



CONTAMINATED LAND RISK ASSESSMENT REMEDiation VERIFICATION REPORT

Site

95 Preston Drove
Brighton
BN1 6LD

Client

SNAPS Holiday Ltd

Report Reference

PH3-2023-000013

Prepared by

STM Environmental Consultants Ltd

Date

22/12/2023



**CONSULTING GEO-ENVIRONMENTAL
ENGINEERS AND SCIENTISTS**

Phase 1 Contaminated Land Desk Studies, Geo-Environmental Site Investigations, Environmental Due Diligence, Flood Risk Assessments, Surface Water Management Strategies (SuDS), Ecology, Noise and Air Quality Assessments, Environmental Management Systems, GIS & Data Management Systems

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2. DOCUMENT CONTROL



CONTAMINATED LAND RISK ASSESSMENT Remediation Verification Plan Report



Site Address:	95 Preston Drove Brighton BN1 6LD
Site Coordinates:	530772, 106624
Report Reference:	PH3-2023-000013
Version No:	1.0
Prepared for:	SNAPS Holiday Ltd
Date:	22/12/2023
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3. DISCLAIMER

This report and any information or advice which it contains, is provided by STM Environmental Consultants Ltd (STM) and is solely for use by SNAPS Holiday Ltd (Client). Any party other than the Client, using or placing reliance upon any information contained in this report, do so at their own risk.

STM has exercised such professional skill, care and diligence as may reasonably be expected of a properly qualified and competent consultant when undertaking works of this nature. However as the recommendations presented in this report are based on information obtained from third parties (i.e. Desk Study and Site Investigation), whilst we assume that all information is representative of the site and of present conditions, STM gives no warranty, representation or assurance as to the accuracy or completeness of any information, assessments or evaluations presented within this report.

It should be noted that this report has been produced for environmental purposes only. It is based solely on information that has been provided by the Client. STM were not present during the remediation works and can therefore not verify that the works were completed as required by the remediation strategy or any relevant technical manuals referred to.

This report excludes consideration of potential hazards arising from any activities at the Site other than normal use and occupancy for the intended land uses. Hazards associated with any other activities have not been assessed and must be subject to a specific risk assessment by the parties responsible for those activities.

4. INTRODUCTION

STM Environmental Consultants Ltd. were commissioned by SNAPS Holiday Ltd (Client) to undertake a contaminated land remediation verification report for a site located at 95 Preston Drove, Brighton, BN1 6LD.

4.1 Aims and Objectives



The report was produced to support a planning application for the discharge of Condition 2 attached to planning permission BH2022/03061.

Condition 2 states that:

*2. The development hereby permitted shall not be occupied or brought into use until there has been submitted to, and approved in writing by, the local planning authority a written **verification report** by a competent person approved under the provisions of condition (1)c above that any remediation scheme required and approved under the provisions of condition (1)c has been implemented fully in accordance with the approved details (unless varied with the written agreement of the local planning authority in advance of implementation). Unless otherwise agreed in writing by the local planning authority the verification report shall comprise:*

- a) built drawings of the implemented scheme;*
- b) photographs of the remediation works in progress;*
- c) certificates demonstrating that imported and/or material left in situ is free from contamination.*

The findings of the remediation verification works are detailed within this report. This report should be read in conjunction with the following reports also produced for the site by STM Environmental Consultants:

-  Phase 1 Desk Study Report (ref: PH1-2023-000037; May 2023)
-  Phase 2 Environmental Site Investigation Report (ref: PH2-2023-000026; June 2023)

5. BACKGROUND

This section provides a summary of the findings of the contaminated land risk assessment carried out on this site to date.

5.1 Site Location and Description

The site is located at 95 Preston Drove, Brighton, BN1 6LD and is centred at national grid reference 530772, 106624. The site has an area of approximately 0.02ha.

A map showing the location of the site is presented below.

