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EMBASSY VILLAGE

PHASE 4 VALIDATION REPORT

Curtins Ref: **077442-CUR-00-XX-RP-GE-00005**
Revision: P01
Issue Date: 23 February 2026

Client Name: Embassy

Client Address: The Message Trust, Lancaster House, Harper Road, Sharston Industrial Area, Manchester, M22 4RG
Site Address: Dawson Street, Manchester, M15 4NU

Rev	Description	Issued by	Checked	Date
P01	Issue	RBJ	JL	23 February 2026

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1 INTRODUCTION

This Verification Report has been prepared by Curtins for Embassy (the Client) to provide a descriptive and factual record of the works undertaken as evidence that the requirements of the agreed upon Remediation Strategy have been met at the Embassy Village, Dawson Street, Manchester, M15 4NU. It is understood that the development comprises of creating permanent housing solutions for the homeless to be located beneath existing railway arches. The development will also include associated amenities including a village hall, staff pod, outside space with landscaping, and potentially an allotment/growing area and sports areas.

It is intended that this report is submitted to allow the discharge of Planning Condition 6b, associated with Application Ref. 129923/FO/2021

Planning Condition 6b reads:

> *"When the development commences, the development shall be carried out in accordance with the previously agreed Remediation Strategy, and a Completion/Verification Report shall be submitted to and approved in writing by the City Council as local planning authority.*
>
> *In the event that ground contamination, groundwater contamination and/or ground gas, not previously identified, are found to be present on the site at any time before the development is occupied, then development shall cease and/or the development shall not be occupied until, a report outlining what measures, if any, are required to remediate the land (the Revised Remediation Strategy) is submitted to and approved in writing by the City Council as local planning authority and the development shall be carried out in accordance with the Revised Remediation Strategy, which shall take precedence over any Remediation Strategy or earlier Revised Remediation Strategy."*

Details and records of remedial works undertaken at the site have been collated herein from information provided by Vermont (Principal Contractor) and obtained by Curtins through site visits.

1.1 Requirements of the Verification Report

This verification report is to account for the following;

- A descriptive and factual record of the remedial works (removal of unacceptable materials, provision of engineered capping layer comprising a clean soil layer) undertaken by the contractor and their appointed sub-contractors;
- Verification of all remedial works:
  - Photographic record of ground works activities;
  - Evidence of following the Asbestos Management Plan;
  - Records of any other significant visual or olfactory evidence of contamination encountered during site clearance and excavations;
  - Waste consignment notes for contaminated materials removed from site;
  - Imported soil quality certificates, including soil chemical analysis; and
  - Suitable thickness (minimum of 450mm for soft landscaping, 600mm for shrub planting, and 900mm for tree planting) of imported topsoil (minimum of 150mm) and subsoil.

1.2 References

The Verification Report has been prepared with reference to the following reports:

- Reference 1: Curtins (2024) Embassy Village Remediation Strategy (Ref. 077442-CUR-00-XX-RP-GE-003-P01).
- Reference 2: Curtins (2022) Phase 2 Site Investigation for Embassy Village (Ref. 077442-CUR-XX-XX-RP-G-0002-P01).

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- Reference 3: Curtins (2021) Phase 1 Preliminary Risk Assessment, Embassy Village, Manchester (Ref. 077442-CUR-00-XX-RP-GE-001-V02).
- Reference 4: Curtins (2025) Unexpected Contamination at Embassy Village (Ref. 077442-CUR-XX-XX-T-GE-00003-P01)

1.3 Project Background

A Phase 1 Preliminary Site Assessment Desktop Study (Ref. 3) was undertaken on the site by Curtins in 2021. A Ground Investigation was subsequently undertaken on site by Curtins in 2022 with an associated Phase 2 Ground Investigation Report issued, (Ref. 2).

The above works concluded the following pollutant linkages (outlined in Table 1) were considered to present a potential risk to human health and would require specific remedial measures to enable to safe redevelopment of the site for its proposed end-use.

Table 1 – Potential Pollutant Linkages

PCL	Sources	Receptor	Potential Pathway	Risk
1	Made Ground soils containing elevated concentrations of asbestos fibres and buildings contains potential asbestos containing materials (ACM).	**On-Site** Construction workers	Direct contact, dermal uptake, soil and dust ingestion and inhalation of dust and fibres.	**Moderate/Low** Undertake a demolition asbestos survey of buildings/structures located on-site. Appropriate PPE for construction staff and suitable asbestos management measures during construction, detailed in an Asbestos Management Plan.
2		**On-Site** Residents and staff	Direct contact, dermal uptake, soil and dust ingestion and inhalation. Inhalation of dust and fibres	**Moderate/Low** Provision of a suitable thickness of clean inert cover in all areas of soft landscaping, allotments, and tree pits as part of future development works.
3		**Off-Site** Residents and passers-by.	Dust / fibre release and migration off-site, followed by inhalation of dust and fibres	**Moderate/Low** Suitable asbestos management measures during construction detailed in an Asbestos Management Plan.
4	Made Ground soils containing elevated concentrations of Polycyclic Aromatic Hydrocarbons (PAHs), lead and arsenic in relation to *Residential with home grown produce GAC.* Made Ground soils containing elevated concentrations of Polycyclic Aromatic Hydrocarbons (PAHs), Total Petroleum Hydrocarbons (TPHs), lead, arsenic, cadmium, chromium VI, Nickel, Zinc and Copper in relation to *Allotment* GAC.	**On-Site** Construction workers.	Direct contact, dermal uptake, soil and dust ingestion and inhalation.	**Moderate/Low** Appropriate PPE for construction staff. Construction and Environmental Management Plan to be used during construction works.
5		**On-Site** Residents and staff, and allotment grown produce	Direct contact, dermal uptake, soil and dust ingestion and inhalation.	**Moderate/Low** Provision of a suitable thickness of clean inert cover in all areas of soft landscaping, allotments, and tree pits as part of future development works.
6		**Off-Site** Residents and passers-by.	Soil and dust migration followed by direct contact, ingestion and inhalation.	**Moderate/Low** Construction and Environmental Management Plan to be used during construction works.

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To address the elevated risks the proposed remediation works were detailed in the Curtins Remediation Strategy (Ref.1), together with health and safety management during construction, asbestos management, and measures for dealing with unexpected contamination appropriately through a 'Strategy for Handling Potentially Contaminated Soils and Contaminative Incidents on Site'.

For further background details the previous reports referenced above should be consulted. It is assumed that the Client is in receipt of these reports and that they have also been submitted to and accepted by Manchester City Council to discharge relevant planning conditions.

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2 REMEDIAL WORKS UNDERTAKEN

In this document the term 'remediation' is used to define specific works required to address the potential issues arising from asbestos fibres, and contaminated soils, with due account taken for the proposed end-user.

In order to address the risk from elevated concentrations of volatile and non-volatile contamination in soils including asbestos containing materials the following remedial measures were outlined to be required.

- **Remedial Action 1:** Asbestos Management, Including Handpicking and Removal of ACMs.
- **Remedial Action 2:** Engineered Capping. Installation of a suitable thickness of clean inert cover in all areas of soft landscaping.

Measures were also provided for dealing appropriately with unexpected contamination encountered on site, through the use of a Strategy for Handling Potentially Contaminated Soils and Contaminative Incidents on Site.

2.1 Remedial Action 1 – Asbestos Management Including Handpicking and Removal of Asbestos Containing Materials (ACMs)

Remedial Action 1 required an asbestos management to be put in place during construction, along with a recommendation for removal and handpicking of Asbestos Containing Materials (ACMs) identified during the Curtins Phase 2 Site Investigation (Ref. 2).

Potential Pollutant Linkage 2 identified at the site relates to the inhalation of asbestos fibres in soil-derived dust from on-site Made Ground. It was determined that remedial measures were required due to the presence of ACMs.

2.1.1 Asbestos Management, Unexpected Contamination & Contaminative Incidents

Curtins were notified by Vermont in August 2024 that Asbestos Containing Materials (ACMs) were identified on the Embassy village. The location of the ACMs were at the ground surface within overgrown vegetation likely to be fly tipped waste.

The vegetation, unknowingly containing the ACMs, was stockpiled within isolated small stockpiles onsite. Samples were collected by the Remediation Contractor onsite (Rhodar) and confirmed through laboratory analysis to comprise of asbestos cement, asbestos insulation board and degraded asbestos paper/board products. Rhodar developed a strategy for the removal of asbestos including a risk assessment and plan of works. More information is provided within the letter report titled Unexpected Contamination at Embassy Village (Ref. 4). Correspondence was also provided to the Contaminated Land Officer for approval in principal, included in Appendix F and Appendix G.

Curtins provided onsite supervision in October 2024 to witness Trial Pits being undertaken by Rhodar which were to provide assurance and evidence that ACMs are localised to site surface and not more widespread in the subsurface at depth.

Vermont Construction provided a statement to confirm that no additional unexpected contamination (other than stated above) was encountered (Appendix G).

2.2 Remedial Action 2 – Engineered Capping. Installation of a suitable thickness of clean inert cover in all areas of soft landscaping

Remedial Action 2 required the installation of engineered capping due to the presence of asbestos and the exceedances of arsenic, lead, PAHs and TPHs in soil identified in the Curtins Phase 2 Site Investigation (Ref. 2).

Hardstanding areas are considered sufficient to break the potential contaminant linkage and therefore no specific remediation measures were required. However, a risk remained in landscaped areas (private gardens and soft landscaping) of exposure to contaminated Made Ground. The proposed minimum depth of cover varied between 600mm (Allotments),450mm (soft landscaping), and 900mm (tree pit). A demarcation layer was proposed beneath the capping layer within the allotments and soft landscaping areas.

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Verification of the installed engineered capping measures to soft landscaped areas and tree pits was undertaken to ensure remediation has been undertaken as specified and demonstrate the effectiveness of the remediation. Figures 1 shows the location of soft landscaping areas present on site, hand excavated inspection pits were undertaken as part of the verification process, drawing included in Appendix A. It was undertaken in general accordance with the verification and validation plan set out in Curtins Remediation Strategy (Ref. 1). It is noted that initially proposed allotments/growing areas are no longer included within the scheme.



Figure 1 – Map showing the different areas of engineered landscaping on Site

2.2.1 Validation of Imported Soil Quality

Topsoil and subsoil were understood to have been imported from a single source, known as *'Francis Farm'*.

Source chemical analysis testing was undertaken by the supplier, and laboratory testing certificates have been provided to Curtins for review and are enclosed in *Appendix C* (Consulting Geoenvironmental and Geotechnical Engineers, Analytical Report Ref. 23-64139). The topsoil sample was described as a brown clay and sand with gravel. The soil sample did not exceed thresholds against the 2.5% SOM for Residential with plant uptake. The soil was therefore considered to be suitable for import. No subsoil was imported to site, as such no source testing results for subsoil were required. It is assumed that the imported material to be from a greenfield source.

Imported topsoil inspected on-site comprised soft, dark brown, slightly gravelly, very sandy clay.

Curtins Remediation Strategy states that 1 sample per 50m^3 of brownfield topsoil is required per source (minimum of 3 samples), and 1 sample per 100m^3 of remediated soils is required per source (minimum of 3 samples). Approximately 300m^3 of topsoil has been imported to site, with Curtins obtaining six soil samples on 13th January 2026. Three of these samples within the northern landscaping and the remaining three samples from the three separate landscaping

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sections within the south of the site. A drawing is enclosed with the locations where the soil samples TS01 to TS06 were taken.

The above samples have been analysed for a contamination suite in accordance with the Curtins Remediation Strategy.

Testing was undertaken by Envirolab, a UKAS and MCERTs accredited laboratory, and schedule for the suite of analytes described in *Table 2.*

Table 2 – Environmental Chemical Analysis Suite

Suite Ref.	Analyte	LOD
Soils Suite A	Asbestos Screen, pH and Soil Organic Matter (SOM)	-
	Arsenic, Chromium, Chromium VI, Copper, Lead, Selenium, Zinc, Nickel	1 - 5 mg/kg
	Boron (water soluble)	1 mg/kg
	Cadmium	0.5 mg/kg
	Mercury	0.17 mg/kg
	Cyanide (total)	1 mg/kg
	Phenols (screen)	0.2 mg/kg
	PAHs (USEPA 16)	0.01 – 0.08 mg/kg
	TPH (Aro/Ali Split)	0.01 to 1 mg/kg

Copies of the environmental chemistry testing certificates are presented in *Appendix C.* The screening criteria for which soil chemical testing results were assessed against, Curtins GACs: *Residential with Gardens End-Use with SOM of 6%,* are presented in *Appendix D*.

No exceedances were recorded above the “maximum permissible concentrations” and no asbestos containing materials or fibres were identified.

No visual contaminants were evident on sampling and inspection, and each of the soil samples did not record any chemical concentrations which exceeded the nominated screening criteria. The imported topsoil is therefore deemed ‘suitable for use’.

2.2.2 Validation of Engineered Capping Layer

On the 13th January 2026, Curtins visited site to carry out independent inspections of depth and quality of imported topsoil.

With reference to Figure 1, trial holes were undertaken in the areas detailed in Table 3, confirming the required thickness of topsoil and subsoil.

Table 3 – Recorded Capping Thickness

Hand Pit	Location	Date	Thickness	Pass / Fail
			Topsoil	
HP01	Tree Pit	13/01/2026	900	Pass
HP02	Soft Landscaping	13/01/2026	500	Pass
HP03	Tree Pit	13/01/2026	900	Pass
HP04	Soft Landscaping	13/01/2026	500	Pass

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Hand Pit	Location	Date	Thickness	Pass / Fail
			Topsoil	
HP05	Soft Landscaping	13/01/2026	1000	Pass

The locations are shown in Curtins Drawing Ref. 077442-CUR-00-XX-DR-GE-004-P01 presented in *Appendix A* and a photographic log of each verified area is presented in *Appendix B.*

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3 CONCLUSION

Considering the available evidence, Curtins can confirm the following:

- The engineered capping layer is present in all soft landscaping areas and tree pits, and forms an effective barrier between end users and contaminated soils, verified through a visual inspection by Curtins with associated photographic records obtained;
- Imported topsoil source testing and on-site testing has been undertaken in accordance with the Remediation Strategy. Results have been assessed against the maximum permissible concentrations and no exceedances have been found. Therefore, the soil may be considered clean and suitable for use in the development.

