

New Farm, Alderton

Remediation Strategy



Report for:

Ashford Homes (SW) Ltd

Reference:

P1156/CS-2583

T & P Regeneration Ltd
Unit 5, Septimus
Hawkfield Business Park
Bristol
BS14 0BN
Tel: 0117 927 7756

Document Revision

Client		Ashford Homes (SW) Ltd		Project Reference	P1156/CS-2583
Site Address		New Farm, Alderton			
Issue	Date	Revision Details	Prepared by	Checked by	Approved by
01	10/12/2024	Original Issue	Matthew Carr	Sam Butcher	

The information and advice contained within this report is provided by T&P Regeneration Ltd for sole use and reliance by its Client in performance of T&P Regeneration Ltd's duties under its contract with the Client. Any advice, opinions or recommendations within this report should be read and relied upon only in the context of the report as a whole. The advice within the reports is based upon the information made available to T&P Regeneration Ltd within the financial and timeframe constraints imposed. The report is based on UK standards, codes and common practice current at time of writing. When considering this report regard should be given to the terms and conditions of T&P Regeneration Ltd's contract with the Client under which the report was prepared. The copyright of this report is held by T&P Regeneration Ltd. Should the Client wish to release this report to a Third Party for that party's reliance, T&P Regeneration Ltd may agree to such release provided that: (i) T&P Regeneration Ltd's written agreement to such release is obtained (ii) By release of the report, T&P Regeneration Ltd assumes no duties, liabilities or obligations to the Third Party and that the Third Party does not acquire any rights whatsoever against T&P Regeneration Ltd (iii) T&P Regeneration Ltd accepts no responsibility for any loss incurred by the Client through the Client's release of the report to the Third Party. Following final issue of this report, T&P Regeneration Ltd has no further obligation to advise the Client on any matters such as changes in legislation or codes of practice that may affect the advice contained within the report.

CONTENTS

1	INTRODUCTION.....	1
1.1	BACKGROUND	1
1.2	SITE LOCATION AND DESCRIPTION	1
1.3	PROPOSED DEVELOPMENT	1
1.4	PREVIOUS REPORTS	1
1.5	OBJECTIVES	1
1.6	REPORT LIMITATIONS	1
2	BACKGROUND INFORMATION AND SITE SETTING.....	2
2.1	INFORMATION SOURCES	2
2.2	GEOLOGY, HYDROLOGY AND HYDROGEOLOGY	2
2.3	SITE HISTORY	2
2.4	SUMMARY OF PREVIOUS FINDINGS	2
3	REFINED CONCEPTUAL SITE MODEL	5
3.1	GENERAL	5
3.2	SOURCES	5
3.3	RISK EVALUATION	5
4	REMEDIATION STRATEGY	7
4.1	REMEDIATION OBJECTIVES	7
4.2	REMEDIATION STRATEGY	7
4.3	RISK MITIGATION	7
4.4	SOIL RE-USE OPPORTUNITIES	8
4.5	RESIDUAL RISK AND UNCERTAINTY	8
5	MANAGEMENT OF WORKS	9
5.1	HEALTH AND SAFETY	9
5.2	ON-SITE MATERIAL MANAGEMENT	9
5.3	WASTE MANAGEMENT STRATEGY	9
5.4	WASTE CHARACTERISATION	10
5.5	CONTROL MEASURES AND MONITORING	10
6	VERIFICATION.....	11
6.1	CAPPING SOILS IN SOFT LANDSCAPING AREAS	11
6.2	RECORD KEEPING	11
6.3	REMEDIATION COMPLETION REPORT	12

APPENDICES

- A DRAWINGS**
- B IMPORTED SOIL CRITERIA**

1 INTRODUCTION

1.1 Background

Following instruction from Ashford Homes (SW) Ltd (the 'client'), this report presents a Remediation Strategy for a proposed residential development at New Farm, Alderton (the 'site').

1.2 Site Location and Description

The site is approximately centred on National Grid Reference 384020, 182751 and the nearest postcode is SN14 6NW. A site location plan is included within Appendix A.

The site comprises an irregular shaped parcel of land approximately 120m in length by 90m in width, with a total area of approximately 1 hectare. The site is currently occupied by 6N^o derelict stone barns and several metal framed Dutch barns. A number of the barns comprise of horse stables, but all appear to have been disused for a significant period of time.

1.3 Proposed Development

Information presented to T&P Regeneration Ltd (T&P) indicates that the proposed development is intended to comprise the demolition of 2N^o modern agricultural buildings and the conversion of 6N^o barns into residential dwellings with associated areas of communal and private soft landscaping with hard landscaped access and parking. A development layout plan is included in Appendix A.

1.4 Previous Reports

Previous reports pertaining to the site are listed in Table 1.1. Pertinent information is summarised in this report where appropriate. However, reference should be made to these reports directly for further detail.

Table 1.1 Summary of Previous Reports

Date	Title	Reference	Author
September 2024	Desk Study and Ground Investigation Report	P1156/CS-2256	T&P

1.5 Objectives

The objective of this remediation strategy is to outline the risk mitigation measures required to address identified unacceptable risks presented to human health or the environment in the context of the site's proposed future end use as a residential development.

