentially affecting water pipes identified 1No single exceedance relating to Phenols within a sample obtained from the stockpiled material in the south of the site.

2.6.2 Requirements for potable water supply pipework should be confirmed with the relevant utility provider at an early stage of the project life cycle.

2.7 Conceptual Site Model (CSM)

2.7.1 The site CSM has been revised and updated from that suggested in the desk study in view of the ground investigation data, including soil laboratory analysis results. Table 2.1 highlights whether pollutant linkages identified in the original CSM are still relevant following the risk assessment, or whether pollutant linkages, not previously identified, exist.

SECTION 2

LAND CONTAMINATION OVERVIEW

Table 2.1: Plausible Pollutants Linkages Summary (Pre-Remediation, as updated for Remediation Strategy)

Potential Source (from desk study)	Pathway	Receptor	Relevant Pollutant Linkage?	Comment
- Potential for contaminated ground associated with current site use – on site (S1) - MOT garages in the N and S. - Cooking oil company with extensive waste oil containers. - Stockpile of general waste, possible fly-tipping. - Previously burnt buildings during a fire.	- Ingestion and dermal contact with contaminated soil (P1) - Inhalation or contact with potentially contaminated dust and vapours (P2) - Permeation of water pipes and attack on concrete foundations by aggressive soil conditions (P6)	- Construction workers (R1) - Maintenance workers (R2) - Neighbouring site users (R3) - Future site users (R4) - Building foundations and on site buried services (water mains, electricity and sewer) (R5)	Y	Remedial measures required. The findings of this report should be included in the construction health and safety file, with adequate measures put in place for the protection of construction and maintenance workers. Contact should be made with relevant utility providers to confirm if upgraded materials are required. Buried concrete for foundations should be designed to Class DS-3 (AC-3s).
Potential for Made Ground associated with previous development operations – on site (S2)	Accumulation and migration of soil gases (P5)		N	Site has been characterised as CS1 and no gas protection measures are deemed necessary.
- Potential buried tanks associated with former use as a Garage – on site in NE (S3) - Current and previous industrial use – on and off site (S4) On site – Possible domestic garages. Off site - Garage adjacent to NW and SE. - Garage SE has a licenced pollutant release for the respraying of road vehicles. - Laundry 90m SE. - Garages 50m SE, 200m SW. - Engineering works 200m SW.	- Leaching through permeable soils, migration within the vadose zone (i.e., unsaturated soil above the water table) and/or lateral migration within surface water, as a result of cracked hardstanding or via service pipe/corridors and surface water runoff (P3) - Horizontal and vertical migration of contaminants within groundwater (P4)	- Neighbouring site users (R3) - Building foundations and on site buried services (water mains, electricity and sewer) (R5)	N	A significant risk of impact to controlled waters has not been identified. However further groundwater sampling and testing is considered prudent, particularly from the well, WS5. Buried concrete for foundations should be designed to Class DS-3 (AC-3s).

SECTION 2

LAND CONTAMINATION OVERVIEW

Potential Source (from desk study)	Pathway	Receptor	Relevant Pollutant Linkage?	Comment
• Potential for Polychlorinated Biphenyls from substation adjacent to SE (1935) (S5) • Potential ground gas generation from possible degradable material within made ground on site and infilled pond off site 20m N (S6) • Potential asbestos containing materials at the site, particularly in roofing materials (S7)				

3 REMEDIAL OPTIONS APPRAISAL

3.1.1 Soil Screening

- A possible remedial option would be to undertake soil screening, comprising excavation of impacted soils, screening within the site to remove likely contaminative materials, and re-deposition of materials on site. Such an operation may include a variety of screening methodologies, including soil washing etc.

3.1.2 Excavation and disposal

- Made Ground displaying elevated concentrations of contaminants may be excavated for disposal off site. From a review of chemical testing data, excavations to a depth of the order of 3.0m bgl minimum would be required, with the importation of a respective thickness of certified clean material to restore site level.
- The costs and vehicle movements required for such an operation may render the costs associated with this method prohibitive.

3.1.3 Encapsulation

- In order to sever the identified pathways to the most sensitive receptors (human health), encapsulation of impacted materials below building footprints or areas of hard surfacing may be undertaken. This would have the effect of removing the potential pathways of direct contact and inhalation.
- In areas of communal soft landscaping, impacted soils can be encapsulated beneath a minimum 450mm thickness of clean imported sub/topsoil placed over a geotextile membrane or marker layer. This thickness should be increased to 600mm within private areas of soft landscaping.

3.1.4 Dust control measures will be required during the undertaking of all the remedial options identified above for the protection of site workers.