In the soft landscaping areas, the Potential Pollutant Linkages, identified in Section 1.3, no longer present an unacceptable risk to site users and visitors, and the site may be considered suitable for use.

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4 REFERENCES

1. Curtins (2024) Embassy Village Remediation Strategy (Ref. 077442-CUR-00-XX-RP-GE-003-P01).
2. Curtins (2022) Phase 2 Site Investigation for Embassy Village (Ref. 077442-CUR-XX-XX-RP-G-00002_P01).
3. Curtins (2021) Phase 1 Preliminary Risk Assessment, Embassy Village, Manchester (Ref. 077442-CUR-00-XX-RP-GE-001-V02).
4. Curtins (2025) Unexpected Contamination at Embassy Village (Ref. 077442-CUR-XX-XX-T-GE-00003-P01)

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5 APPENDICES

Appendix A – Drawings

Appendix B – Photographic Records

Appendix C – Imported Soil Analysis

Appendix D – Generic Assessment Criteria

Appendix E – Laboratory Soil Results

Appendix F – Unexpected Contamination

Appendix G – Correspondence

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Appendix A - Drawings

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Bed 1 - Sun/Partial Shade

Code	Species - Latin	Specification	Pot size (Ltr)
Al	Alchemilla mollis	Full Pot	3L
An	Anemone x hybrida 'Honorine Jobert'	Full Pot	3L
Bp	Bergenia purpurascens 'Irish Crimson'	Full Pot	3L
Bm	Brunnera macrophylla 'Betty Bowring'	Full Pot	3L
Cc	Carex comans 'Frosted Curls'	Full Pot	3L
Cm	Carex morrowii 'Ice Dance'	Full Pot	3L
Dc	Deschampsia cespitosa 'Goldschleier'	Full Pot	3L
Eb	Echinops bannaticus 'Taplow Blue'	Full Pot	3L
Gc	Geranium cinerum 'Ballerina'	Full Pot	3L
Gp	Geranium phaeum 'Walküre'	Full Pot	3L
Ph	Penstemon heterophyllus 'Electric Blue'	Full Pot	2L
Sl	Salvia leucantha 'Purple Velvet'	Full Pot	3L
Sr	Salvia rosmarinus 'Miss Jessopp's Upright'	Full Pot	3L
Sg	Stipa gigantea 'Pixie'	Full Pot	5L
Vp	Verbascum phoeniceum 'Violetta'	Full Pot	3L
Vm	Vinca minor f. alba 'Gertrude Jekyll'	Full Pot	3L

Bed 2 - Full Shade/ Partial Shade

Code	Species - Latin	Specification	Pot size (Ltr)
Bc	Bergenia crassifolia var. pacifica	Full Pot	3L
Bs	Blechnum spicant	Full Pot	3L
Bm	Brunnera macrophylla 'Sea Heart'	Full Pot	3L
Cd	Carex divulsa	Full Pot	5L
Cm	Carex morrowii 'Ice Dance'	Full Pot	3L
Dc	Deschampsia cespitosa 'Goldschleier'	Full Pot	3L
Gl	Geranium phaeum 'Langthorn's Blue'	Full Pot	3L
Gw	Geranium phaeum 'Walküre'	Full Pot	3L
He	Heuchera 'Pink Lipstick'	Full Pot	3L
Lm	Lamium maculatum 'Red Nancy'	Full Pot	3L
Lm	Liriope muscari	Full Pot	3L
Ln	Luzula nivea	Full Pot	3L
Pt	Pachysandra terminalis	Full Pot	3L
Ps	Polystichum setiferum 'Plumosodensum'	Full Pot	3L
Su	Saxifraga x urbium	Full Pot	3L
Vm	Vinca minor f. alba 'Gertrude Jekyll'	Full Pot	3L

Small planters - Full Shade/ Partial Shade

Code	Species - Latin	Specification	Pot size (Ltr)
Ct	Carex testacea	Full Pot	3L
Al	Anemanthele lessoniana	Full Pot	3L
Ca	Calamagrostis arundinacea	Full Pot	3L

Tree Planting

Abbrev.	Botanical Name	Common Name	Root Zone	Height cm	Girth / Dia. cm	Specification
Ac	Alnus Cordata	Italian Alder	RB	400-450	18-20	EHS, 3x Clear stem min 200cm
AlaMS	Amelanchier lamarckii	Juneberry	RB	400-450		3x Multi-stem, Bushy 3 stems min
BtNa	Betula Nigra	River Birch	RB	400-450	18-20	EHS, 3x Clear stem min 200cm
BtUt	Betula Utilis Jacquemontii	Himalayan birch	RB	400-450		3x Multi-stem, Bushy 3 stems min
CK	Cornus Kousa	Dogwood	RB	400-450		3x Multi-stem, Bushy 3 stems min
IlA	Illex Aquifolium	Holly	RB	400-450	18-20	EHS, 3x Clear stem min 200cm

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NOTES:
1. Do not scale from this drawing.
2. Always work to noted dimensions.
3. All dimensions are in millimetres unless otherwise stated.
4. All setting out, levels and dimensions to be agreed on site.
5. The dimensions of all materials must be checked on site before being laid out.
6. This drawing must be read with the relevant specification clauses and detail drawings.
7. Order of construction and setting out to be agreed on site.

KEY

- Full Shade / Partial Shade
- Sun/ Partial Shade Mix — Rain Garden Planting
- Small Planters
- Tree Planting
- S1 — Self Binding Gravel — 50mm depth — Product: Breedon Golden Amber Gravel — Sizes: 12mm — Colour/Finish:Golden

Please note, planters and trees, etc to be undertaken by Embassy.

Revision	Date	Description	Drawn	Apprvd.
S1-P08	08-05-25	Northern Edge / Paving Spec Update	RMC	KR
S1-P07	28-04-25	GA Update	RMC	KR
S1-P06	15-07-24	Planter planting list added	EKH	KR
S1-P05	04-08-23	Stage 4 Draft Issue	EKH	KR
S1-P04	23-02-23	Stage 3	EKH	KR
S1-P03	13-02-23	Stage 3	EKH	KR
S1-P02	22-03-21	Updated arrangement as part of water safety strategy	CS	GB
S1-P01	08-02-21	First Issue	CS	GB

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Client: Embassy

Project: Embassy Village

Drg Title: Softworks General Arrangement

Created on	Created by	Approved by
08/02/2021	CS	GB

Scale	Size	Workstage
1:250	A1	Stage 4

Drg No.: 2596-PLA-XX-XX-DR-L-2000
Suitability: S1
Revision: P08

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Topsoil Sample Location

Hand Dug Pit Location

Rev:	Description:	Date:	By:	Chkd:

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Status:

INFORMATION

Project:

EMBASSY VILLAGE

Drg Title:

LOCATION OF SOIL SAMPLES AND HAND PITS

Scale:	Size:	First Issue:	Drawn:	Checked:
NTS	A3	05/02/26	RBJ	JL

Drg No: 077442-CUR-00-XX-DR-GE-004

Rev: P01

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Appendix B – Photographic Records & Inspection Sheets

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Photographic Record:

Project: Embassy Village – HP01 (Tree Pit)
Sheet: 1





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Photographic Record:

Project: Embassy Village – HP02 (soft landscaping)
Sheet: 2







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Photographic Record:

Project: Embassy Village – HP03 (Tree Pit)
Sheet: 3







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Photographic Record:

Project: Embassy Village – HP04 (Soft Landscaping)
Sheet: 4





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Photographic Record:

Project: Embassy Village – HP05 (Soft Landscaping)
Sheet: 5





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Appendix C – Imported Soils Analysis

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Adopted Soil Generic Assessment Criteria
Sandy loam with 6.0% SOM

Contaminants	Residential with Home Grown Produce	Residential Without Home Grown Produce	Allotments	Commercial	Public open space (Residential)	Public park POS$_{park}$
Metals, Semi-Metals & non-metals						
Antimony		550		7500		
Arsenic	37	40	49	640	79	170
Beryllium	1.7	1.7	35	12	2.2	63
Boron	290	11000	45	240000	21000	46000
Cadmium	22	150	3.9	410	220	880
Chromium III	910	910	18000	8600	1500	33000
Chromium VI	21	21	170	49	21	250
Copper	2400	7100	520	68000	12000	44000
Lead	200	310	80	2300	630	1300
Mercury (elemental)	1.2	1.2	21	58	16	30
Mercury (inorganic)	40	56	19	1100	120	240
Methylmercury	11	15	6	320	40	68
Nickel	130	180	53	980	230	800
Selenium	250	430	88	12000	1100	1800
Vanadium	410	1200	91	9000	2000	5000
Zinc	3700	40000	620	730000	81000	170000
Inorganic Compounds						
Cyanide	24	24	24	1400	24	24
Asbestos	-	-	-	-	-	-
Organic contaminants						
Aliphatic Risk Banded Hydrocarbons - TPH CWG method						
Aliphatic EC5 - EC6 TPHs	160	160	3900	12000	600000	180000
Aliphatic EC>6 - EC8 TPHs	530	530	13000	40000	620000	320000
Aliphatic EC>8 - EC10 TPHs	150	150	1700	11000	13000	21000
Aliphatic EC>10-EC12 TPHs	760	770	7300	47000	13000	24000
Aliphatic EC>12-EC16 TPHs	4300	4400	13000	90000	13000	26000
Aliphatic EC>16 - EC35 TPHs	110000	110000	270000	1800000	250000	490000
Aliphatic EC>35 - EC44 TPHs	110000	110000	270000	1800000	250000	490000
Aromatic Risk Banded Hydrocarbons - TPH CWG method						
Aromatic EC5 - EC7 TPHs	300	1400	57	86000	56000	92000
Aromatic EC>7 - EC8 TPHs	660	3900	120	180000	56000	100000
Aromatic EC>8 - EC10 TPHs	190	270	51	17000	5000	9300
Aromatic EC10 - EC12 TPHs	380	1200	74	34000	5000	10000
Aromatic EC12 - EC16 TPHs	660	2500	130	38000	5000	10000
Aromatic EC>16 - EC21 TPHs	930	1900	260	28000	3800	7800
Aromatic EC>21 - EC35 TPHs	1700	1900	1600	28000	3800	7900
Aromatic EC>35 - EC44 TPHs	1700	1900	1600	28000	3800	7900
Long Chain Aliphatic and Aromatic Hydrocarbons						
Aliphatic and Aromatic EC >44-70	1900	1900	3000	28000	3800	7900
Aromatic Hydrocarbons						
Benzene	0.87	3.3	0.18	98	140	230
Ethyl benzene	260	440	91	27000	25000	27000
Toluene	690	3900	120	180000	56000	100000
Xylene	310	430	160	30000	43000	31000
MTBE	160	220	90	24000		
Phenol	420	2300	280	3200	3200	3200
Polycyclic Aromatic Hydrocarbons (PAH) - Individual Compound Assessment						
Naphthalene	85	85	200	8400	17000	1900
Acenaphthylene	920	6000	160	100000	15000	30000
Acenaphthene	1100	6000	200	100000	15000	30000
Fluorene	860	4500	160	71000	9900	20000
Phenanthrene	440	1500	90	23000	3100	6300
Anthracene	11000	37000	2200	540000	74000	150000
Fluoranthene	890	1600	290	23000	3100	6400
Pyrene	2000	3800	620	54000	7400	15000
Benzo(a)anthracene	13	15	13	180	29	62
Chrysene	27	32	19	350	57	120
Benzo(b)fluoranthene	3.7	4	3.9	45	7.2	16
Benzo(k)fluoranthene	100	110	130	1200	190	440
Benzo(a)pyrene (only)	3	3.2	3.5	36	5.7	13
Indeno(123cd)pyrene	41	46	39	510	82	180
Dibenzo(ah)anthracene	0.3	0.32	0.43	3.6	0.58	1.4
Benzo(ghi)perylene	350	360	640	4000	640	1600

Sample ID	TS01	TS02	TS03	TS04	TS05	TS06
Depth of Sample	0.05	0.05	0.05	0.05	0.05	0.05
Date Sampled	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26
Metals, Semi-Metals & non-metals						
Antimony	-	-	-	-	-	-
Arsenic	7	8	8	8	8	8
Beryllium	-	-	-	-	-	-
Boron	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chromium III	11	13	13	11	11	10
Chromium VI	<1	<1	<1	<1	<1	<1
Copper	34	37	37	31	31	32
Lead	72	70	69	63	65	68
Mercury (elemental)	-	-	-	-	-	-
Mercury (inorganic)	0.24	<0.17	<0.17	0.21	0.18	0.23
Methylmercury	-	-	-	-	-	-
Nickel	11	10	11	11	11	10
Selenium	<1	<1	<1	<1	<1	<1
Vanadium	-	-	-	-	-	-
Zinc	55	66	89	49	50	52
Inorganic Compounds						
Cyanide	<1	<1	<1	<1	<1	<1
Asbestos	NAD	NAD	NAD	NAD	NAD	NAD
Organic contaminants						
Aliphatic Risk Banded Hydrocarbons - TPH CWG method						
Aliphatic EC5 - EC6 TPHs	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic EC>6 - EC8 TPHs	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatic EC>8 - EC10 TPHs	<1	<1	<1	<1	<1	<1
Aliphatic EC>10-EC12 TPHs	<1	<1	<1	<1	<1	<1
Aliphatic EC>12-EC16 TPHs	<1	<1	<1	<1	<1	<1
Aliphatic EC>16 - EC35 TPHs	<1	<1	1	1	1	1
Aliphatic EC>35 - EC44 TPHs	-	-	-	-	-	-
Aromatic Risk Banded Hydrocarbons - TPH CWG method						
Aromatic EC5 - EC7 TPHs	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatic EC>7 - EC8 TPHs	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
Aromatic EC>8 - EC10 TPHs	<1	<1	<1	<1	<1	<1
Aromatic EC10 - EC12 TPHs	<1	<1	<1	<1	<1	<1
Aromatic EC12 - EC16 TPHs	1	<1	2	1	1	4
Aromatic EC>16 - EC21 TPHs	5	2	8	5	6	21
Aromatic EC>21 - EC35 TPHs	25	14	28	26	28	52
Aromatic EC>35 - EC44 TPHs	-	-	-	-	-	-
Long Chain Aliphatic and Aromatic Hydrocarbons						
Aliphatic and Aromatic EC >44-70	-	-	-	-	-	-
Aromatic Hydrocarbons						
Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ethyl benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MTBE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenol	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Polycyclic Aromatic Hydrocarbons (PAH) - Individual Compound Assessment						
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	0.09
Acenaphthylene	0.07	0.04	0.53	0.06	0.05	0.1
Acenaphthene	0.07	0.02	0.21	0.05	0.04	0.07
Fluorene	0.05	0.01	0.19	0.04	0.03	0.06
Phenanthrene	0.47	0.17	2.61	0.4	0.27	0.57
Anthracene	0.07	0.04	0.53	0.06	0.05	0.1
Fluoranthene	0.66	0.37	2.68	0.74	0.62	0.86
Pyrene	0.65	0.36	2.14	0.72	0.61	0.85
Benzo(a)anthracene	0.36	0.21	0.96	0.39	0.36	0.45
Chrysene	0.41	0.24	0.93	0.44	0.42	0.55
Benzo(b)fluoranthene	0.37	0.23	0.68	0.44	0.47	0.53
Benzo(k)fluoranthene	0.15	0.08	0.28	0.14	0.16	0.19
Benzo(a)pyrene (only)	0.32	0.2	0.64	0.41	0.41	0.51
Indeno(123cd)pyrene	0.22	0.14	0.31	0.28	0.27	0.31
Dibenzo(ah)anthracene	<0.04	<0.04	0.07	<0.04	0.05	<0.04
Benzo(ghi)perylene	0.2	0.13	0.26	0.25	0.24	0.29