1.6 Report Limitations

The recommendations, interpretations and conclusions of this report are based solely on the site conditions observed and the ground conditions revealed during previous site investigation works undertaken by T&P. No responsibility can be accepted for the accuracy of third-party data. Due to the inherent variability of the ground conditions between exploratory hole positions these conditions can only be interpreted and are accurate only for the date of the investigation works.

2 BACKGROUND INFORMATION AND SITE SETTING

2.1 Information Sources

Reference has been made to previous reports and publicly available information from the Environment Agency, MAGIC and BGS websites, as relevant. Background and site setting information has been provided to provide context to the site, proposed development and remediation strategy.

2.2 Geology, Hydrology and Hydrogeology

The site is indicated to be entirely underlain by Jurassic Period mudstone of the Forest Marble Formation, which is understood to comprise *'Silicate-mudstone, greenish grey, variably calcareous and in the south notably sandy, with lenticular typically cross-bedded limestone units'*.

The Environment Agency classifies the Forest Marble Formation as a Secondary A aquifer. The site is within the outer catchment of a source protection zone (Zone 2C). There are no records of licensed groundwater abstractions within 500m of the site.

The nearest surface water feature is a pond located approximately 9m to the south-east of site.

2.3 Site History

From the time of the earliest maps in the late 1800's, the site is shown to be a working farm, with a number of farm buildings located across the site. The site has remained largely unchanged until the present day with only minor adjustments to building layouts.

The area off site to the south was shown to largely comprise agricultural land, in the earliest maps, with residential and farm buildings associated with the village of Alderton to the north. Few significant changes are noted up to the present.

2.4 Summary of Previous Findings

A summary of principal findings of previous ground investigation is provided below. Further detail can be obtained with reference to the original reports.

2.4.1 Ground Conditions

Made ground was encountered in the majority of the exploratory holes, to a maximum depth of 0.80mbgl. It was typically encountered as a clayey sandy gravel, and locally as a sandy gravelly clay within TP03, with inclusions of concrete, brick, limestone and flint. Within TP03 rare carbonaceous material was also observed within the made ground. Within TP04, inclusions of tarmacadam and rare pottery and glass were recorded.

Topsoil was encountered within TP02 to a depth of 0.25mbgl, comprising sandy gravelly clay with inclusions of limestone and flint.

The Forest Marble Formation was typically encountered initially as a firm becoming stiff, variably sandy and gravelly clay. Within TP01 and TP02 clayey sand was encountered to a maximum depth of 1.30mbgl. At depth it was encountered as either a medium strong limestone or an extremely weak mudstone. The majority of the pits were terminated due to refusal on the limestone or mudstone.

2.4.2 Evidence of Contamination

With the exception of the made ground, no significant visible or olfactory evidence of any contamination was noted during the ground investigation.

2.4.3 Groundwater

Groundwater was not encountered within any of the exploratory holes.

2.4.4 Human Health Risk Assessment

Soil laboratory analysis results were compared against generic standards¹ for a 'residential with homegrown produce' end use.

A single elevated concentration of arsenic at 42mg/kg was recorded within the natural soils at TP03 (0.50 – 0.60mbgl), compared to the adopted screening criteria of 37mg/kg. Statistical assessment of the dataset has not determined this elevated concentration as an outlier and the calculated 95th% UCL of 26mg/kg is noted to be below the screening criteria. In addition, a single elevated concentration of beryllium was recorded within the topsoil at TP02 (0.10 – 0.20mbgl) with a value of 2.0mg/kg, compared to the adopted screening criteria threshold of 1.70mg/kg. Statistical assessment has not determined this concentration to be an outlier and the calculated 95th% UCL of 1.6mg/kg is noted to be below the screening criteria.

Based upon the isolated nature and the fact that concentrations only marginally exceed their respective screening criteria, these exceedances within the natural ground and topsoil are not considered to present a risk to human health receptors.

The screening assessment has identified elevated concentrations of PAH within 2N^o made ground samples. Within TP05 (0.10 – 1.20mbgl), in accordance with HPA guidance² and as detailed in SP1010³, PAH profiling has been undertaken to determine the suitability of the Benzo(a)pyrene (BaP) surrogate marker approach in assessing the significance of the elevated Benzo(b)fluoranthene. The results conclude that the concentration of Benzo(b)fluoranthene does not present an unacceptable risk to human health. Within TP04 (0.10 – 0.20mbgl), due to significantly elevated PAHs likely attributed to tarmacadam fragments, it is considered appropriate to treat the soil results from TP04 as a separate soil population, and therefore representative of a localised hotspot.

2.4.5 Controlled Waters Risk Assessment

Although leachate testing was not undertaken as part of the assessment, with the exception of made ground in the vicinity of TP04, the encountered soil concentrations of mobile contaminants (Polycyclic Aromatic Hydrocarbons) are considered to be below levels of concern. Whilst elevated concentrations of mobile contaminants were recorded within the made ground in TP04, it is noted that concentrations of the same contaminants within the natural soils below the made ground were recorded at levels below the laboratory limits of detection, indicating a negligible leaching pathway.

Based on the findings of the investigation, the risk to controlled water receptors is considered to be low. In addition, based upon the development layout, the impacted soils in the vicinity of TP04 are likely to be required to be removed as part of the construction process, further reducing the low residual risk.