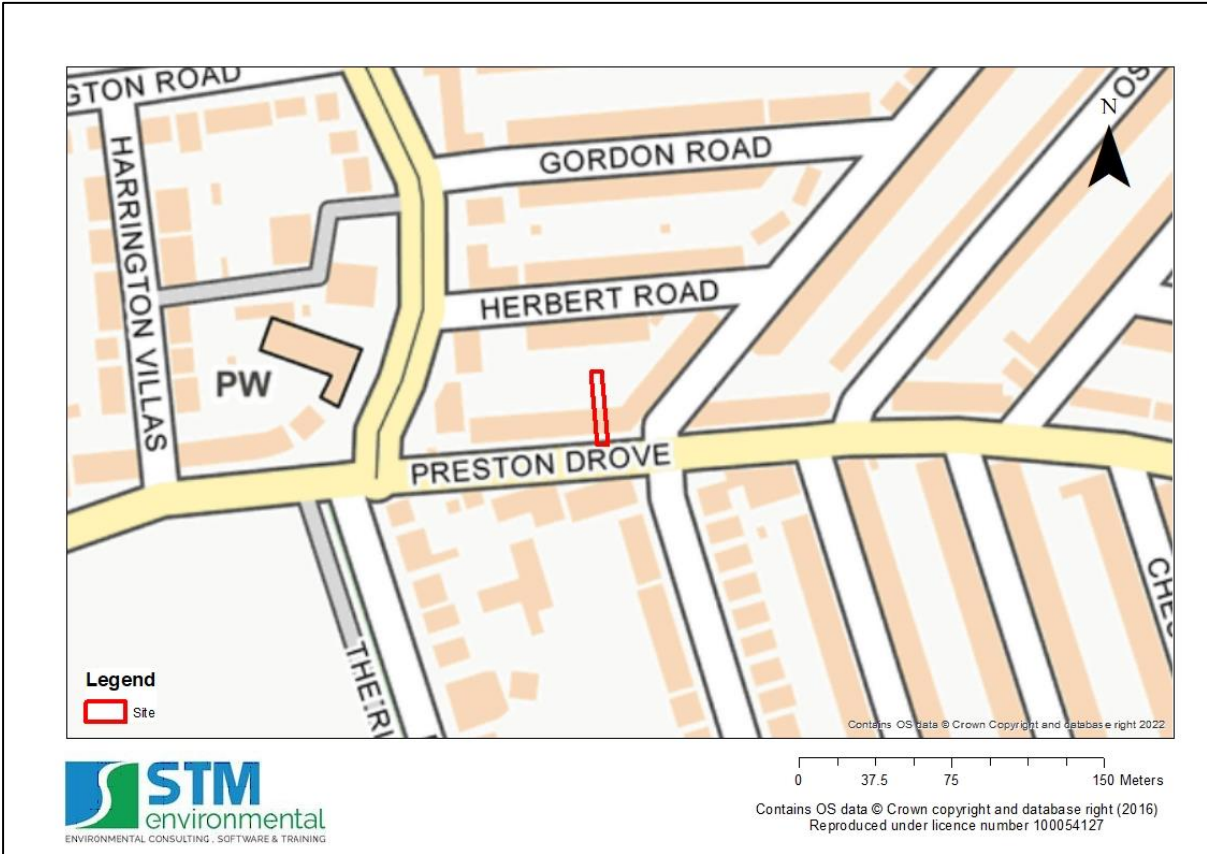


Figure 1: Site Location and Aerial Maps

- Site Ref: 95 Preston Drive, Brighton, BN1 6LD
- Report Reference: PH3-2023-000013
- Date: December 23

5.2 Summary of Phase 1 Desk Study

A Phase 1 Desk Study was carried out by STM in May 2023 which indicated that the site has been subject to past Potentially Contaminative Land Uses (PCLUs) including Allotment Gardens and a Laundry while off site PCLUs include Allotment Gardens (adjacent N, E & W), Tramway (45m SE) and an Electricity Substation (45m NW). A conceptual risk site model was constructed and a qualitative risk assessment carried out. This identified potentially significant Potential Pollutant Linkages with respect to human health and property receptors.

Data from the BGS indicates that the site is underlain by bedrock deposits consisting of Newhaven Chalk Formation (Chalk) which are classified as a Principal Bedrock Aquifer. No superficial deposits were identified during the search. The site does lie within Source Protection Zone 2 and there are no recorded water abstractions within 500m of the site.

No surface water receptors were identified onsite or within 250m of the site.

No designated ecological receptors were identified onsite or within 250m of the site.

The desk study recommended that an intrusive site investigation be carried out to determine the presence and extent of any soil contamination at the site.

5.3 Summary of Phase 2 Site Investigation

An intrusive investigation was undertaken by STM Environmental Consultants in 1st June 2023 and comprised 3no. sampling locations (BH01 – BH03) excavated to a maximum depth of 1.9m bgl using a hand auger. A total of 5no. soil samples were collected and submitted to an UKAS/MCERTS accredited laboratory for analysis of Heavy Metals, TPH, BTEX, PAHs and Asbestos.