Exceedances to be highlighted

Minimum	Maximum
-	-
7	8
-	-
<1	<1
<1	<1
10	13
<1	<1
31	37
63	72
-	-
<0.17	0.24
-	-
10	11
<1	<1
-	-
49	89
<1	<1
NAD	NAD
<0.01	<0.01
<0.02	<0.02
<1	<1
<1	<1
0	0
1	1
0	0
0	0
0.02	0.02
0	0
0	0
1	4
2	21
14	52
0	0
0	0
<0.01	<0.01
<0.01	<0.01
<0.01	<0.01
<0.01	<0.01
<0.01	<0.01
<0.2	<0.2
0.09	0.09
0.04	0.53
0.02	0.21
0.01	0.19
0.17	2.61
0.04	0.53
0.37	2.68
0.36	2.14
0.21	0.96
0.24	0.93
0.23	0.68
0.08	0.28
0.2	0.64
0.14	0.31
0.05	0.07
0.13	0.29

Appendix D – Generic Assessment Criteria

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Human Health GQRA Rationale and Hierarchy

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Background

Detailed guidance on human health risk assessment is available within several documents, published by both the Environment Agency, Defra, CL:AIRE, LQM/CIEH and Public Health England as referenced below (references a-h).

A Generic Quantitative Risk Assessment (GQRA) is carried out for the Potential Contaminant Linkages (PCLs) investigated by screening of soil contamination data against relevant Generic Assessment Criteria where available.

Generic Assessment Criteria are available for a range of different land use scenarios, soil organic matter (SOM) and soil types. Curtins have adopted available GACs for a sandy loam soil at 1%, 2.5% and 6% SOM using various sources.

GAC Hierarchy

A summary of and hierarchy for adopted GACs is identified below:

i) **Category 4 Screening Levels (C4SLs):** In March 2014 Defra published C4SLs for arsenic, benzene, benzo(a)pyrene, cadmium, hexavalent chromium, and lead as part of the 'Phase 1 Project'. These values were derived to support the revised Part 2A Statutory Guidance issued in 2012 in which four categories of contaminated land are included, ranging from Category 1 (significant/high risk) to Category 4 (low risk). In 2018 the 'Phase 2 Project' commenced which aims to develop C4SLs for a range of further contaminants. Currently available Phase 2 C4SLs include vinyl chloride, trichloroethene, tetrachloroethene, naphthalene, cis-1,2 dichloroethene, trans 1, 2 dichloroethene and per / polyfluoroalkyl substances (PFAS) and inorganic mercury. Where contaminant concentrations do not exceed C4SLs, there is no risk that the land poses a significant possibility of significant harm (SPoSH) or the level of risk is low, as such land can be demonstrated to be in Category 4 and cannot be determined as contaminated land. The C4SLs are proposed to be more pragmatic (whilst still strongly precautionary) in comparison with SGVs and S4UL's outlined below.

ii) **Suitable for Use Levels (S4ULs):** In 2015 LQM and the Chartered Institute of Environmental Health published generic assessment criteria for 89 substances including metals, BTEX, TPH, polycyclic aromatic hydrocarbons, phenols, chlorinated solvents and other volatile organic compounds. The S4ULs represent a minimal risk to long term human health, derived using health criteria values. The methodology for deriving the S4ULs is based on the Environment Agency CLEA model with consideration of developments in UK human health exposure assessment, in particular the additional land uses and exposure assumptions.

iii) **Other Supplementary Screening Criteria:** In addition to those developed by LQM/CIEH (outlined above), other third party organisations have derived SSVs for a wider range of contaminants and land uses using the CLEA Model. Curtins have adopted these numbers where applicable, including those developed EIC/AGS/CL:AIRE and SoBRA published thresholds.

Alternative Assessment Approaches

PAH – Benzo(a)pyrene Surrogate Marker Assessment

In September 2017 Public Health England (PHE) (Ref. h) published guidance for the use of a surrogate marker approach to assess the risk posed by soil contamination with the genotoxic polycyclic aromatic hydrocarbons (PAHs). The guidance indicates that the use of a marker compound, such as Benzo(a)pyrene, provides a consistent indicator of the amount of 7 other genotoxic PAHs commonly tested for in soil including benz(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, indeno(123cd)pyrene and benzo(ghi)perylene.

Where PAH concentrations of these 8 no. PAHs are present within pre-determined ratios in soil, provided in the guidance, this approach is used, comparing soil concentrations of the marker compound with a Category 4 Screening Level, or site specific assessment criteria. An individual compound assessment is carried out for other PAH compounds not considered in the PHE guidance.

An individual compound assessment is carried out for all PAH compounds where pre-determined ratios are not met for the surrogate marker approach.

Notes

Curtins Generic Assessment Criteria provide further information and notes to be read in conjunction with this assessment rationale.

Human Health GQRA Rationale and Hierarchy

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References

a) Environmental Agency. (2009) Contaminated Land Exposure Assessment (CLEA) v1.071 model.

b) Environment Agency. (2009) Human Health Toxicological Assessment of Contaminants in Soil (report no. SC050021/SR2).

c) Environment Agency. (2009) Updated Technical Background to the CLEA Model (report no.SC050021/SR3).

d) Environment Agency (2005) The UK Approach for Evaluating Human Health Risks from Petroleum Hydrocarbons in Soils Science Report P5-080/TR3.

e) Department of Environment Food and Rural Affairs (DEFRA). (2012) Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance (report no. PB13735).

f) CL:AIRE (2014) Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination, SP1010 Rev 2.

g) LQM & CIEH (2015) S4ULs for Human Health Risk Assessment.

h) Public Health England (2017) Contaminated Land Information Sheet: Risk Assessment Approaches for Polycyclic Aromatic Hydrocarbons (PAHs

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Adopted Soil Generic Assessment Criteria
Sandy loam with 1% SOM

*Refer to Note 13 where Solubility and Vapour Saturation Limits are Exceeded. These values are not GAC and are not to be used as GAC.

Contaminants	Residential with Home Grown Produce	Residential Without Home Grown Produce	Allotments	Commercial	Public open space (Residential)	Public park POS$_{park}$	Solubility Saturation Limit (mg/kg)	Vapour Satuation Limit (mg/kg)
Metals, Semi-Metals & non-metals								
Antimony	-	550	-	7500	-	-		
Arsenic	37	40	49	640	79	170		
Beryllium	1.7	1.7	35	12	2.2	63		
Boron	290	11000	45	240000	21000	46000		
Cadmium	22	150	3.9	410	220	880		
Chromium III	910	910	18000	8600	1500	33000		
Chromium VI	21	21	170	49	21	250		
Copper	2400	7100	520	68000	12000	44000		
Lead	200	310	80	2300	630	1300		
Mercury (elemental)	1.2	1.2	21	58	16	30		25.8
Mercury (inorganic)	200	300	86	5100	610	1300		
Methylmercury	11	15	6	320	40	68		
Nickel	130	180	53	980	230	800		
Selenium	250	430	88	12000	1100	1800		
Vanadium	410	1200	91	9000	2000	5000		
Zinc	3700	40000	620	730000	81000	170000		
Inorganic Compounds								
Cyanide	24	24	24	1400	24	24		
Organic contaminants								
Aliphatic Risk Banded Hydrocarbons - TPH CWG method								
Aliphatic EC5 - EC6 TPHs	42	42	730	3200	570000	95000	304	
Aliphatic EC>6 - EC8 TPHs	100	100	2300	7800	600000	150000	144	
Aliphatic EC>8 - EC10 TPHs	27	27	320	2000	13000	14000	78	
Aliphatic EC>10-EC12 TPHs	130	130	2200	9700	13000	21000	48	
Aliphatic EC>12-EC16 TPHs	1100	1100	11000	59000	13000	25000	24	
Aliphatic EC>16 - EC35 TPHs	65000	65000	260000	1600000	250000	450000	8.48	
Aliphatic EC>35 - EC44 TPHs	65000	65000	260000	1600000	250000	450000	8.48	
Aromatic Risk Banded Hydrocarbons - TPH CWG method								
Aromatic EC5 - EC7 TPHs	70	370	13	26000	56000	76000	1220	
Aromatic EC>7 - EC8 TPHs	130	860	22	56000	56000	87000		869
Aromatic EC>8 - EC10 TPHs	34	47	8.6	3500	5000	7200		613
Aromatic EC10 - EC12 TPHs	74	250	13	16000	5000	9200	364	
Aromatic EC12 - EC16 TPHs	140	1800	23	36000	5100	10000	169	
Aromatic EC>16 - EC21 TPHs	260	1900	46	28000	3800	7600		
Aromatic EC>21 - EC35 TPHs	1100	1900	370	28000	3800	7800		
Aromatic EC>35 - EC44 TPHs	1100	1900	370	28000	3800	7800		
Long Chain Aliphatic and Aromatic Hydrocarbons								
Aliphatic and Aromatic EC >44-70	1600	1900	1200	28000	3800	7800		
Aromatic Hydrocarbons								
Benzene	0.2	0.89	0.039	27	140	190		
Ethyl benzene	47	83	16	5700	24000	17000		518
Toluene	130	880	22	56000	56000	87000		869
Xylene	56	79	28	5900	41000	17000	478 (o-xylene) 576 (p-xylene)	625 (m-xylene)
MTBE	49	73	23	7900			20400	
Phenol	280	750	66	760	760	760		
Polycyclic Aromatic Hydrocarbons (PAH) - Benzo(a)pyrene Surrogate Marker Approach, with reference to C4SL PAH Surrogate Marker Check Sheet where appropriate								
Benzo(a)Pyrene (C4SL Surrogate Marker Approach)	5	5.3	5.7	77	10	21		
Naphthalene	15	15	65	1600	11000	800	76.4	
Acenaphthylene	170	2900	28	83000	15000	29000	86.1	
Acenaphthene	210	3000	34	84000	15000	29000	57	
Fluorene	170	2800	27	63000	9900	20000	30.9	
Phenanthrene	95	1300	15	22000	3100	6200	36	
Anthracene	2400	31000	380	520000	74000	150000		1.17
Fluoranthene	280	1500	52	23000	3100	6300		
Pyrene	620	3700	110	54000	7400	15000		
Polycyclic Aromatic Hydrocarbons (PAH) - Individual Compound Assessment								
Naphthalene	15	15	65	1600	11000	800	76.4	
Acenaphthylene	170	2900	28	83000	15000	29000	86.1	
Acenaphthene	210	3000	34	84000	15000	29000	57	
Fluorene	170	2800	27	63000	9900	20000	30.9	
Phenanthrene	95	1300	15	22000	3100	6200	36	
Anthracene	2400	31000	380	520000	74000	150000		1.17
Fluoranthene	280	1500	52	23000	3100	6300		
Pyrene	620	3700	110	54000	7400	15000		
Benzo(a)anthracene	7.2	11	2.9	170	29	49		
Chrysene	15	30	4.1	350	57	93		
Benzo(b)fluoranthene	2.6	3.9	0.99	44	7.1	13		
Benzo(k)fluoranthene	77	110	37	1200	190	370		
Benzo(a)pyrene (only)	2.2	3.2	0.97	35	5.7	11		
Indeno(123cd)pyrene	27	45	9.5	500	82	150		
Dibenzo(ah)anthracene	0.24	0.31	0.14	3.5	0.57	1.1		
Benzo(ghi)perylene	320	360	290	3900	640	1400		
Chlorinated Aliphatic Hydrocarbons								
Chloroethene (Vinyl chloride)	0.0064	0.015	0.0017	1.1	7.8	18		
1,1-Dichloroethene (DCE)	0.23	0.23	2.8	26			2230	
Cis 1,2, Dichloroethene (DCE)	0.46	0.5	0.89	38	3800	2800	3940	
Trans 1,2, Dichloroethene (DCE)	0.9	0.93	3.7	69	13000	5600	3420	
Trichloroethene (TCE)	0.0093	0.0097	0.032	0.73	76	41		
Tetrachlorethene (PCE)	0.31	0.32	2	24	3200	1400		
1,1,1,2 Tetrachlorethane	1.2	1.5	0.79	110	1400	1500		
1,1,1 Trichlorethane	8.8	9	48	660	140000	57000		1425
1,2-Dichloroethane (Ethylene Dichloride)	0.11	0.16	0.054	12	300	300		
Tetrachloromethane	0.026	0.026	0.45	2.9	890	190		
Trichloromethane (Chloroform)	0.91	1.2	0.42	99	2500	2600		
Per- and Polyfluoroalkyl Substances (PFAS)								
Perfluorooctanoic Acid (PFOA)	0.0076	0.041	0.0014	0.6	0.079	0.17		
Perfluorononanoic Acid (PFNA)	0.013	0.041	0.0027	0.6	0.079	0.17		
Perfluorohexane Sulfonic Acid (PFHxS)	0.0081	0.041	0.0015	0.6	0.079	0.17		
Perfluorooctane Sulfonic Acid (PFOS)	0.0073	0.041	0.0013	0.6	0.079	0.17		

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Adopted Soil Generic Assessment Criteria
Sandy loam with 2.5% SOM

*Refer to Note 13 where Solubility and Vapour Saturation Limits are Exceeded. These values are not GAC and are not to be used as GAC.