¹ The LQM/CIEH S4ULs for Human Health Risk Assessment. Nathanail, C.P. et al., 2015.

SP1010. Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination. CLAIRE. 2014.

² Risk Assessment Approaches for Polycyclic Aromatic Hydrocarbons (PAHs). HPA Contaminated Land Information Sheet. 2010.

³ SP1010. Development of Category 4 Screening Levels. Defra. 2014.

2.4.6 *Phytotoxic Risk Assessment*

No unacceptable concentrations were previously reported with respect to phytotoxic screening levels.

2.4.7 *Ground Gas Risk Assessment*

Based upon the above, it is considered that, overall, the site has a low ground gas generating potential and that risks to future residents associated with ground gases are low.

The site is located in an area where <1% of homes surveyed are above the action level. As such, no radon protection measures will be required for new development.

2.4.8 *Potable Water Supply*

Soil concentrations of benzo(a)pyrene (BaP) have been found to be endemically elevated across the site within made ground. As such, if installed within the made ground, upgraded water supply pipework should be utilised.

Notwithstanding the above, based upon the limited thickness of made ground recorded on site, it is anticipated that pipework will be installed below the made ground within the natural soils.

3 REFINED CONCEPTUAL SITE MODEL

3.1 General

Following completion of previous ground investigation and risk assessment, a refined conceptual site model has been developed as detailed below. Further detail of the assessment undertaken is provided in previous reports as listed in Table 1.1.

3.2 Sources

With consideration of the assessment summarised in Section 2, the following Areas of Potential Concern (APC) have been identified which require risk mitigation:

- **APC 1:** Made ground associated with previous development.
 - Elevated concentrations of PAHs in the vicinity of TP04 when compared with human health screening levels.
 - Elevated BaP within made ground posing a risk to water supply pipework.

3.3 Risk evaluation

National guidance^{4,5,6} has been considered in the development of the conceptual model for the site to inform an estimation of risk in relation to each plausible source-pathway-receptor (SPR) identified. Table 3.1 presents a summary of the (SPR) relationships identified as a moderate/low risk or higher which will require remedial action and/or management to mitigate unacceptable risks identified, further detail of which will be provided in later sections of this report.

⁴ Contaminated Land Risk Assessment. A Guide to Good Practice. CIRIA C552. 2001.

⁵ Land contamination risk management - <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>.

⁶ Guidance for the Safe Development of Housing on Land Affected by Contamination. NHBC. 2008.

Table 3.1 Source-Pathway-Receptor (SPR) Relationships Requiring Risk Mitigation

APC N°	Source	Pathway (s)	Receptor	Consequence	Probability	Risk*	Comment
1	<u>On-site</u> Made ground associated with previous development.	Oral ingestion	Future residents and maintenance workers	Medium	Low likelihood	Moderate/Low	Made ground physically unsuitable to remain at surface within areas of soft landscaping. Made ground in vicinity of TP04 chemically unsuitable.
		Vegetable uptake	Future residents	Medium	Low likelihood	Moderate/Low	
		Dermal contact	Future residents and maintenance workers	Medium	Low likelihood	Moderate/Low	
		Dust migration/inhalation	Future residents, maintenance workers and off-site residents/workers	Medium	Low likelihood	Moderate/Low	
		Permeation into drinking water supplies	Future residents	Medium	Low likelihood	Moderate/Low	Due to elevated BaP, if installed within the made ground upgraded pipework will be required.

**Where multiple receptors exist the risk classification is based on most sensitive receptor for conservatism.*

4 REMEDIATION STRATEGY

4.1 Remediation Objectives

The objective of the proposed remedial strategy is to render the site suitable for a proposed residential end-use. In addition, the remedial strategy will address statutory risks, such that the site would not be determined as Contaminated Land under Part 2A of the Environmental Protection Act 1995.

4.2 Remediation Strategy

Remedial recommendations are made in the context of the proposed development which will comprise the demolition of 2N^o modern agricultural buildings and the conversion of 6N^o barns into residential dwellings with associated areas of communal and private soft landscaping with hard landscaped access and parking.

In the absence of confirmed cut/fill estimates and information on proposed level changes within the development, remediation measures have been presented in the context of existing site levels. However, in the event that site levels are raised, this may in effect provide a suitable capping thickness and could achieve the remedial requirements set out below subject to the placement/import of chemically and physically suitable material.

4.3 Risk Mitigation

As summarised in Table 3.1, several SPR relationships have been identified which are considered to present an unacceptable risk to identified receptors, and which will require risk mitigation measures to be applied, as discussed further in subsequent sections. Reference should be made to the Remedial Strategy Plan included within Appendix A. Recommendations for risk mitigation actions are made in the context of client supplied development information including earthworks strategy and landscaping proposals. In the event that significant changes to the development proposals are made, these recommendations should be reviewed and updated as necessary.

Remediation verification requirements are set out within Section 6.