3.1.5 When issues of cost effectiveness, requirements for vehicle movements etc. are taken into account, it is recommended that encapsulation of impacted soils is adopted as the preferred remedial methodology.

3.1.6 The requirements for the remedial methodology are presented within Section 4 of this report.

4 PROPOSED REMEDIATION STRATEGY

4.1 Introduction

4.1.1 The proposed remediation scheme serves to address the potential unacceptable risks identified in the context of the proposed redevelopment of the site.

4.1.2 The remedial measures comprise;

- The encapsulation of impacted soils below areas of building footprint or hardstanding,
- A watching brief following demolition and during enabling works,
- Within areas of communal soft landscaping, a cover layer comprising a minimum 450mm thickness of clean subsoil/topsoil over a geotextile membrane/marker layer will be utilised. This should be increased to 600mm in private areas of soft landscaping.
- Where Made Ground is removed and the base of the Made Ground is encountered at shallower depth than the depth of the proposed clean cover, the depth of clean cover can be limited to the thickness of made ground removed, or thickness required for finished levels.
- Validation testing will be undertaken upon soils imported to site to confirm their suitability for use as a clean capping layer.

4.2 Remediation Strategy

Impacted Soils Encapsulation

4.2.1 Following removal of hardstanding etc, any visible asbestos materials are to be removed by a specialist contractor by a hand picking operation, and double bagged for disposal. Dust control measures will also be required. This may comprise the damping down of excavations. It is noted that asbestos fibres will not be visible to the naked eye.

4.2.2 Where buildings or hardstanding are proposed, no formal remedial works are considered necessary, beyond the hand picking discussed above, and the construction of the building/hardstanding, as this should provide an appropriate barrier to impacted soils. External hardstanding within private areas should be of a construction that discourages possible removal by future occupiers.

4.2.3 Within areas of soft landscaping, soils will be encapsulated below a cover layer of imported clean subsoil/topsoil. This should comprise a minimum of 450mm of soil within communal soft landscaping areas, laid over a geotextile membrane/marker layer. This thickness should be increased to 600mm within private soft landscaping areas.

4.2.4 Where topsoil and sub-soil is imported to the site, the soil should be chemically suitable for use. All imported soil should conform to the following chemical specification:

Table 4.1: Topsoil Requirements

Determinand	Unit	Screening Criteria	
Arsenic	mg/kg	S4UL	37
Boron	mg/kg	S4UL	290
Cadmium	mg/kg	S4UL	11
Chromium	mg/kg	S4UL	910

SECTION 4
PROPOSED REMEDIATION STRATEGY

Determinand	Unit	Screening Criteria	
Lead	mg/kg	C4SL	200
Mercury	mg/kg	S4UL	40
Nickel	mg/kg	BS3882	110
Selenium	mg/kg	S4UL	250
Copper	mg/kg	BS3882	200
Zinc	mg/kg	BS3882	300
Total Cyanide	mg/kg	CLEA v1.06	33
Asbestos	%	S4UL	None Detected
pH	-	S4UL	5-9
Naphthalene	mg/kg	S4UL	2.3
Acenaphthylene	mg/kg	S4UL	170
Acenaphthene	mg/kg	S4UL	210
Fluorene	mg/kg	S4UL	170
Phenanthrene	mg/kg	S4UL	95
Anthracene	mg/kg	S4UL	2400
Fluoranthene	mg/kg	S4UL	280
Pyrene	mg/kg	S4UL	620
Benzo(a)anthracene	mg/kg	S4UL	7.2
Chrysene	mg/kg	S4UL	15
Benzo(b)fluoranthene	mg/kg	S4UL	2.6
Benzo(k)fluoranthene	mg/kg	S4UL	77
Benzo(a)pyrene	mg/kg	S4UL	2.2
Indeno(123-cd)pyrene	mg/kg	S4UL	27
Dibenzo(ah)anthracene	mg/kg	S4UL	0.24
Benzo(ghi)perylene	mg/kg	S4UL	320
TPH C ₅ -C ₆	mg/kg	S4UL	42
TPH C ₆ -C ₈	mg/kg	S4UL	100
TPH C ₈ -C ₁₀	mg/kg	S4UL	27
TPH C ₁₀ -C ₁₂	mg/kg	S4UL	74
TPH C ₁₂ -C ₁₆	mg/kg	S4UL	140
TPH C ₁₆ -C ₂₁	mg/kg	S4UL	260
TPH C ₂₁ -C ₃₅	mg/kg	S4UL	1100