Contaminants	Residential with Home Grown Produce	Residential Without Home Grown Produce	Allotments	Commercial	Public open space (Residential)	Public park POS_{park}	Solubility Saturation Limit (mg/kg)	Vapour Satuation Limit (mg/kg)
Metals, Semi-Metals & non-metals								
Antimony		550		7500				
Arsenic	37	40	49	640	79	170		
Beryllium	1.7	1.7	35	12	2.2	63		
Boron	290	11000	45	240000	21000	46000		
Cadmium	22	150	3.9	410	220	880		
Chromium III	910	910	18000	8600	1500	33000		
Chromium VI	21	21	170	49	21	250		
Copper	2400	7100	520	68000	12000	44000		
Lead	200	310	80	2300	630	1300		
Mercury (elemental)	1.2	1.2	21	58	16	30		25.8
Mercury (inorganic)	200	300	86	5100	610	1300		
Methylmercury	11	15	6	320	40	68		
Nickel	130	180	53	980	230	800		
Selenium	250	430	88	12000	1100	1800		
Vanadium	410	1200	91	9000	2000	5000		
Zinc	3700	40000	620	730000	81000	170000		
Inorganic Compounds								
Cyanide	24	24	24	1400	24	24		
Organic contaminants								
Aliphatic Risk Banded Hydrocarbons - TPH CWG method								
Aliphatic EC5 - EC6 TPHs	78	78	1700	5900	590000	130000	558	
Aliphatic EC>6 - EC8 TPHs	230	230	5600	17000	610000	220000	322	
Aliphatic EC>8 - EC10 TPHs	65	65	770	4800	13000	18000		190
Aliphatic EC>10-EC12 TPHs	330	330	4400	23000	13000	23000		118
Aliphatic EC>12-EC16 TPHs	2400	2400	13000	82000	13000	25000	59	
Aliphatic EC>16 - EC35 TPHs	92000	92000	270000	1700000	250000	480000	21	
Aliphatic EC>35 - EC44 TPHs	92000	92000	270000	1700000	250000	480000	21	
Aromatic Risk Banded Hydrocarbons - TPH CWG method								
Aromatic EC5 - EC7 TPHs	140	690	27	46000	56000	84000	2260	
Aromatic EC>7 - EC8 TPHs	290	1800	51	110000	56000	95000	1920	
Aromatic EC>8 - EC10 TPHs	83	110	21	8100	5000	8500		1500
Aromatic EC10 - EC12 TPHs	180	590	31	28000	5000	9700	899	
Aromatic EC12 - EC16 TPHs	330	2300	57	37000	5100	10000	419	
Aromatic EC>16 - EC21 TPHs	540	1900	110	28000	3800	7700		
Aromatic EC>21 - EC35 TPHs	1500	1900	820	28000	3800	7800		
Aromatic EC>35 - EC44 TPHs	1500	1900	820	28000	3800	7800		
Long Chain Aliphatic and Aromatic Hydrocarbons								
Aliphatic and Aromatic EC >44-70	1800	1900	2100	28000	3800	7800		
Aromatic Hydrocarbons								
Benzene	0.17	0.7	0.034	47	72	100		
Ethyl benzene	110	190	39	13000	24000	22000		1220
Toluene	290	1900	51	110000	56000	95000		1920
Xylene	130	180	67	14000	42000	23000	1120	1470
MTBE	84	120	44	13000			33100	
Phenol	550	1300	140	1500	1500	1500		
Polycyclic Aromatic Hydrocarbons (PAH) - Benzo(a)pyrene Surrogate Marker Approach, with reference to C4SL PAH Surrogate Marker Check Sheet where appropriate								
Benzo(a)Pyrene (C4SL Surrogate Marker Approach)	5	5.3	5.7	77	10	21		
Naphthalene	36	36	130	3700	15000	1200	183	
Acenaphthylene	420	4600	69	97000	15000	30000	212	
Acenaphthene	510	4700	85	97000	15000	30000	141	
Fluorene	400	3800	67	68000	9900	20000	76.5	
Phenanthrene	220	1500	38	22000	3100	6200		
Anthracene	5400	35000	950	540000	74000	150000		
Fluoranthene	560	1600	130	23000	3100	6300		
Pyrene	1200	3800	270	54000	7400	15000		
Polycyclic Aromatic Hydrocarbons (PAH) - Individual Compound Assessment								
Naphthalene	36	36	130	3700	15000	1200	183	
Acenaphthylene	420	4600	69	97000	15000	30000	212	
Acenaphthene	510	4700	85	97000	15000	30000	141	
Fluorene	400	3800	67	68000	9900	20000	76.5	
Phenanthrene	220	1500	38	22000	3100	6200		
Anthracene	5400	35000	950	540000	74000	150000		
Fluoranthene	560	1600	130	23000	3100	6300		
Pyrene	1200	3800	270	54000	7400	15000		
Benzo(a)anthracene	11	14	6.5	170	29	56		
Chrysene	22	31	9.4	350	57	110		
Benzo(b)fluoranthene	3.3	4	2.1	44	7.2	15		
Benzo(k)fluoranthene	93	110	75	1200	190	410		
Benzo(a)pyrene (only)	2.7	3.2	2	35	5.7	12		
Indeno(123cd)pyrene	36	46	21	510	82	170		
Dibenzo(ah)anthracene	0.28	0.32	0.27	3.6	0.57	1.3		
Benzo(ghi)perylene	340	360	470	4000	640	1500		
Chlorinated Aliphatic Hydrocarbons								
Chloroethene (Vinyl chloride)	0.01	0.019	0.0031	1.4	7.8	19		
1,1-Dichloroethene (DCE)	0.4	0.41	5.6	46			3940	
Cis 1,2, Dichloroethene (DCE)	0.78	0.84	1.7	64	3800	2400	6610	
Trans 1,2, Dichloroethene (DCE)	1.6	1.7	0.75	120	13000	7000	6170	
Trichloroethene (TCE)	0.02	0.02	0.072	1.5	78	54		
Tetrachlorethene (PCE)	0.7	0.71	4.8	55	3300	1900		
1,1,1,2 Tetrachlorethane	2.8	3.5	1.9	250	1400	1800		
1,1,1 Trichlorethane	18	18	110	1300	140000	76000		2915
1,2-Dichloroethane (Ethylene Dichloride)	0.18	0.24	0.1	17	210	330		
Tetrachloromethane	0.056	0.056	1	6.3	920	270		
Trichloromethane	1.7	2.1	0.83	170	2500	2800		
PFAS								
Perfluorooctanoic Acid (PFOA)	0.0076	0.041	0.0014	0.6	0.079	0.17		
Perfluorononanoic Acid (PFNA)	0.013	0.041	0.0027	0.6	0.079	0.17		
Perfluorohexane Sulfonic Acid (PFHxS)	0.0081	0.041	0.0015	0.6	0.079	0.17		
Perfluorooctane Sulfonic Acid (PFOS)	0.0073	0.041	0.0013	0.6	0.079	0.17		

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Adopted Soil Generic Assessment Criteria
Sandy loam with 6% SOM

*Refer to Note 13 where Solubility and Vapour Saturation Limits are Exceeded. These values are not GAC and are not to be used as GAC.

Contaminants	Residential with Home Grown Produce	Residential Without Home Grown Produce	Allotments	Commercial	Public open space (Residential)	Public park POS$_{park}$	Solubility Saturation Limit (mg/kg)	Vapour Satuation Limit (mg/kg)
Metals, Semi-Metals & non-metals								
Antimony		550		7500				
Arsenic	37	40	49	640	79	170		
Beryllium	1.7	1.7	35	12	2.2	63		
Boron	290	11000	45	240000	21000	46000		
Cadmium	22	150	3.9	410	220	880		
Chromium III	910	910	18000	8600	1500	33000		
Chromium VI	21	21	170	49	21	250		
Copper	2400	7100	520	68000	12000	44000		
Lead	200	310	80	2300	630	1300		
Mercury (elemental)	1.2	1.2	21	58	16	30		25.8
Mercury (inorganic)	200	300	86	5100	610	1300		
Methylmercury	11	15	6	320	40	68		
Nickel	130	180	53	980	230	800		
Selenium	250	430	88	12000	1100	1800		
Vanadium	410	1200	91	9000	2000	5000		
Zinc	3700	40000	620	730000	81000	170000		
Inorganic Compounds								
Cyanide	24	24	24	1400	24	24		
Organic Compounds								
Aliphatic Risk Banded Hydrocarbons - TPH CWG method								
Aliphatic EC5 - EC6 TPHs	160	160	3900	12000	600000	180000	1150	
Aliphatic EC>6 - EC8 TPHs	530	530	13000	40000	620000	320000	736	
Aliphatic EC>8 - EC10 TPHs	150	150	1700	11000	13000	21000		451
Aliphatic EC>10-EC12 TPHs	760	770	7300	47000	13000	24000		283
Aliphatic EC>12-EC16 TPHs	4300	4400	13000	90000	13000	26000	142	
Aliphatic EC>16 - EC35 TPHs	110000	110000	270000	1800000	250000	490000		
Aliphatic EC>35 - EC44 TPHs	110000	110000	270000	1800000	250000	490000		
Aromatic Risk Banded Hydrocarbons - TPH CWG method								
Aromatic EC5 - EC7 TPHs	300	1400	57	86000	56000	92000	4710	
Aromatic EC>7 - EC8 TPHs	660	3900	120	180000	56000	100000		4360
Aromatic EC>8 - EC10 TPHs	190	270	51	17000	5000	9300		3580
Aromatic EC10 - EC12 TPHs	380	1200	74	34000	5000	10000	2150	
Aromatic EC12 - EC16 TPHs	660	2500	130	38000	5000	10000		
Aromatic EC>16 - EC21 TPHs	930	1900	260	28000	3800	7800		
Aromatic EC>21 - EC35 TPHs	1700	1900	1600	28000	3800	7900		
Aromatic EC>35 - EC44 TPHs	1700	1900	1600	28000	3800	7900		
Long Chain Aliphatic and Aromatic Hydrocarbons								
Aliphatic and Aromatic EC >44-70	1900	1900	3000	28000	3800	7900		
Aromatic Hydrocarbons								
Benzene	0.87	3.3	0.18	98	140	230		
Ethyl benzene	260	440	91	27000	25000	27000		2840
Toluene	690	3900	120	180000	56000	100000		4360
Xylene	310	430	160	30000	43000	31000	2620	
MTBE	160	220	90	24000			62700	
Phenol	420	2300	280	3200	3200	3200		
Polycyclic Aromatic Hydrocarbons (PAH) - Benzo(a)pyrene Surrogate Marker Approach, with reference to C4SL PAH Surrogate Marker Check Sheet where appropriate								
Benzo(a)Pyrene (C4SL Surrogate Marker Approach)	5	5.3	5.7	77	10	21		
Naphthalene	85	85	200	8400	17000	1900	432	
Acenaphthylene	920	6000	160	100000	15000	30000	506	
Acenaphthene	1100	6000	200	100000	15000	30000	336	
Fluorene	860	4500	160	71000	9900	20000	183	
Phenanthrene	440	1500	90	23000	3100	6300		
Anthracene	11000	37000	2200	540000	74000	150000		
Fluoranthene	890	1600	290	23000	3100	6400		
Pyrene	2000	3800	620	54000	7400	15000		
Polycyclic Aromatic Hydrocarbons (PAH) - Individual Compound Assessment								
Naphthalene	85	85	200	8400	17000	1900	432	
Acenaphthylene	920	6000	160	100000	15000	30000	506	
Acenaphthene	1100	6000	200	100000	15000	30000	336	
Fluorene	860	4500	160	71000	9900	20000	183	
Phenanthrene	440	1500	90	23000	3100	6300		
Anthracene	11000	37000	2200	540000	74000	150000		
Fluoranthene	890	1600	290	23000	3100	6400		
Pyrene	2000	3800	620	54000	7400	15000		
Benzo(a)anthracene	13	15	13	180	29	62		
Chrysene	27	32	19	350	57	120		
Benzo(b)fluoranthene	3.7	4	3.9	45	7.2	16		
Benzo(k)fluoranthene	100	110	130	1200	190	440		
Benzo(a)pyrene (only)	3	3.2	3.5	36	5.7	13		
Indeno(123cd)pyrene	41	46	39	510	82	180		
Dibenzo(ah)anthracene	0.3	0.32	0.43	3.6	0.58	1.4		
Benzo(ghi)perylene	350	360	640	4000	640	1600		
Chlorinated Aliphatic Hydrocarbons								
Chloroethene (Vinyl chloride)	0.017	0.029	0.0058	2.2	7.8	19		
1,1-Dichloroethene (DCE)	0.82	0.82	12	92			7940	
Cis 1,2, Dichloroethene (DCE)	1.5	1.6	3.6	120	3900	3100	12900	
Trans 1,2, Dichloroethene (DCE)	3.3	3.4	16	260	13000	9100	12600	
Trichloroethene (TCE)	0.043	0.045	0.16	3.4	79	69		
Tetrachlorethene (PCE)	1.6	1.6	11	130	3400	2500		
1,1,1,2 Tetrachlorethane	6.4	8.2	4.4	560	1400	2100		
1,1,1 Trichlorethane	39	40	240	3000	140000	100000		6392
1,2-Dichloroethane (Ethylene Dichloride)	0.31	0.41	0.19	29	310	380		
Tetrachloromethane	0.13	0.13	2.4	14	950	400		
Trichloromethane	3.4	4.2	1.7	350	2500	3100		
PFAS								
Perfluorooctanoic Acid (PFOA)	0.0076	0.041	0.0014	0.6	0.079	0.17		
Perfluorononanoic Acid (PFNA)	0.013	0.041	0.0027	0.6	0.079	0.17		
Perfluorohexane Sulfonic Acid (PFHxS)	0.0081	0.041	0.0015	0.6	0.079	0.17		
Perfluorooctane Sulfonic Acid (PFOS)	0.0073	0.041	0.0013	0.6	0.079	0.17		