A Generic Quantitative Risk Assessment was carried out where the results of the soil sample analysis were compared to Generic Assessment Criteria (GAC) for a residential with home-grown produce land use scenario.

This identified elevated concentrations above the adopted GAC for Lead in soils from 2no. of the borehole locations (BH01 and BH02). No Asbestos was detected in any of the samples analysed.

A summary of contaminants that were found to be present in concentrations that exceeded the GAC is shown Table 1 below.

Table 1: Contaminants Exceeding GAC

Contaminant	GAC (mg/kg)	No. of Exceedances	Measured Concentrations (mg/kg)		Exceedance Borehole Locations
			Mean	Maximum	
Lead	200	2	210.1	405.7	BH01/1*, BH02/1

The Conceptual Risk Model for the site was reassessed incorporating the results of the site investigation.

As remedial works, the report stated that the proposed development would be covered entirely in permanent hard standing, thereby breaking any potential pathways to human health receptors.

6. REMEDIATION WORKS

6.1 Capping of Contaminated Areas Under Hard Standing

The Client provided photos showing that the proposed garden area is now covered entirely by permanent hardstanding. The photographs, which can be seen in [Appendix 1](#), show the laying of the concrete cover which is understood to have a minimum thickness of minimum of 150mm, in December 2023. The concrete will be covered by a layer of astroturf, as can be seen in [Appendix 2](#).

It is understood that no waste soil was removed from the site during the development works and no soil was imported either.

7. REMEDIATION VALIDATION

7.1 Reassessment of Potential Pollutant Linkages

The Conceptual Risk Model formulated in the Phase 1 and Phase 2 works was reassessed taking into account the results of the Remediation Validation works.

The Potential Pollutant Linkages (PPLs) identified as being plausible were as follows:

- PPL1a - Direct contact and inhalation risks to on-site human health receptors;
- PPL1b - Injury/Death of on-site human health receptors related to explosion due to off-site ground gas; accumulation in confined spaces within dwellings.;
- PPL2a - Direct contact and inhalation risks to off-site human health receptors as a result of contaminants migrating from the site;
- PPL2b - Injury/Death of off-site human health receptors related to explosion due to off-site ground gas accumulation in confined spaces within dwellings.;
- PPL3 - Derogation of groundwater quality resulting from the migration of contaminants into the aquifer
- PPL4 - Derogation of surface water quality resulting from the migration of contaminants into the surface water receptor;
- PPL5a - Damage to buildings and services resulting from on-site contaminants;
- PPL5b - Damage to property related to explosion due to off-site ground gas accumulation in confined spaces.

The table below presents the results of the re-assessment.

Table 2: Conceptual Risk Model

CRITERIA	POTENTIAL POLLUTANT LINKAGES							
	PPL1a	PPL1b	PPL2a	PPL2b	PPL3	PPL4	PPL5a	PPL5b
SEVERITY	Major (4)	Major (4)	Major (4)	Moderate (3)	Moderate (3)	Moderate (3)	Moderate (3)	Moderate (3)
LIKELIHOOD	Improbable (1)	Improbable (1)	Improbable (1)	Improbable (1)	Improbable (1)	Improbable (1)	Improbable (1)	Improbable (1)
RISK	Low (4)	Low (4)	Low (4)	Very Low (3)	Very Low (3)	Very Low (3)	Very Low (3)	Very Low (3)
POTENTIALLY SIGNIFICANT?	NO	NO	NO	NO	NO	NO	NO	NO

As can be seen all the identified PPLs were considered unlikely to have the potential to be significant.

8. CONCLUSIONS AND RECOMMENDATIONS

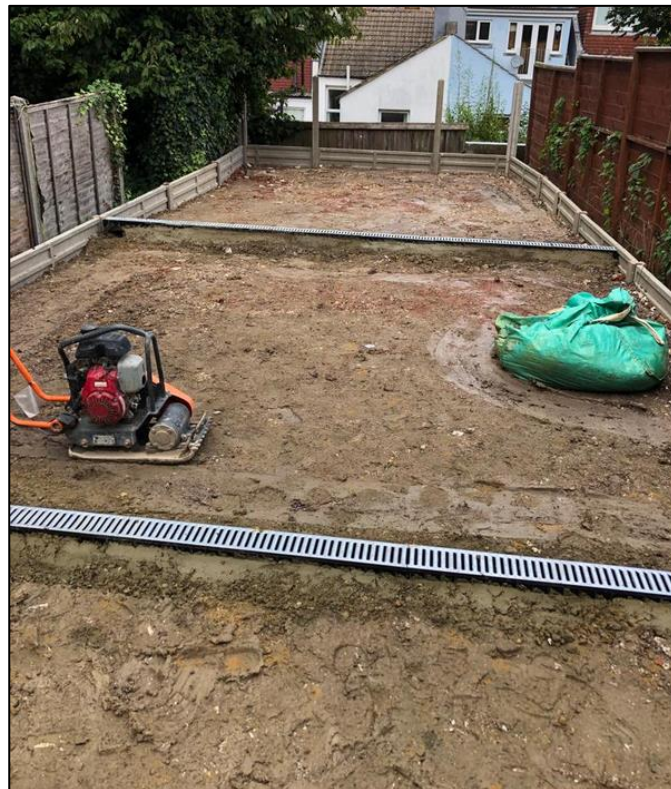
Based on the results of the site investigation and the proposed development comprising entirely permanent hardstand, the site is now considered suitable for its proposed end use and in compliance with the requirements of Condition 2 of the planning application.