4.3.1 *Areas of Soft Landscaping – Front and Rear Gardens in the Vicinity of PAH Impacted Soils*

- In the defined areas of proposed private soft landscaping as shown on the plan within Appendix A, made ground shall be removed down to 600mm below finished level or the top of the natural soils, whichever is least. Levels shall be reinstated to reflect engineering requirements utilising chemically and physically suitable topsoil/sub-soil. A high visibility geotextile shall be provided at the base and sides of excavations as a marker layer where existing made ground is to remain *in situ* at the base of the capping excavations.

4.3.2 *General Recommendations*

- Upgraded water supply pipework will be required if installed within the made ground.
- Within the vicinity of the PAH hotspot, contaminated soils should be stockpiled separately. Any positively identified or suspected contaminated soils should also be stockpiled upon an impermeable barrier to mitigate the potential for cross contamination of underlying soils.
- Where specialist planting is dictated by landscaping proposals, a deeper growth medium may be required, including up to 450mm in areas of proposed shrubs and up to 900mm for

tree pits (which may also require specialist installation in line with BS 5837⁷). These details should be confirmed with the project landscaping adviser.

- In root protection areas (if imposed), it may not be possible to excavate to the required depth using conventional machinery, to provide clean capping. In such circumstances, it is considered that staged excavation of soils, undertaken with an air lance or vacuum excavation equipment would be achievable, with capping soils placed as excavations progress laterally to minimise root disturbance. Alternatively, in the event that excavations within root protection areas cannot be achieved, a 100mm 'no dig' Cellular Confinement System (CCS) should be placed above existing soils, with a minimum of 100mm of suitable topsoil placed above to provide appropriate risk mitigation. The above should be discussed and agreed with the project landscaping advisor.
- Vigilance should be employed for any unforeseen ground conditions when excavating in previously inaccessible areas and when grubbing out, where specialist advice may be required. If during the subsequent construction works additional suspected contaminated soils are subsequently revealed, it will be necessary to contact a suitably qualified environmental consultant who will be able to attend site and advise upon the most appropriate course of action.

4.4 Soil Re-Use Opportunities

As with all construction projects, it is preferable to maximise the reuse of soils on-site and minimise the amounts of off-site disposal. To achieve this whilst accomplishing the remedial objective, a number of potential re-use opportunities have been identified and which are described in later sections of this report which may be undertaken in line with the CL:AIRE Definition of Waste Code of Practice (DoW:CoP).

4.5 Residual Risk and Uncertainty

The following areas of uncertainty have been identified, along with recommendations set out for further work, where appropriate which may assist with refining/understanding attendant risk costs:

- Due to the age of on-site buildings, there is potential for asbestos containing materials to be present. It is recommended that a demolition asbestos survey should be completed prior to demolition of the buildings to inform whether specialist asbestos removal works may be required. Demolition should be undertaken by a competent contractor.

⁷ Trees in relation to design, demolition and construction. Recommendations. BS 5837 2012.

5 MANAGEMENT OF WORKS

5.1 Health and Safety

The works should be carried out in accordance with the Construction (Design & Management) Regulations 2015. These regulations place specific responsibilities on the Principal Contractor, Principal Designer and Employer. The Employer should appoint a Principal Designer and a Principal Contractor for the works.

The Principal Contractor shall develop appropriate methods of working to ensure the health and safety of workers, visitors and neighbours and also protect the environment, in accordance with management procedures outlined in their Construction Phase Plan.

Following completion of the remediation works, pertinent information shall be supplied to the Principal Designer for incorporation into the site Health and Safety File.

5.2 On-Site Material Management

In the event that on-site re-use of made ground is proposed, this may be undertaken in accordance with the CL:AIRE Development Industry Definition of Waste Code of Practice. In this case, a Materials Management Plan (MMP) shall be prepared to document the principles of re-use outlined within this Remediation Strategy prior to any excavation or stockpiling works commencing on site.

Alternatively, application of a U1 waste exemption may be an appropriate route to support re-use of smaller volumes of site won soils in construction projects. This allows re-use of suitable waste rather than virgin raw material providing site complies with standard rules as set out by the Environment Agency⁸.

Re-use of aggregates from inert waste may also be undertaken in line with the WRAP Quality Protocol.

5.3 Waste Management Strategy

It is a requirement of the Landfill Regulations 2002 that all waste must be treated to reduce its quantity and/or its environmental impact before being disposed of to landfill. This process has been undertaken as part of this remediation design and is demonstrated by the following:

- Intrusive ground investigation has been undertaken at the site in order to identify areas where contamination deemed to present an unacceptable risk to identified receptors is present. Reference should be made to previous ground investigation reports for further details.
- The Principal Contractor is required to further reduce the volume of material for off-site disposal and/or treatment by the sorting of inert rubble, metal, etc. from all excavated and/or stockpiled soils where practically possible.

In line with the waste hierarchy, it is preferable to retain as much site won material as possible, in line with the reuse opportunities set out in Section 4.4.

Excavated soils requiring off-site disposal will be transported in road going lorries, in accordance with appropriate duty of care requirements⁹. The waste haulier will be a licensed waste carrier, with evidence of registrations obtained prior to consigning waste for off-site treatment and/or disposal. Appropriate controls will be put in place for handling/transportation of materials

⁸ <https://www.gov.uk/guidance/waste-exemptions-using-waste>

⁹ Waste Duty of Care Code of Practice. Defra. 2018.

including any which may contain asbestos. Laboratory results of the excavated material will be passed on to the haulier and the material will be transported and disposed of accordingly.