Notes

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1) All Values are in mg/kg, reported to 2 significant figures.
2) Numbers in bold are C4SLs, Numbers in italics are S4ULs, Numbers underlined are EIC/AGS/CL:AIRE GACs, Numbers in red are SoBRA Acute Generic Assessment Criteria.
3) Assumptions and key notes made when deriving the Generic Assessment Criteria are contained within the relevant guidance documents, references:
   a) Contaminated Land: Applications in Real Environments (2014) SP1010 - Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination, Final Project Report (Revision 2b)
   b) Land Quality Management Ltd. (2015) The LQM/CIEH S4ULs for Human Health Risk Assessment.
   c) CL:AIRE, EIC, AGS (2010) Soil Generic Assessment Criteria for Human Health Risk Assessment.
   d) Society of Brownfield Risk Assessment (2020) Development of Acute Generic Assessment Criteria for Assessing Risks to Human Health from Contaminants in Soil.
   e) Environment Agency (2009) Human Health Toxicological Assessment of Contaminants in Soil, Science Report - SC050021/SR2.
4) Generic Assessment Criteria listed in the following order of preference: C4SLs, S4ULs, CL:AIRE/AGS/EIC Generic Assessment Criteria, Other relevant Generic Assessment Criteria where GACS associated with the prioritised GACs are not available as outlined further in Curtins Rationale and Hierarchy notes.
5) To use Benzo(a)pyrene as a surrogate marker for PAH contamination, the assumptions set out in the relevant C4SL documentation must be met. A C4SL PAH surrogate marker checklist is appended.
6) Naphthalene is a volatile PAH. The C4SL values are derived on the basis of chronic exposure and risks to human health, and do not explicitly account for acute risks (e.g. a one off ingestion of a significant amount of soil by a young child) where the inhalation pathway is the main risk driver. Further consideration of the acute risk may be required in external settings (POS_{park} and POS_{resi}) where the GAC is substantially greater than the residential equivalent, to account for the possibility of acute exposure to the ingestion of naphthalene. The theoretical solubility saturation limit of naphthalene in soil is substantially lower than the GAC value, and therefore it is likely that free phase contamination would be present where the GAC is exceeded. In such a situation, it is unlikely that the product would remain in-situ untreated, and consideration of remediation / mitigation methods would be required.
7) Where the C4SL surrogate marker checklist indicates the PAH ratios are not suitable, individual PAH compounds must be assessed individually against the relevant contaminant specific assessment criteria.
8) Risk associated with additive effects of TPH contamination needs to be assessed in addition to the individual bandings, using the following equation:

$$HI = \sum HQ\ Fi = \sum \frac{Measured\ Concentration,\ Fi\ (mg/kg)}{Relevant\ GAC\ (mg/kg)} Fi$$

   Where: ***HI*** *= Hazard Index* ***HQ*** *= Hazard Quotient* ***Fi*** *= Fraction index*

   Where the HI > 1, there may be a risk to human health.
9) Exposure to all xylene isomers to be considered together. Values detailed in this table are the lowest (most conservative) of o-, m- and p- xylene isomers.
10) PFAS assessment also uses a hazard index approach to ensure the total exposure from all four PFAS compounds combined does not exceed the $LLTC_{oral}$. Where the hazard index exceeds 1, further consideration or assessment of the risk is required, even where none of the individual C4SL values are exceeded.
11) PFAS C4SL values are interim. The C4SL has been derived using the sum of the four PFAS compounds as the basis of the low level of toxicological concern. The term interim reflects concerns raised by the Committee on Toxicity (COT) and the fact that further work by the COT and others may results in the need for the LLTC to be updated.
12) Generic Assessment Criteria assume no free phase contamination is present. Where free phase contamination is present, further assessment may be required.
13) Solubility Saturation Limit and Vapour Saturation Limit are provided in accordance with relevant guidance documents. Where these values are exceeded, and the vapour pathway is an important contributing pathway to exposure, then the following should be considered:
   - Free phase contamination may be present
   - Exposure from vapour pathways will be over predicted.
   - Where the vapour pathway is >90% of exposure then it is unlikely that the relevant HCV will be exceeded at soul concentrations at least a factor of ten higher than the relevant HCV.

   Additional assessment should be undertaken where this is the case, with consideration that:
   - Exposure is unlikely to reach the relevant HCV and the risk based on the assumed conceptual model is likely to be negligible.
   - Vapour pathway exposure should be calculated using algorithms suitable for free phase or NAPL sources
   - Screening could be considered using the lower saturation limit, which is the approach adopted by the USEPA. However, this may not be practical in many cases because of very low limits and is in any case highly conservative.

   Where the vapour pathway is the only exposure pathway considered then effective assessment criteria should be derived manually in accordance with guidance outlined in CLEA Science Report SC050021/SR4
14) The C4SL for inorganic mercury considers chronic exposure risk only. Further assessment of acute risks may be required. Refer to guidance provided in SoBRA (2020) Development of Acute Generic Assessment Criteria for Assessing Risks to Human Health from Contaminants in Soil.

Appendix E – Laboratory Soil Results

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Hattersley Science & Technology Park
Stockport Road, Hattersley, SK14 3QU

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 26/00376
Issue Number: 1 **Date:** 21 January, 2026

Client:
Curtins Consulting (Manchester)
Merchant Exchange
17-19 Whitworth Street
Manchester
UK
M1 5WG

Project Manager: EBMA/Jonathan Lord/Rebecca Baksh-Jones
Project Name: Embassy Village
Project Ref: B077442
Order No: 29327
Date Samples Received: 14/01/26
Date Instructions Received: 15/01/26
Date Analysis Completed: 21/01/26

Approved by:

[redacted]

Zipporah Bannister
Client Manager

Envirolab Job Number: 26/00376

Client Project Name: Embassy Village

Client Project Ref: B077442

Lab Sample ID	26/00376/1	26/00376/2	26/00376/3	26/00376/4	26/00376/5	26/00376/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TS01	TS02	TS03	TS04	TS05	TS06				
Depth to Top	0.05	0.05	0.05	0.05	0.05	0.05				
Depth To Bottom	0.10	0.10	0.10	0.10	0.10	0.10				
Date Sampled	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26				
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES				
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE	4AE				
% Moisture at <40C$_A$	20.9	15.6	16.0	21.2	21.2	19.6		% w/w	0.1	A-T-044
% Stones >10mm$_A$	1.4	<0.1	2.5	1.1	<0.1	<0.1		% w/w	0.1	A-T-044
pH$_D$[M#]	7.12	6.09	6.37	6.91	6.68	7.22		pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$[M#]	0.11	0.02	0.04	0.07	0.25	0.02		g/l	0.01	A-T-026s
Cyanide (total)$_A$[M#]	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		mg/kg	0.2	A-T-050s
Organic Matter$_D$[M#]	8.89	4.75	5.43	8.54	7.14	7.35		% w/w	0.14	A-T-032s
Arsenic$_D$[M#]	7	8	8	8	8	8		mg/kg	1	A-T-024s
Boron (water soluble)$_D$[M#]	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		mg/kg	1	A-T-027s
Cadmium$_D$	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		mg/kg	1	A-T-024s
Copper$_D$[M#]	34	37	37	31	31	32		mg/kg	1	A-T-024s
Chromium$_D$[M#]	11	13	13	11	11	10		mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-040s
Lead$_D$[M#]	72	70	69	63	65	68		mg/kg	1	A-T-024s
Mercury$_D$	0.24	<0.17	<0.17	0.21	0.18	0.23		mg/kg	0.17	A-T-024s
Nickel$_D$[M#]	11	10	11	11	11	10		mg/kg	1	A-T-024s
Selenium$_D$[M#]	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Zinc$_D$[M#]	55	66	89	49	50	52		mg/kg	1	A-T-024s

Envirolab Job Number: 26/00376

Client Project Name: Embassy Village

Client Project Ref: B077442

Lab Sample ID	26/00376/1	26/00376/2	26/00376/3	26/00376/4	26/00376/5	26/00376/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TS01	TS02	TS03	TS04	TS05	TS06				
Depth to Top	0.05	0.05	0.05	0.05	0.05	0.05				
Depth To Bottom	0.10	0.10	0.10	0.10	0.10	0.10				
Date Sampled	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26				
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES				
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE	4AE				
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_D^{\#}$	NAD	NAD	NAD	NAD	NAD	NAD				A-T-045
Asbestos Matrix (visual)$_D$	-	-	-	-	-	-				A-T-045
Asbestos Matrix (microscope)$_D$	-	-	-	-	-	-				A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_D$	N/A	N/A	N/A	N/A	N/A	N/A				A-T-045

Envirolab Job Number: 26/00376

Client Project Name: Embassy Village

Client Project Ref: B077442

Lab Sample ID	26/00376/1	26/00376/2	26/00376/3	26/00376/4	26/00376/5	26/00376/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TS01	TS02	TS03	TS04	TS05	TS06				
Depth to Top	0.05	0.05	0.05	0.05	0.05	0.05				
Depth To Bottom	0.10	0.10	0.10	0.10	0.10	0.10				
Date Sampled	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26				
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES				
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE	4AE				
PAH-16MS										
Acenaphthene$_A^{M\#}$	0.07	0.02	0.21	0.05	0.04	0.07		mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	0.07	0.04	0.53	0.06	0.05	0.10		mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	0.36	0.21	0.96	0.39	0.36	0.45		mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	0.32	0.20	0.64	0.41	0.41	0.51		mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	0.37	0.23	0.68	0.44	0.47	0.53		mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.20	0.13	0.26	0.25	0.24	0.29		mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	0.15	0.08	0.28	0.14	0.16	0.19		mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	0.41	0.24	0.93	0.44	0.42	0.55		mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	<0.04	0.07	<0.04	0.05	<0.04		mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	0.66	0.37	2.68	0.74	0.62	0.86		mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	0.05	0.01	0.19	0.04	0.03	0.06		mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	0.22	0.14	0.31	0.28	0.27	0.31		mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	<0.03	<0.03	<0.03	0.09		mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.47	0.17	2.61	0.40	0.27	0.57		mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	0.65	0.36	2.14	0.72	0.61	0.85		mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	4.00	2.20	12.5	4.36	4.00	5.43		mg/kg	0.01	A-T-019s

Envirolab Job Number: 26/00376

Client Project Name: Embassy Village

Client Project Ref: B077442

Lab Sample ID	26/00376/1	26/00376/2	26/00376/3	26/00376/4	26/00376/5	26/00376/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TS01	TS02	TS03	TS04	TS05	TS06				
Depth to Top	0.05	0.05	0.05	0.05	0.05	0.05				
Depth To Bottom	0.10	0.10	0.10	0.10	0.10	0.10				
Date Sampled	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26	13-Jan-26				
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES				
Sample Matrix Code	4AE	4AE	4AE	4AE	4AE	4AE				
TPH CWG with Clean Up										
Ali >C5-C6$_A$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C6-C8$_A$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	<1	1	1	1	1		mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	11	9	9	18	19	17		mg/kg	1	A-T-055s
Total Aliphatics$_A$	11	9	10	19	20	19		mg/kg	1	Calc-As Recd
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	0.02	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C12-C16$_A$	1	<1	2	1	1	4		mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	5	2	8	5	6	21		mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	25	14	28	26	28	52		mg/kg	1	A-T-055s
Total Aromatics$_A$	31	17	38	33	36	77		mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35)$_A$	42	26	49	51	56	96		mg/kg	1	Calc-As Recd
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	0.02	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s

Report Notes

General

•This report shall not be reproduced, except in full, without written approval from Envirolab.
•The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client and can affect the validity of results.
•The results reported herein relate only to the material supplied to the laboratory.
•The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **four weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
•Analytical results reflect the quality of the sample at the time of analysis only.
•Opinions and Interpretations expressed are outside our scope of accreditation.
•A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
•If a sample is outside of the calibration range or affected by interferences then it may need diluting. This will result in the limit of detection (LOD) being raised.
•Subcontracted Analysis: Please see the appended report for any deviations, current LODs and accreditation status of the test.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "D" on Asbestos	Analysis performed on a dried aliquot of sample provided.
Subscript "^"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
Trace	Asbestos found not suitable for Gravimetric Quantification – not enough to accurately weigh.
N/A	Not applicable

Asbestos

Identification: Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis
"Trace Asbestos Identified" will be reported if there is not enough present to verify the type.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

Soil Chemical Analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH by method A-T-007:
For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:
Results greater than 12900µS/cm @ 25^0C / 11550µS/cm @ 20^0C fall outside the calibration range and as such are unaccredited.

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Curtins Consulting (Manchester), Merchant Exchange, 17-19 Whitworth Street , Manchester, UK, M1 5WG

Project: Embassy Village

Clients Project No: B077442

Project No: 26/00376

Date Received: 15/01/2026 (am)

Cool Box Temperatures (°C): 5.6

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	26/00376/1	26/00376/2	26/00376/3	26/00376/4	26/00376/5	26/00376/6
Client Sample No						
Client Sample ID/Depth	TS01 0.05-0.10m	TS02 0.05-0.10m	TS03 0.05-0.10m	TS04 0.05-0.10m	TS05 0.05-0.10m	TS06 0.05-0.10m
Date Sampled	13/01/26	13/01/26	13/01/26	13/01/26	13/01/26	13/01/26
A-T-019s	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026
A-T-022s	16/01/2026	16/01/2026	16/01/2026	16/01/2026	16/01/2026	16/01/2026
A-T-024s	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026
A-T-026s	20/01/2026	20/01/2026	20/01/2026	20/01/2026	20/01/2026	20/01/2026
A-T-027s	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026
A-T-031s	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026
A-T-032s	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026
A-T-040s	20/01/2026	20/01/2026	20/01/2026	20/01/2026	20/01/2026	20/01/2026
A-T-042sTCN	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026
A-T-044	20/01/2026	20/01/2026	20/01/2026	20/01/2026	20/01/2026	20/01/2026
A-T-045	16/01/2026	16/01/2026	16/01/2026	16/01/2026	16/01/2026	16/01/2026
A-T-050s	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026	21/01/2026
A-T-055s	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026
Calc-As Recd	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

Appendix F – Unexpected Contamination

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Curtins

Our Ref: 077442-CUR-XX-XX-T-GE-00004 P01

21/01/2025

Luke Kemel
Design Manager
Vermont
1 Sefton Street
Liverpool
L8 5TH

Dear Luke,

RE: Unexpected Contamination at Embassy Village

Introduction

Following the recent discovery of unexpected (asbestos) contamination, encountered as part of enabling works at the Embassy project, we write to summarise the contamination discovered, actions taken and outline the residual risk.