8.1 Information gaps and uncertainties

Assumptions have been made regarding the nature and scale of the activities that took place on the site and the types of potential contaminants that may have resulted. These assumptions will need to be reviewed along with the Conceptual Site Model should further information that has not previously been taken into account come to light.

9. APPENDICES

9.1 Appendix 1 – Photographs



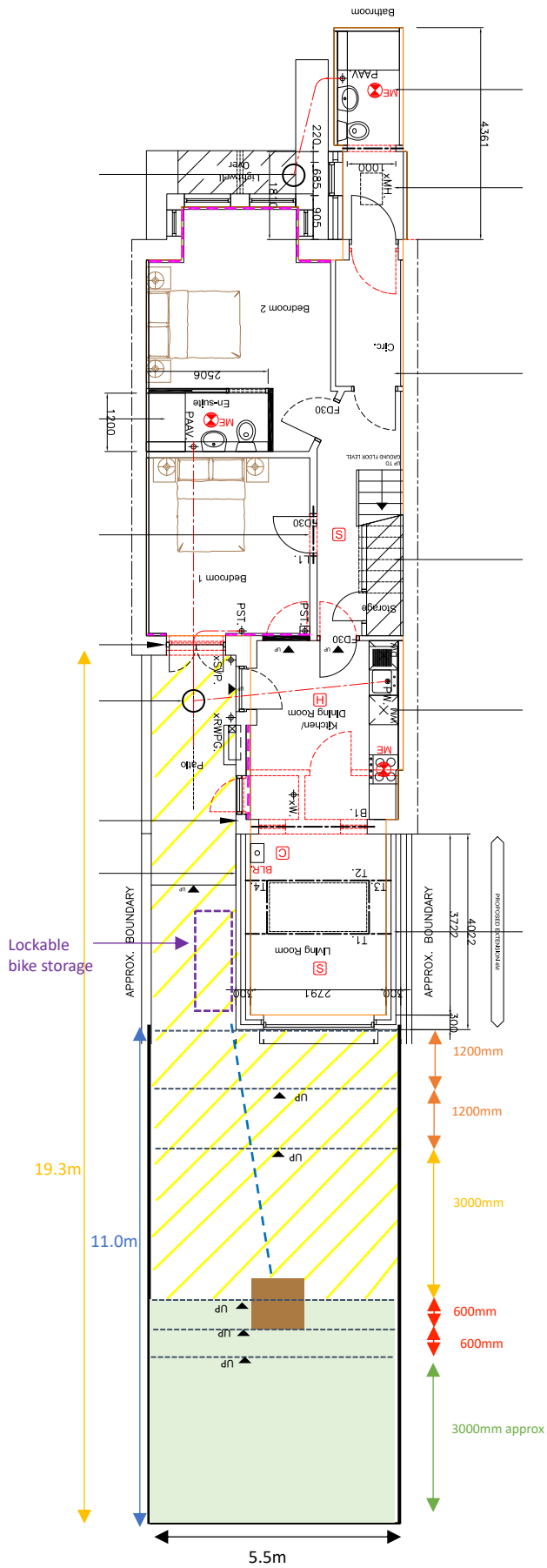


9.2 Appendix 2 – Built Drawings of Implemented Scheme



Remediation strategy for garden:

- Hard landscape with concrete
- Create drainage throughout garden to ensure stormwater is diverted.
- Create stepped level garden covering concrete with both patio and AstroTurf for visual appeal.



= Concrete slab underneath, patio on top



= Soakaway, 5m from the building line



= Concrete slab underneath, AstroTurf on top