Demolition rubble or other recyclable aggregates, metals or other inert and recoverable materials may be segregated for re-use on-site or sent for off-site recycling to an appropriately licensed facility.

5.4 Waste Characterisation

A review of ground investigation data has been completed to support waste characterisation and pre-classification in the event that off-site disposal of soils is required, which is separate to human health or other environmental risk assessment completed to support the remediation strategy. Reference should be made to previous reports for detail on this assessment.

In summary, the waste assessment indicated that the made ground and natural soils encountered will be treated as non-hazardous.

5.5 Control Measures and Monitoring

An environmental risk assessment shall be undertaken by the Principal Contractor which shall establish appropriate environmental control measures and monitoring protocols required during the works, which should be documented within a site-specific Environmental Management Plan. The Principal Contractor shall implement appropriate dust and noise control measures as appropriate and shall ensure that competent staff are on-site to implement the controls when necessary. Where/if movement of asbestos impacted soils/material is required, appropriate controls shall be implemented e.g. damping down and monitoring undertaken as required.

In addition to the above, construction and groundworkers should be made aware of the potential risks associated with made ground soils and when working with soils which may be potentially impacted by asbestos, should allow for appropriate precautionary working practices, personal protective measures and air monitoring in line with Control of Asbestos Regulations: 2012 – 'CAR:2012', as necessary.

6 VERIFICATION

6.1 Capping Soils in Soft Landscaping Areas

6.1.1 Imported Soils

Where imported soils are required within the development as capping soils in front/rear gardens they shall comply with the soil criteria in Appendix B for a 'residential with homegrown produce' end use. All imported soils shall be free of asbestos (<0.001%w/w). Furthermore, it is recommended that the suitability of topsoil in accordance with BS3882¹⁰ is considered, in consultation with a specialist landscaping consultant.

Details of the proposed source of material shall be supplied. It is recommended that soils are tested at source prior to movement and importation to confirm suitability.

Additionally, a representative soil sample should be collected of imported soils for chemical analysis once received at site. Due to the limited extent of capping required, a single sample location is considered sufficient, although 3N^o verification pits should be undertaken to visually confirm capping soils are from the same source and the thickness is sufficient.

All samples shall be submitted to a laboratory with UKAS and MCERTS accredited methods (as appropriate).

Testing shall comprise the following, as a minimum:

- Metals.
- Speciated Polycyclic Aromatic Hydrocarbons (PAHs).
- pH.
- Phenols.
- Total organic carbon.
- Asbestos screening.

6.1.2 Site Won Soils

Existing ground information has determined that on-site topsoil and natural soils are suitable for re-use in all areas of the development and may be re-used without further testing.

Largely made ground has been deemed chemically suitable for reuse within soft landscaped areas, with exception to TP04, where elevated PAHs were recorded. As such, in the vicinity of TP04 the made ground is considered unsuitable for reuse within proposed soft landscaping.

6.1.3 Visual Inspections

Visual inspection should be undertaken in 3N^o locations to confirm placement of appropriate thickness of capping soils and presence of geotextile membrane is in line with requirements of Section 4.3.

6.2 Record Keeping

Records of operations relating to the remediation works will be maintained on-site by the Principal Contractor and provided to the client for inclusion within the Remediation Completion Report. These records shall include the following, where relevant/appropriate:

¹⁰ Specification for Topsoil - 2015

- Photographic records during construction works showing extents of excavation, placement of geotextile membranes and imported material for capping layers, where appropriate;
 - Photos from inspection pits confirming required thickness of capping soils;
 - Environmental monitoring undertaken (if required);
 - Volumes of waste materials disposed off-site including tickets/waste consignment notes;
 - Volumes of imported fill;
 - Validation sample locations;
 - Chemical validation test results including supplier certificates for imported fill;
 - Details of variations and/or contingency arrangements as a result of design variation; and,
- In addition, where reuse of materials is undertaken in line with an MMP the following shall be recorded:
- Wagon movements on- and off-site;
 - On- and off-site soil movement records; and,
 - Volumes and placement locations/depths of soil reuse.