We recommend that this letter is submitted to the Manchester City Council's Contaminated Land Officer to make them aware of this occurrence, in accordance with recommendations of Curtins Remediation Strategy (Ref. 077442-CUR-00-XX-RP-GE-003-P01).

Unexpected Contamination Discovery

On the 20th of August 2024, Curtins received notice off Vermont that Asbestos Containing Materials were identified on the Embassy Village site located off Egerton Street, Manchester, M15 4NU, on the 7th of August 2024. We understand that the asbestos was initially encountered in an area of the site alongside the wall to the River Medlock at the ground surface within the overgrown vegetation, determined as likely representing historically fly tipped waste.

We understand that whilst clearing the vegetation this ACM had unknowingly been excavated and moved to various small stockpiles and in isolated locations at the ground surface. Rhodar, the Remediation Contractors on site, have provided a plan showing the asbestos affected areas, included as an enclosure. Samples of these materials were collected by Rhodar, and it was confirmed through laboratory analysis to comprise asbestos cement, asbestos insulation board, and degraded asbestos paper/board products (results appended).

The asbestos identified by Rhodar, initially found alongside the river wall (in an area not specifically investigated during the ground investigation due to access) was not consistent with the low concentrations of ACM debris identified within the Curtins Phase 2 Intrusive Ground Investigation Report undertaken in 2022 (Ref. 077442-CUR-00-XX-RP-GE-002-P01); 1 No. soil sample returned a positive result for Loose Fibres of Amosite at a quantification of <0.001% within soils at 0.20m bgl and whilst another hole location was terminated due to encountering suspected asbestos containing cement.

Following the advice contained within Curtins Remediation Strategy issued in April 2024, Rhodar observed the Unexpected Contamination Strategy upon discovery of the ACMs and developed a Strategy for removal, alongside preparing a risk assessment and plan of works, included as an enclosure. All operatives were understood to have been removed from the site and the boundary secured pending results of sample testing.

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Curtins Consulting Ltd registered in England No. 2054159
Registered office: 51-55 Tithebarn Street, Liverpool, L2 2SB
Branch registered in Ireland No. 908625

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Manchester
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manchester@curtins.com
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On receipt of testing results the Rhodar Asbestos Remediation Division attended site in order to handpick larger asbestos pieces and conduct a scrape of the top layer of affected soil, which was appropriately removed from site as hazardous waste with Waste Consignment Notes (appended). Socotec asbestos consultants provided a 'minor works certificate' (appended) as a record of the visual inspection of the areas of works following completion. No visible ACM debris was found at the time of the inspection.

Further investigation, in the form of machine excavated trial pits were subsequently carried out as further detailed below.

Curtins Supervision

Curtins visited site on the 15th and 16th of October 2024 to witness Trial Pits being undertaken by Rhodar, which were intended to provide assurance and evidence that any ACMs are localised to the site surface and are not a more widespread issue in the subsurface at depths that could be disturbed by construction excavations.

9 No. Trial Pits were undertaken, 1 No. under each archway to approximately 1.50m bgl as summarised in the location plan drawing, and photographic log appended. Trial Pits were excavated by Rhodar Licensed Asbestos Contractors, with arisings screened by Rhodar and relayed to the Curtins Engineer on site. No visible ACMs were encountered beneath the ground surface in the 9 No. Trial Pit locations. Two isolated small pieces of possible ACM were identified on site by Rhodar on the site surface beneath Archway No. 8 adjacent to the retaining wall separating site from the River. These pieces were earmarked for appropriate removal, within the large Asbestos Waste enclosed skip present on site.

Concrete and brick hardstanding surfaces beneath the arches were being lifted and removed to prepare the site for construction and to confirm that no visible ACMs were present beneath the ground surface. For further assurance Curtins and Rhodar's engineers witnessed this exercise beneath Archways No. 5 and No. 6, with no visible ACM identified directly beneath the hardstanding.

Rhodar's site records have been provided to Curtins as evidence that appropriate measures were taken following the Remediation Strategy, and that any ACMs identified were appropriately collected, removed and disposed off-site. This evidence has been appended to this letter.

Associated Potential Contaminant Linkages and Remedial Recommendations

Although unexpected (fly tipped) asbestos has been removed from the site it's likely that the remaining site soils will contain low levels of asbestos containing materials debris as identified in Curtins Phase 2 and Remediation Strategy reports.

Curtins Remediation Strategy identified potential contaminant linkages associated with Made Ground soils containing asbestos fibres and possible ACMs presenting a risk to Construction Workers, Residents and Passers-by and End Users through direct contact, soil and dust ingestion and inhalation. It's considered that these potential contaminant linkages still remain and therefore the Remediation recommendations must still be adopted.

These recommendations broadly include suitable asbestos management measures for the site, in accordance with an asbestos management plan and provision of a suitable thickness of clean cover in all areas of soft landscaping on site. For further detail Curtins Remediation Strategy should be consulted.

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Curtins

Closure

If you require any further information, please do not hesitate to contact us.

Yours faithfully,

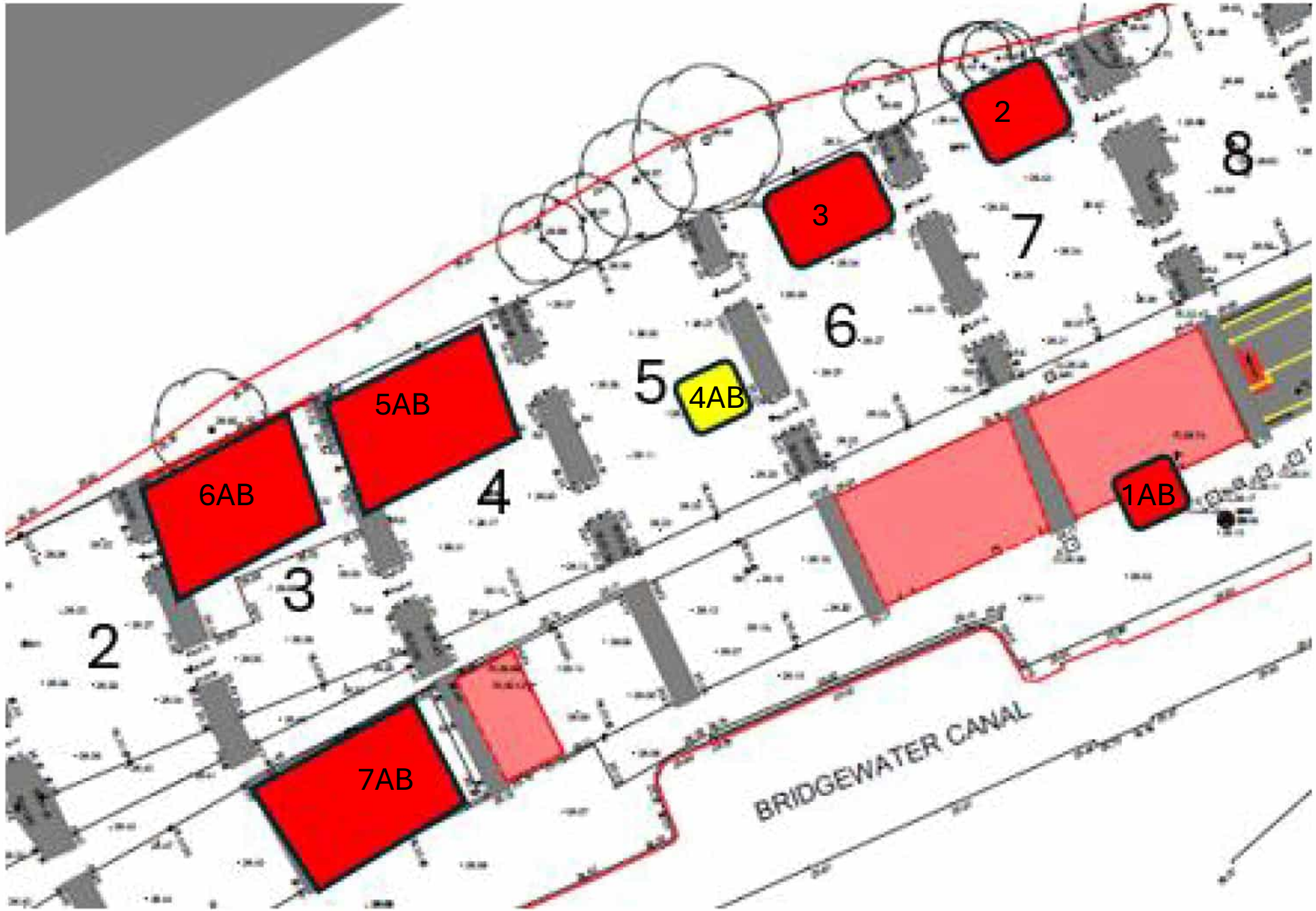
Lucy Woods BSc (Hons) MSc GradCIWEM
Geo-Environmental Engineer

For and on behalf of
Curtins Consulting Ltd

Enclosures
Rhodar Plan Showing ACM Locations
Rhodar Asbestos Sampling & Analysis Results
Rhodar Risk Assessment and Plan of Work-For Work With Asbestos
Socotec Minor Works Certificate
Waste Consignment Notes
Curtins Trial Pit Plan & Photographic Record

Curtins Consulting Ltd registered in England No. 2054159
Registered office: 51-55 Tithebarn Street, Liverpool, L2 2SB
Branch registered in Ireland No. 908625


Piles of waste here confirmed to contain asbestos
Suspected ACM's found here in waste piles awaiting test results
Suspected ACM's found here in waste piles brought over from area 4 unknowingly when clearing rubble from waste piles
Suspected ACM's found that were tracked here by the excavator that was previously working on a waste pile
1
2
3
4
5
6
7
8
9
10
BRIDGEWATER CANAL


2
3
8
7
6
5
4AB
5AB
4
6AB
1AB
2
3
7AB
BRIDGEWATER CANAL

Sample No.	Sample Location	Sample Description	Product Type	Results	Comments
BS245031	1A	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245032	1B	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245033	2	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245034	3	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245035	4A	Thermal Insulation	Asbestos Cement	Chrysotile	
BS245036	4B	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245037	5A	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245038	5B	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245039	6A	Thermal Insulation	Asbestos Insulating Board	Chrysotile	

Pile 4 identified as also containing some AIB and AC approx. 2 tonne of rubble to be removed



Inspectas Compliance Ltd
Atlas House
5 Bradford Road
Drighlington
Bradford
BD11 1AS

Tel: 0844 264 0094
Email: info@inspectas.co.uk
Web: www.inspectas.co.uk
Company Reg No. 8668845

8401

BULK SAMPLE CERTIFICATE FOR IDENTIFICATION OF ASBESTOS FIBRE

Site Address: Embassy Village M3 4JU	**Client Name:** Rhodar Industrial Services Ltd Lexia House Lyncastle Way Appleton Warrington WA4 4ST

Sampled By	Rhodar Industrial Services Ltd	**Date Sample Received**	06/09/2024	**Date Sample Analysed**	09/09/2024	**Date Approved**	09/09/2024

RESULTS

Sample No.	Sample Location	Sample Description	Product Type	Results	Comments
BS245031	1A	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245032	1B	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245033	2	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245034	3	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245035	4A	Thermal Insulation	Asbestos Cement	Chrysotile	
BS245036	4B	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245037	5A	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245038	5B	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245039	6A	Thermal Insulation	Asbestos Insulating Board	Chrysotile	

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Email: info@inspectas.co.uk
Web: www.inspectas.co.uk
Company Reg No. 8668845

8401

RESULTS

Sample No.	Sample Location	Sample Description	Product Type	Results	Comments
BS245040	6B	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245041	7A	Thermal Insulation	Asbestos Insulating Board	Chrysotile	
BS245042	7B	Thermal Insulation	Asbestos Insulating Board	Chrysotile	

Analyst Name	Analyst Signature	Approved by	Approver Signature
Sarah Hollingdrake	[redacted]	Sarah Hollingdrake	[redacted]

DISCLAIMERS:

Samples have been analysed to determine the presence of asbestos fibres using Inspectas Compliance Ltd in-house method of polarised light microscopy coupled with dispersion staining techniques based on the HSG 248.

Notes:

I. The material type recorded is the opinion of the sampler primarily and does not form part of Inspectas' UKAS Accreditation.
II. This Certificate of Identification of asbestos fibre(s) cannot be reproduced in full unless written approval from Inspectas Compliance Ltd has been obtained.
III. The above results only relate to the items tested.
IV. Where the sample size is deemed unacceptable or unsatisfactory by the analyst, the client will be notified.
V. Inspectas Compliance Ltd will not accept liability for the way the results are interpreted or acted upon.
VI. If under polarised light microscopy only 1 or 2 fibres are seen and identified as asbestos, the term 'trace asbestos identified' may be used.
VII. Inspectas Compliance Ltd are not responsible for sampling techniques or accuracy of information supplied for samples carried out by individuals not employed by Inspectas
VIII. Inspectas Compliance Ltd will retain bulk samples for a minimum of 6 months. Electronic certificates are retained on our system indefinitely.