4.3 Health and Safety / PPE

- 4.3.1 Excavations will have suitable barriers and access points, with pedestrian routes clearly marked. Appropriate safety signage and instructions will be clearly visible, with accesses to be kept clear of debris, materials and cables.
- 4.3.2 Operatives will be briefed on sharps protection in order to ensure safety. Clean/dirty rooms will be provided for operatives working within contaminated areas
- 4.3.3 Standard PPE will be required at all times, namely:
- Hard hat
 - Safety spectacles
 - Hi-viz waistcoat or jacket
 - Gloves
 - Boots or shoes with steel toe and midsole protection
- 4.3.4 Other items may be required as per detailed in the specific method statement, such as:
- Harness
 - Dust protection
 - Ear protection
 - Other specialist equipment
- 4.3.5 A method statement will be produced by the chosen contractor.

4.4 Unexpected Contamination

- 4.4.1 To accord with best practice if, during the construction of the development, contamination and/or materials not previously identified are found to be present at the site, then no further development (unless otherwise agreed in writing with the Local Planning Authority) shall be carried out until Jomas (or qualified environmental engineer) has been informed, and a suitable strategy implemented to the approval of the engineer and/or the Local Planning Authority.
- 4.4.2 Examples of such materials include:
- Suspected asbestos containing materials
 - Buried drums, tanks, pipework or containers
 - Soil or water with colour or odour
 - Non-natural materials and wastes
 - Other evidence of contamination, for example iridescent sheens (like oil or diesel) on soil or water.

4.5 Operational Standards – Summary

- 4.5.1 As a minimum, the following standards shall be employed during the full course of this remediation site works;
- All materials subject to excavation and disposal must be tracked throughout and evidence generated to provide an auditable trail.

- Any excavated soils will be stockpiled/stored in a designated area on site, with plastic sheeting placed at ground surface to prevent cross-contamination. The contractor shall be responsible for the removal of spoil from the site.
- Personal protective equipment shall be employed by all site remediation and ground worker personnel in accordance with site specific risk assessments. These are to be completed by all contractors following consideration of the potentially hazardous properties of contaminants within the site.
- A copy of this remediation statement together with all previous geo-environmental assessment reports shall be retained on site for reference during the full course of remediation activities.

5 VERIFICATION PLAN

5.1 Proposals for Validation & Verification

Cover Layer

- 5.1.1 A qualified environmental engineer shall undertake the following tasks to monitor the remedial activities described in this statement.
- Following importation of subsoil/topsoil to site, representative samples will be obtained for laboratory testing. It is anticipated that 1No sample will be taken per private area of soft landscaping and/or 1No sample per 50m³ of soil imported, whichever is greater.
 - The thickness of the clean cover layer and the presence of a geotextile/marker layer will be verified by a series of hand dug pits in areas of soft landscaping, with accompanying photographs.
 - These samples shall be sent directly to an MCERTS and UKAS accredited laboratory for testing.
 - The results will be screened against the criteria given previously within Table 4.1, which comprise current published Environment Agency residential end-use soil guideline values (SGVs) or where unavailable, LQM or S4UL generic assessment criteria – safe for use levels for human health risk assessment. If these values become out of date, reference shall be made to replacement industry approved values.

5.2 Remediation Verification/Completion Report

5.2.1 The Remediation Completion Report shall include the following information:

- Summary of all works undertaken
- Photographic log of the works.
- A full chemical soil analysis results schedule.
- Full details of any further contamination reported during construction works
- Disposal documentation for any spoil or asbestos materials spoil.

5.3 Reporting

5.3.1 All activities will be documented (including photographs) to show compliance with the Remediation Strategy. This documentation will be kept on site at all times during the works and updated daily as part of a field record as the works progress, which would be available for regulatory inspection at any time. All documentation would be included in a final verification report to be presented to the Local Authority.

6

REFERENCES

- A possible approach for generating site specific assessment criteria for polycyclic aromatic hydrocarbons (draft internal HPA briefing note)
- CIEH & CL:AIRE (2008) *Guidance on comparing soil contamination data with a critical concentration*. London: Chartered Institute of Environmental Health (CIEH) and CL:AIRE
- Environment Agency (2020); Land Contamination Risk Management (LCRM). <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>
- Environment Agency, NHBC & CIEH (2008) *Guidance for the safe development of housing on land affected by contamination*. R & D Publication 66. London: Environment Agency
- Environment Agency Technical Report P45 “Polycyclic Aromatic Hydrocarbons (PAH): Priorities for Environment Quality Standard Development
- LQM/CIEH S4ULs. LQM, 2014
- National Planning Policy Framework. Department for Communities and Local Government, March 2012

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