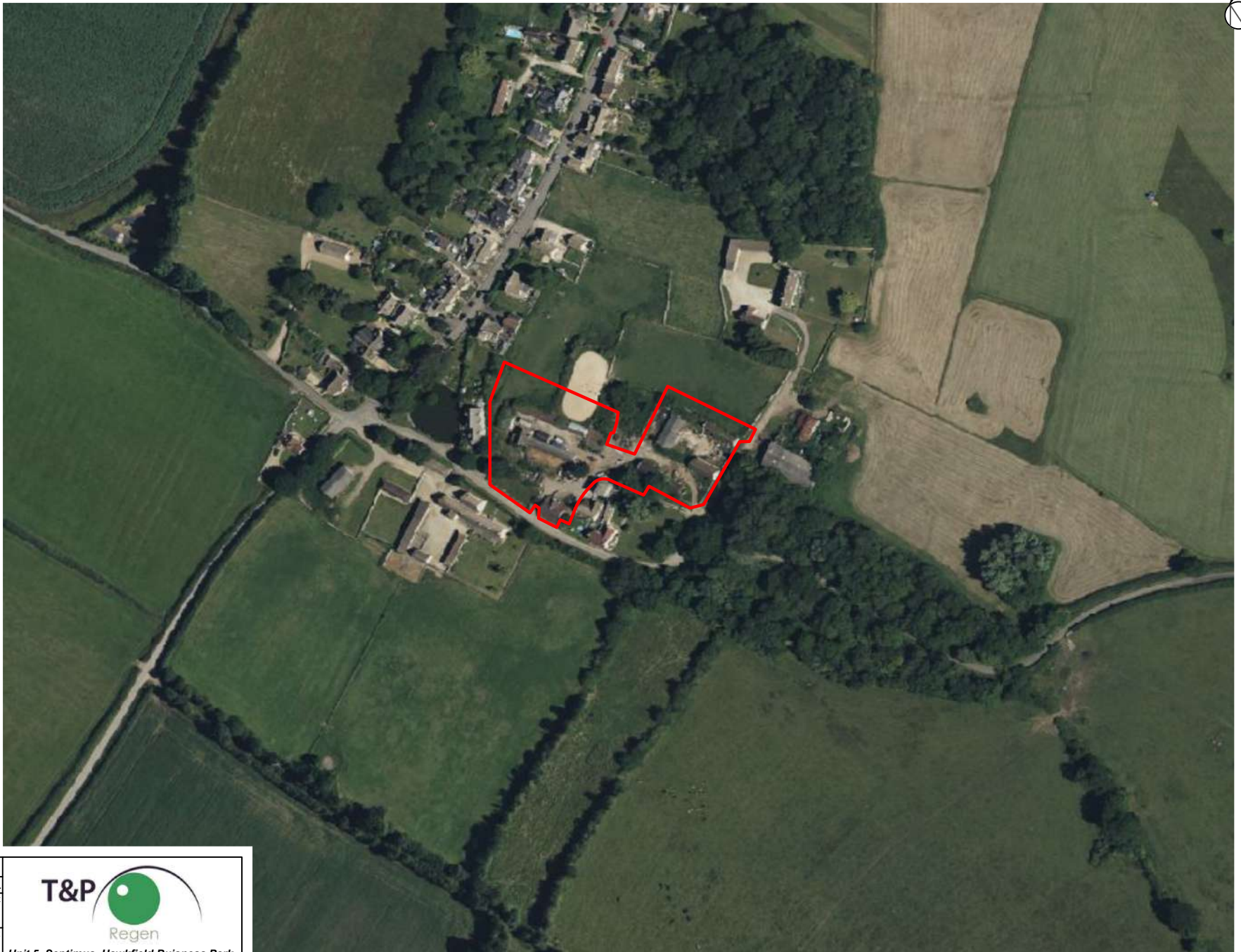
6.3 Remediation Completion Report

A Remediation Completion Report will be prepared that will include a summary of the works undertaken to demonstrate that the remediation objectives have been met. Supporting information will be provided as summarised in Section 6.2, the report will also serve to demonstrate compliance with the principles of material re-use outlined within the supporting MMP and will be submitted to CL:AIRE as a final record, if required.

The Remediation Completion Report shall be issued to the regulators upon completion of the works.

Appendix A – Drawings

— Site Boundary



Base Map
Company: Bing Maps Autodesk Licence
DWG Title: -
DWG Number: -
Date: -

-	-	-	-	-
Drawn	Checked	Amendment	Date	Rev.
Ashford Homes (SW) Ltd		Client		
New Farm, Alderton		Project		
Site Location Plan		Title		
Scale	Date	Drawn by	Check by	Rev.
1:3000@A4	07/08/24	DA	MC	-

T&P

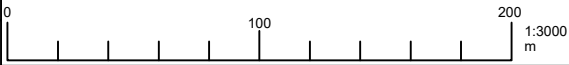


Unit 5, Septimus, Hawkfield Buisness Park,
Bristol, BS14 0BN

Tel: 0117 927 7756

Email: Info@TP-regen.co.uk

0	100	200
1:3000 m		



PROPOSED LANDSCAPE.

TITLE
NEW FARM
ALDER TON

DETAIL
BLOCK PLAN
LAYOUT

NOTES

Requirements for bats:-

- roof void access boxes on barns 2 and 5- see drawings Barn 2-01 & 02 and Barn 5-01
- Schwegler 1FQ externally on barns 3 and 6 see drawings Barn 3-02 and 6-02
- Barns 7 and 9 (garages) are open car ports with open lancets. To be fitted with Schwegler 2F units internally on gables plus partitioned loft areas over bin store ends and as clause 5.12 of Keystone 2021 survey results.
- All barn roofs when restored to be fitted with Type 1F bitumen based felt with vents at eaves and ridges as clause 5.9
- All barn roofs to be fitted with bat slate access points as clause 5.10 locations to be agreed with the ecologist on site.

REVISIONS

- A - update June 17
- B - update July 17
- C - barn 8 removed + part barn 6. 08.10.18
- D - road access changed to highways 21.01.19
- E - Bat requirements noted 26.01.22

SCALE 1:500 @ A3

DATE Dec. 14

DRAWN BY M.W.