Key:

CHRYSOTILE = "White Asbestos", AMOSITE (Grunerite) = "Brown Asbestos", CROCIDOLITE = "Blue Asbestos" FIBROUS ANTHOPHYLLITE, FIBROUS TREMOLITE, FIBROUS ACTINOLITE (Rare Asbestos types), NADIS (No Asbestos Detected)

RHODAR
Specialist Enabling Works
ASBESTOS | DEMOLITION | REMEDIATION

Construction Phase Plan, Risk Assessment and Plan of Work - for work with Asbestos



Project

Job Number	ENTH05543
Job Name	Embassy Village
Site Address	Egerton St, Manchester, Greater Manchester, M15 4NU
Location	Soils
What3Words	///choice.laptop.wallet

Client

Name	Embassy (Charity Number 1174728)
Address	The Message Trust, Lancaster House, Harper Road, Sharston Industrial Area, Manchester, M22 44G
Contact	Sid Williams
Email	sid@embassyvillage.co.uk
Telephone	07939909640

Rhodar

Contracts Manager	Donavan Slee
Position	Project Manager
Telephone	07714 916170
Email	d.slee@rhodar.co.uk
Address	Lexia House, Lyncastle Way, Barleycastle Trading Estate, Appleton, Warrington, WA4 4ST

Revision

Date RAMS created	27/09/2024
RAMS Version Number	-0.1
Internal PRL	1

v1.1.27

Contents

Section 1	Revisions to Plan of Work
Section 2	Scope of Works
Section 3	Overview Site Plan
Section 4	Project & Management Details
Section 5	Managers Details & Declaration
Section 6	Verification of Works
Section 7	Asbestos Survey & Air Monitoring Details
Section 8	Site Specific & Site Establishment Information
Section 9	Waste Procedures
Section 10	Emergency Procedures
Section 11	COSHH & Operational Guidance
Section 12	Enclosure/Non-enclosure Specifics
Section 13	Plan of Work
Section 14	Photographs
Section 15	Risk Scoring Matrix
Section 16	Risk Assessments
Appendix A	Manual Handling
Appendix B	Hand Arm Vibration / Noise

A copy of the Operational Guidance (H&S) relating to this plan of works is available at our Head Office or on any current site and can be produced upon request.

ALL PERSONNEL MUST SIGN THE CONFIRMATION RECORD RELATING TO THIS DOCUMENT BEFORE STARTING WORKS

Section 1: Revisions to submitted plan of work

The site supervisor is authorised to make only limited alterations to/or deviations from this plan of work in agreement with Head Office prior to the changes being made. Some changes may require further review of the risk assessment which accompanies this plan of work. Such changes will be completed by the Contract Managers with a revised POW sent to site.

A record of any alterations or deviations made by the Site Supervisor must be made on the POW and returned to the office upon job completion.

Any changes to the Plan of Work will be communicated via a method statement re-briefing, signatures and details will be recorded below.
For fuller details please refer to applicable IMS 25.

0.0

Date	Revision No	Revision	Risk Assessment Review required	Revision authorised by	RAM's amended by

Work Area

Work Area ID	AIBSOILS	Location of Work	Contaminated Soils

Work Area Phasing

Pre-clean & Set Up	1 Day	Removal Works	2 Days	Visual Inspections	N/A
De-sheeting	N/A	Enclosure	Yes		

Details

Removal of soils and disposed of as hazardous waste, Rhodar demoilition will provide 12ton excavators and dumper to move and load 8 wheel tippers.

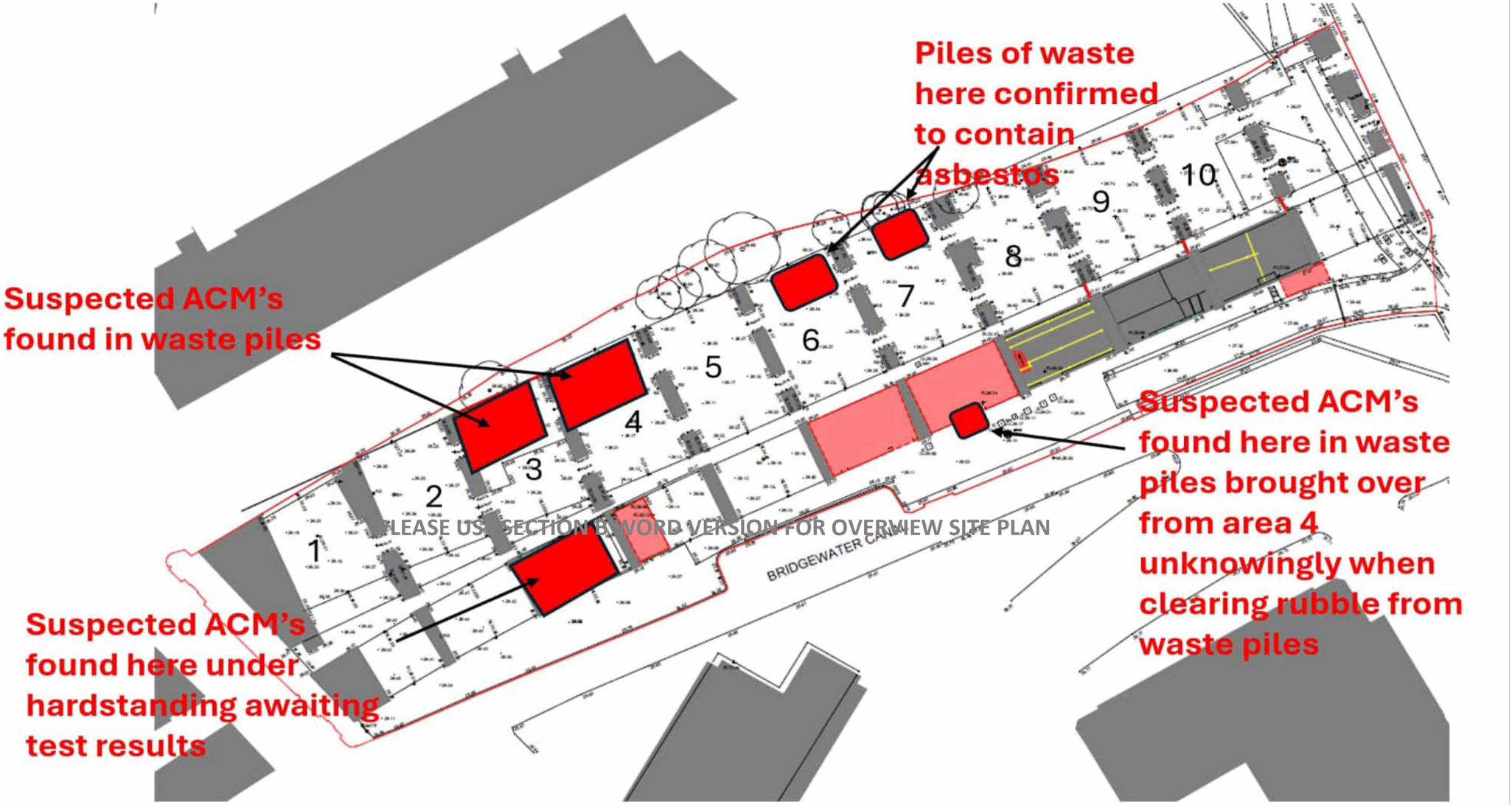
A designated route will be identified for the 8 wheeler tippers to drive into site loaded and then drive off the site without the need for a wheel wash.

Machines used to move soils will be cleaned down in a respirator zone following works including the bucket and tracks, these will be placed onto polythene following movement and cleaned ensuring all debris are clear.

All polythene/visqueen following works will be disposed of as asbestos waste

It has been identified that there is 70ton of contaminated soils to be removed.

Rhodar asbestos teams will remove all obstrutive materials prior to movement, these will be wrapped in polythene and disposed of as asbestos waste.



SITE SPECIFIC RULES

Smoking **ONLY** permitted within specific smoking shelters. No smoking authorised anywhere else onsite

- Personal radios are not allowed on site.
- Mobile phones and Smart watches are NOT allowed within the work area and must be left in the site welfare.
- Operatives are to wear: Hard hats, **ORANGE** high visibility tabards, Chemical resistant steel toe capped boots and gloves at all times on site.

SITE SECURITY

- ✓ Access to the site is via lovels Way, operatives to complete induction within the site offices
- ✓ Rhodar Management have specific sign in procedure at site office
- ✓ All Traffic on to site will be directed to the work area by Rhodar team, a supervisor will be in position at all times during movement of machines and wagons

4.0 - Project & Management Details

Project Timings

4 Maximum number of employees engaged on the project at any one time

2 Minimum number of employees engaged on the project at any one time

Start Date	End Date	Operating Hours	Shift Pattern
07/10/2024	11/10/2024	07:30-16:30	Monday - Friday

Days	Nights	Weekdays	Weekends
Yes	No	Yes	No

Project: CDM Notifiable

No

Enforcing Authority

HSE

Project Contact List

RHODAR CONTACT	CONTACT TYPE	NAME	EMAIL ADDRESS	COMPANY	CONTACT NUMBER
Yes	Supervisor	Thomas Moss	t.moss@rhodar.co.uk	Rhodar	07920 493033
Yes	Project Manager	Donavan Slee	d.slee@rhodar.co.uk	Rhodar	07714 916170
Yes	HSEQ Manager	Julie Sefton	j.sefton@rhodar.co.uk	Rhodar	07764 984608
No	Contracts Manager	Shaun Stephenson	s.stephenson@rhodar.co.uk	Rhodar (Demolition)	(0)7770461261

Sub-Contractor

INDUSTRY	CONTACT TYPE	NAME	EMAIL ADDRESS	COMPANY	CONTACT NUMBER
N/A	N/A	N/A	N/A	N/A	N/A

5.0 - Management Details

Site Supervisor / Site Manager Attendances

The site manager or supervisor will be present on site throughout the works.

Contracts Manager Attendances

The Contracts Manager shall brief the supervisor prior to the works commencing and will maintain regular communication with the site supervisor throughout the works.

CONTRACT MANAGER ATTENDANCE	OTHER
Contracts Manager to attend site on commencement of works	

Auditing

In house or independent auditors may visit site to carry out unannounced audits, this is in line with the company policy IMS 04.

Site Supervisory staff must ensure that all operatives involved in the works have read or have had read to them the Plan of Work. Each Operative will then indicate that they fully understand the Plan of Work by signing it. Each time a new operative starts work on the site they must be fully inducted into the method of work and sign the appropriate verification.

Contracts Managers and Directors may carry out random audits and Senior Leadership Visits during the works.

Managers Declarations

I confirm that I have planned and written the Risk Assessment and Plan of Work for these asbestos works in accordance with the Rhodar Asbestos Abatement Policy and the requirements of CAR 2012 and supporting health and safety legislation.

Note: This document is not valid unless it has a secondary authorisation signature (electronic), and third and a site release authorisation signature (in ink) in accordance with the Group Asbestos abatement policy.

[redacted]

Contracts Manager	Secondary Signature	Site Release Authorisation
Name	Name	Name
Donavan Slee	Chris Foy	
Date	Date	Date
23/09/2024	27/09/2024	

Declaration

I have read or had have explained to me the risk assessment and Plan of Work for this job, in conjunction with all relevant OGs and SAFEguard. The supervisor has conducted all relevant tool box talks.

I fully understand the plan of work, what I have been asked to do, and I agree to work to all company procedures and SAFEguard rules. I sign below to acknowledge this.

NAME	SIGNATURE	DATE

7.1 Survey

Details

Company
Inspectas

Survey Type
Bulk Sampling

Survey Reference Number
J030749/1

Survey Date
09/09/2024

Available On Site?
Yes

7.2 UKAS Laboratory and Air Monitoring

Company

Name of Company
OHS

Contracted To
Client

Types of Air Monitoring to be carried out

Air Monitoring to be undertaken on this project include:
Near Source reassurance
Personal Monitoring

Attendance

EMPLOYMENT CONTRACT
Full time

Personal Monitoring to be conducted

The company has a personal monitoring strategy which aims to carry out sampling on a variety of projects involving all types of asbestos removal/remediation projects. It is a mandatory requirement that personal monitoring is undertaken on all ACM projects during the removal phases and when there is the presence of an on-site analyst for any longer running projects. Every effort should be made to carry out personal monitoring when asbestos removal/remediation works are taking place. If the analytical company is not appointed by Rhodar, it is to be agreed as part of the planning stage and documented to ensure personal sampling is undertaken.

The supervisor is to request that the analyst undertakes personal sampling to the nominated operative or to themselves (e.g when entering the enclosure to undertake a pre-visual inspection). The analyst should be instructed to collect any samples at a flow rate of 1 litre per minute.

Only personal monitoring paperwork should be sent to Compliance@lexiasg.com - All other analytical paperwork must be sent to the Contract Manager for filing in the job folder.

The personal monitoring strategy and results will be documented on the attached IMS ASB 10.9 Compliance Personal Monitoring Form which will initially be completed by the Contract Manager to nominate the operatives and tasks requiring personal sampling and sent but as an appendix to these RAMS.

Site Access Arrangements

Access via Egerton Way - 8 Wheelers to follow traffic plan set out within the Demoltion RAMS and to be directed by the site supervisor

Site Induction Details

Client induction	

Site Induction Location & Timings

Location	Days	Time
Offices	Daily	08:00am

Welfare Set Up and Location

Welfare Location: Offices

Welfare Requirements No of Persons: **4**

Welfare Assessment Criteria

Suitable welfare facilities that are compliant with the requirements of the Construction (Design and Management) Regulations 2015 will be provided as detailed below taking into consideration number of persons and project duration.

No. of persons	No. of work periods (Day or Night)								
	1	2	3	4	5	6	1 week	2 wks	>2 wks
1	A	A	B	B	B	B	B	B	B
2	A	A	B	B	B	B	B	C	C
3	A	A	B	B	B	B	C	C	C
4	A	B	B	C	C	C	C	C	C
5	A	B	B	C	C	C	C	C	C
6	A	B	B	C	C	C	C	C	C
7	A	B	C	C	C	C	C	C	C
8	A	B	C	C	C	C	C	C	C
9	B	B	C	C	C	C	C	C	C
10	B	C	C	C	C	C	C	C	C
11+	C	C	C	C	C	C	C	C	C

Category A — Transient work site – arrange for suitable local facilities to be used (permissions to be obtained). These can be public or private facilities such as stations, depots, buildings, garages, shops etc.

Category B — Transient work site – arrange for suitable temporary facilities e.g. welfare vehicles. The overall travelling time to the toilet facility should be within 10 minutes of the place of work.