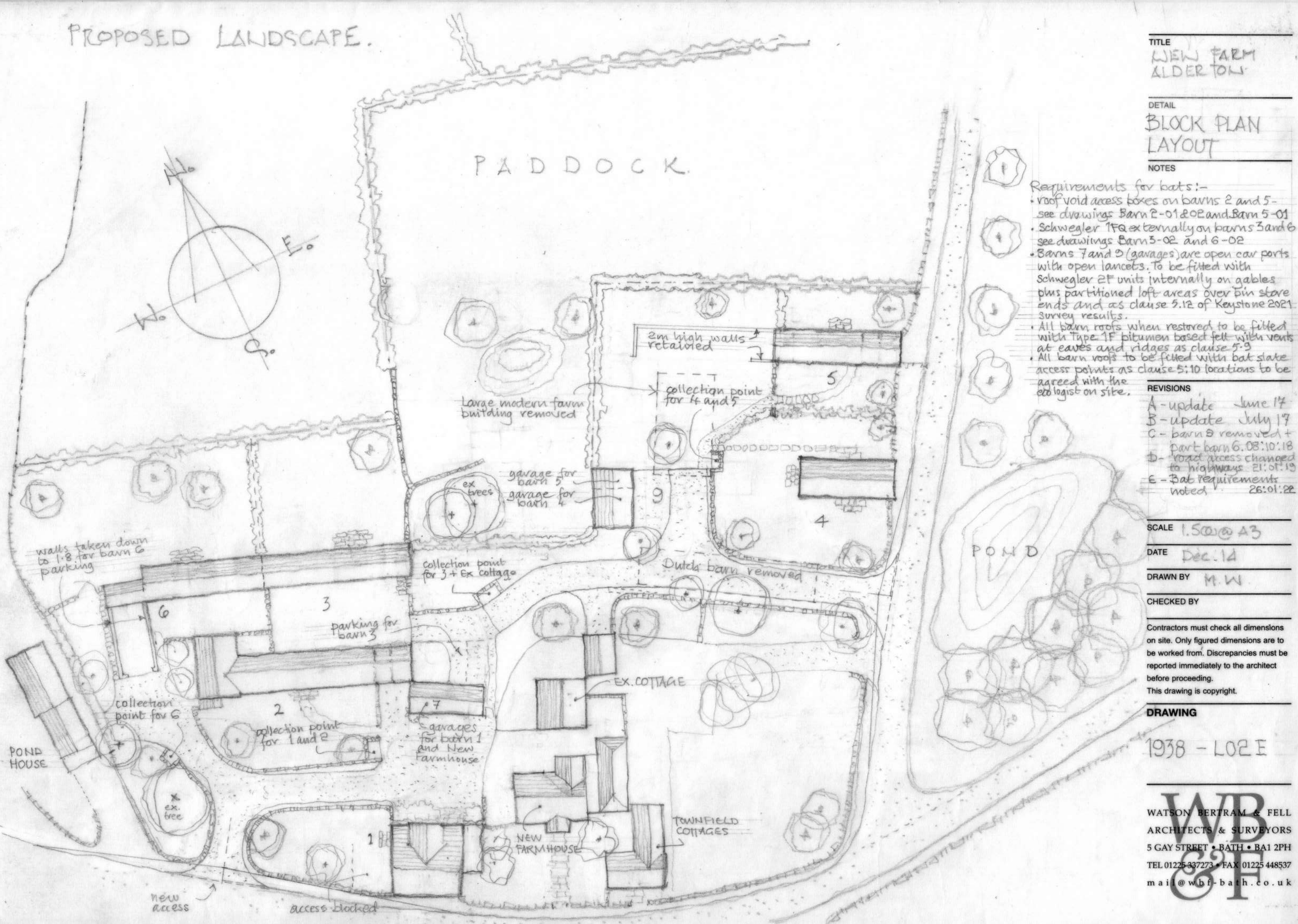
CHECKED BY

Contractors must check all dimensions on site. Only figured dimensions are to be worked from. Discrepancies must be reported immediately to the architect before proceeding.
This drawing is copyright.

DRAWING

1938 - L02 E

WATSON BERTRAM & FELL
ARCHITECTS & SURVEYORS
5 GAY STREET • BATH • BA1 2PH
TEL 01225 337273 • FAX 01225 448537
mail@wb&f-bath.co.uk



Made ground shall be excavated to a minimum depth of 600mm beneath finished level or the top of the natural soils, whichever is least. Levels shall be reinstated utilising chemically and physically suitable imported or site-won soils. A high visibility geotextile marker should be provided at the base and sides of excavations as a marker layer where existing made ground soils are to remain in situ at the base of the capping excavations.

General notes

- Upgraded water supply pipework shall be used if installed within site-wide made ground.
- Where specialist planting is dictated by landscaping proposals, a deeper growth medium may be required, including up to 450mm in areas of proposed shrubs and up to 900mm for tree pits (which may also require specialist installation in line with BS 5837). These details should be confirmed with the project landscaping adviser.
- Vigilance should be employed for any unforeseen ground conditions when excavating in previously inaccessible areas and when grubbing out, where specialist advice may be required.
- The required thickness and quality of capping soils to support the necessary plant growth should be discussed and agreed separately with the project landscaping team as necessary.
- Within the vicinity of the PAH hotspot, contaminated soils should be stockpiled separately. Any positively identified or suspected contaminated soils should also be stockpiled upon an impermeable barrier to mitigate the potential for cross contamination of underlying soils.



Scale	Date	Drawn by	Check by	Rev.	Drawing No.
1:400@A3	09/12/24	DA	MC	-	P1156-01-008

0

25

50

1:400.0003
m

Appendix B – Imported Soil Criteria

SOIL TARGET CONCENTRATIONS – HUMAN HEALTH

Contaminant	Assessment Criteria				
	Residential with homegrown produce	Residential without homegrown produce	POS _{RESI}	Commercial	Source
Heavy Metals					
Arsenic	37	40	79	640	C4SL
Beryllium	1.7	1.7	2.2	12	S4UL
Cadmium	22	150	220	410	C4SL
Chromium III	910	910	1,500	8,600	S4UL
Hexavalent chromium	21	21	21	49	C4SL
Lead*1	200	310	630	2,300	C4SL
Mercury - inorganic	40	56	120	1,100	S4UL
Nickel	180	180	230	980	S4UL
Vanadium	410	1,200	2,000	9,000	S4UL
Selenium	250	430	1,100	12,000	S4UL
Phytotoxic Metals					
Copper	2,400	7,100	12,000	68,000	S4UL
Zinc	3,700	40,000	81,000	730,000	S4UL
Boron	290	11,000	21,000	240,000	S4UL
Organics					
Phenol	280	750.0	760	760	S4UL
PAHs					
Naphthalene*3	15	15	11,000	1,600	C4SL
Acenaphthylene*3	170	2,900	15,000	83,000	S4UL
Acenaphthene*3	210	3,000	15,000	84,000	S4UL
Fluorene*3	170	2,800	9,900	63,000	S4UL
Phenanthrene*3	95	1,300	3,100	22,000	S4UL
Anthracene*3	2,400	31,000	74,000	520,000	S4UL
Fluoranthene*3	280	1,500	3,100	23,000	S4UL
Pyrene*3	620	3,700	7,400	54,000	S4UL
Benz(a)anthracene*3	7.2	11	29	170	S4UL
Chrysene*3	15	30	57	350	S4UL
Benzo(b)fluoranthene*3	2.6	3.9	7.1	44	S4UL
Benzo(k)fluoranthene*3	77	110	190	1,200	S4UL
Benzo(a)pyrene*2	5.0	5.3	10	77	C4SL
Indeno(123-cd) pyrene*3	27	45	82	500	S4UL
Dibenz(ah)anthracene*3	0.24	0.31	0.57	3.5	S4UL
Benzo(ghi)perylene*3	320	360	640	3,900	S4UL
Fuel range hydrocarbons					
Benzene	0.20	0.89	140	27	C4SL
Toluene	130	880	56,000	56,000	S4UL
Ethyl Benzene	47	83	24,000	5,700	S4UL
Xylenes	56	79	41,000	5,900	S4UL
Aromatic C5-C7	70	370	56,000	26,000	S4UL
Aromatic C7-C8	130	860	56,000	56,000	S4UL
Aromatic C8-C10	34	47	5,000	3,500	S4UL
Aromatic C10-C12	74	250	5,100	16,000	S4UL
Aromatic C12-C16	140	1,800	3,800	36,000	S4UL
Aromatic C16-C21	260	1,900	3,800	28,000	S4UL
Aromatic C21-C35	1,100	1,900	3,800	28,000	S4UL
Aromatic C35-C44	1,100	1,900	3,800	28,000	S4UL
Aliphatic C5-C6	42	42	570,000	3,200	S4UL
Aliphatic C6-C8	100	100	60,000	7,800	S4UL
Aliphatic C8-C10	27	27	1,300	2,000	S4UL
Aliphatic C10-C12	130	130	1,300	9,700	S4UL
Aliphatic C12-C16	1,100	1,100	1,300	59,000	S4UL
Aliphatic C16-C35	65,000	65,000	250,000	1,600,000	S4UL
Aliphatic C35-C44	65,000	65,000	250,000	1,600,000	S4UL

Notes:

All values are mg/kg unless stated

C4SL – Category 4 Screening Level as produced by Defra and CL:AIRE –based on 1% SOM

S4UL – Suitable 4 Use Levels as produced by Land Quality Management – based on 1% SOM.

*1 – C4SL for lead based on the LLTC of 3.5µg/dL⁻¹ and C4SL exposure changes.

*2 – BaP can be considered as a marker compound for consideration of other PAHs.

*3 – Threshold values may be discounted based upon use of BaP as a marker compound.

SOIL TARGET CONCENTRATIONS – PHYTOTOXICITY

	Assessment Criteria (Phytotoxic thresholds for plants)	Source
Phytotoxic Metals		
Selenium	10.0	SGV9 Document
Boron	3.0	ICRCL 59/83
Copper	130.0	
Nickel	70.0	
Zinc	300.0	
Cadmium	8.0	Amended Dutch RIVM – Ecotoxicological risk
Chromium	154.0	
Mercury	28.0	