Category C — Non – transient / fixed work site – establish a site cabin with fixed welfare facilities, car parking, traffic management, site access control etc.

Note – dependent upon the circumstances if may be preferable to make formal arrangements for the use of local facilities than provide temporary site welfare facilities.

SITE WELFARE ASSESSMENT CATEGORY

Category B

Facility Provided By:	Client	Principle Contractor	Rhodar	Not Applicable
Office Facilities	✓			
Canteen	✓			
Chairs /Tables	✓			
Food Preparation Provision	✓			
Warm Drinks Facility	✓			
Heating	✓			
Potable Water	✓			
Changing Room / Drying Room	✓			
Secure Personal Storage	✓			
Mains Toilets	✓			
Portaloo with heated water				✓
Connection to Drainage				✓
Provision of Effluent Tanks				✓
Electrical Connections				✓
Water Connections				✓
Washing Facilities			✓	
Welfare Van				✓
Welfare DCU				✓
Groundhog Unit				✓

Site Personal Protective Equipment Requirements

General Purpose Gloves
Hard Hat
Rail Specification High Visibility Clothing
Safety Footwear
Safety Glasses

Site Security and Segregation Measures

Barrier Tape
Existing Site Fencing

Permit to Work

	Issued By
N/A	Client

Isolations

	Isolation By
N/A	

Confirmation of Isolations

Isolation	Detail	Name	Signature	Date
N/A				

9.0 - Waste Storage Disposal

Waste Storage

Waste Storage Location

All waste will be loaded directly into 8-Wheel Tipper Wagons and taken directly to land fill, each wagon to have its own specfic consignment note - Waste is to be directed by Rhodar Demolition and managed by demolition site manager

Waste Transfer & Carrier Details

Transfer Method

Landfill via designated Carrier

Waste Carrier

A1
Aquaforce

Waste will be transferred to:

Transfer Station	Address
Augean Thornhaugh	Old Leicester Rd, Wansford, Peterborough PE8 6NH
Waste Wave	Whites Farm, Wilton Ln, Warrington WA3 4BA

Additional details

All waste loaded directly into tipper wagons via 12ton machine and bucket

Estimated Waste Arisings

Waste Type	Container Size	Quantity (No.)	Weight (Kg)
Asbestos	tipper	4	70000

Waste to be Recycled

N/A

Non-Asbestos Waste Disposal

N/A

Non-Asbestos Waste Carrier Details

Waste Carrier

N/A

Fire & Emergency Safety Details

Follow site specific procedures and dial 999 in an emergency - recommended procedure by the fire service

Evacuation & Muster Points - delete as necessary

In the event of an emergency requiring site evacuation, the Site Supervisor/designated individual shall ensure that personnel shall proceed in a controlled manner to the nominated assembly point and shall immediately inform the emergency services, client designated control room as appropriate.
All Staff are to ensure that they are familiar with the exit routes to leave the work areas, enclosures & site compounds swiftly and safely in an emergency, and are aware of the nearest fire assembly points.
Obey any commands issued by Designated Fire Marshalls as they have been trained for such situations.
Do NOT re-enter the building until you have been told to do so.

Site Fire / Emergency Alarm

The buildings existing audible fire alarm with intermittent tone will remain in operation during the works

Muster Points

Contaminated muster point:	As per site plan
Non-contaminated muster point:	As per site plan

Fire Extinguisher & Fire Point Locations

Fire extinguishers & Fire Points located as per Main Contractor developed fire plan
Fire Blanket located in the kitchen / welfare areas

Water and Powder fire extinguisher to be placed outside the works location

Nearest Hospital & First Aid Details

Hospital Name Manchester Royal Infirmary

Address:

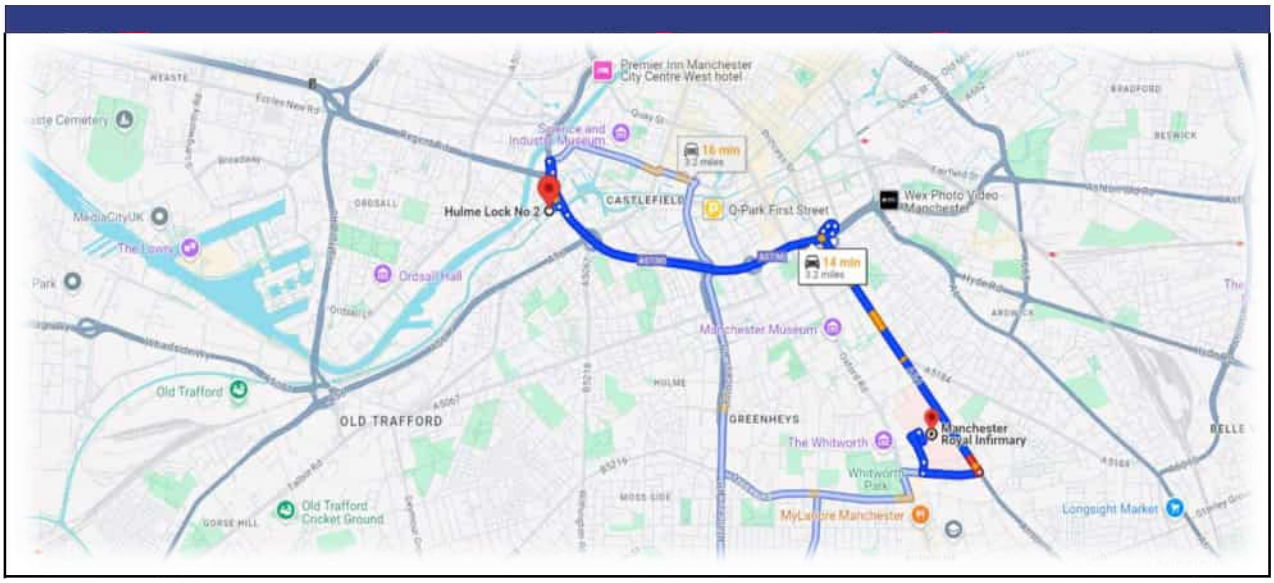
Oxford Rd, Manchester M13 9WL

Post code: M13 9WL

Distance From Site: 3.2Miles

Phone Number: (0)1612761234

Nearest A&E Location Plan



First Aid Arrangements

First Aiders:

Name	Location
Tom Moss	Outside Work Areas

First Aid Kit Locations:

Location	Details
Rhodar Vehicle	Full Site First Aid
Main Contractor Office	Full Site First Aid
Outside Air Lock / Work Area	Full Site First Aid

Additional Site Specific First Aid or Rescue Equipment:

Site Specific First Aid
N/A

COSHH

The following items will be utilised on site during the project

COSHH ASSESSMENT NUMBER	PRODUCT NAME	PPE	HAZARD
0002	Hand Sanitisers		
0003	Idenden Dampstrip 30/330		
0044	Duct Tape		
0046	Green D + Diesel		

Latest Operational Guidance V5 17.11.2023 IMS-ASB 10.1 Asbestos Operating Guidance

The following Operational Guidance are applicable to the project:

AA/01 - Documentation
AA/02 - Polythene Standards, Pre-cleaning, construction and testing of work area(s) /enclosures
AA/03 - Negative Pressure Units (NPU's) Vacuum Units, Hose Attachments & Ducting
AA/04 - Decontamination of equipment
AA/08 - Waste Disposal
AA/10 - Selection & Maintenance of Respiratory Protective Equipment (RPE).
AA/11 - Personal Protective Equipment (PPE)
AA/12 - Hygiene Facilities
AA/13 - Asbestos Emergency Procedures
IMS 04 - Internal Audits
IMS 05 - Employee Competence & Training
IMS 09 - Control of Waste
IMS 13 - Incident Reporting and Investigation
IMS 16 - Emergency Preparedness
IMS 17.1 - First Aid & Welfare
IMS 17.2 - Manual Handling
IMS 17.8 - Work involving Noise and Vibration
IMS 17.11 - When an Inspector Calls
IMS 20 - Control Of Substances Hazardous To Health (COSHH)
IMS 25 - Communication (General Communication, Site Briefing & Hand Over, Toolbox Talk Guidance and QuEnSH Bulletins)
IMS Policy - Alcohol & Drugs Policy
Safe Working Hours Policy - Hours of Work Policy

12.0 - Respirator Zone or Containment Area Specific Information & Design

Work area ID: AIB

Location: Throughout

Anticipated Exposure Levels

EXPOSURE | Add

AIB < 0.1 f/cc

Work Area Specific Personal and Respiratory Equipment

EQUIPMENT | Add

Selected RPE and Standard PPE to be worn by all staff at all times when working within the designated area

Is the site area works location contaminated? Yes

If yes, will pre-clean be required? Yes

White disposable Cat 3, Type 5/6 coveralls and P3 rated ori-nasel half mask

Hygiene Unit

The unit is to be set up and checked that it is fully operational prior to commencing any asbestos related works in accordance with OG AA/12.

There will be a hygiene unit assigned to these works as a precaution. Add

Personal Decontamination

PERSONAL DECONTAMINATION | Add

A decontamination zone shall be formed within the exclusion zone. This will be demarcated with red and white barrier tape, with correx laid to the floor and warning notices on display
A bucket/sponge and H-Type vac shall be sited within decontamination zone for decontamination purposes. This will include vacuuming dusts from overalls and wiping down half face respirators

Respirator Zone or Containment Area Set Up

The site shall be set-up as per drawing and following OG AA/02 where applicable

CONTAMINANT ZONE SETUP | Add

An exclusion zone will be set up around the work area using red and white barrier tape and warning notices visible to prevent unauthorised access

Respirator Zone or Containment Area Set Up

The site shall be set-up as per drawing and following OG AA/02 where applicable

CONTAMINANT ZONE SETUP | Add

An exclusion zone will be set up around the work area using red and white barrier tape and warning notices visible to prevent unauthorised access

Temporary Services

WATER	DETAILS
The water supply for the works will be taken from Rhodar installed temporary supplies	

Add

POWER	DETAILS
The power supply for the works will be taken from Rhodar installed temporary supplies	

Add

Work Area Specific Isolation Details

ISOLATION	DETAILS (IF OTHER)
N/A	

Add

Access Equipment

ACCESS EQUIPMENT	DETAILS (IF OTHER)
N/A	

Add

Transit & Waste Routes

Transit Route

Internal Surfaces	N/A
Internal Surface Protection	N/A
External Surfaces	N/A
External Surface Protection	N/A
Route Segregated using	N/A
Transit Route Distance	N/A
	N/A

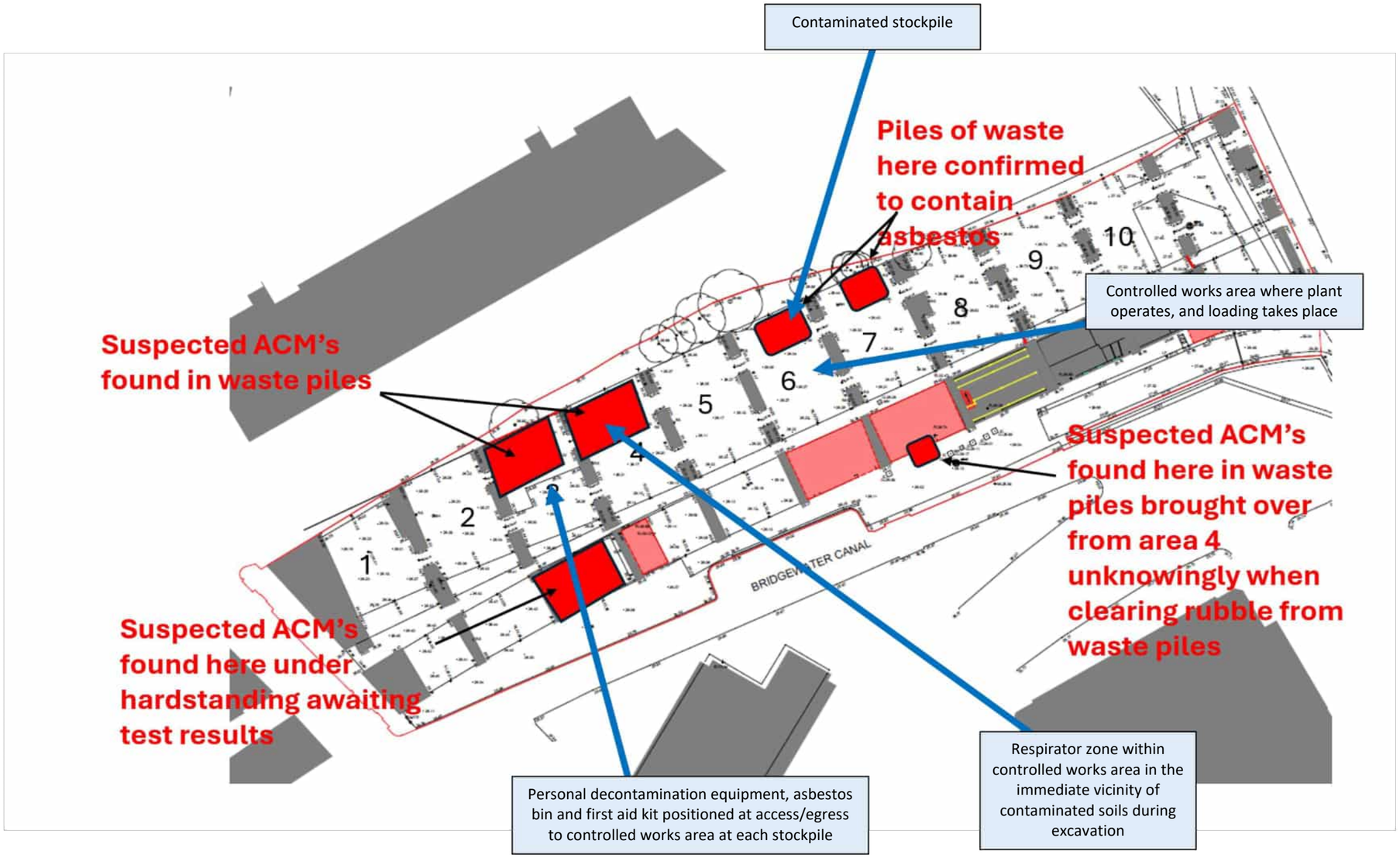
Waste Route

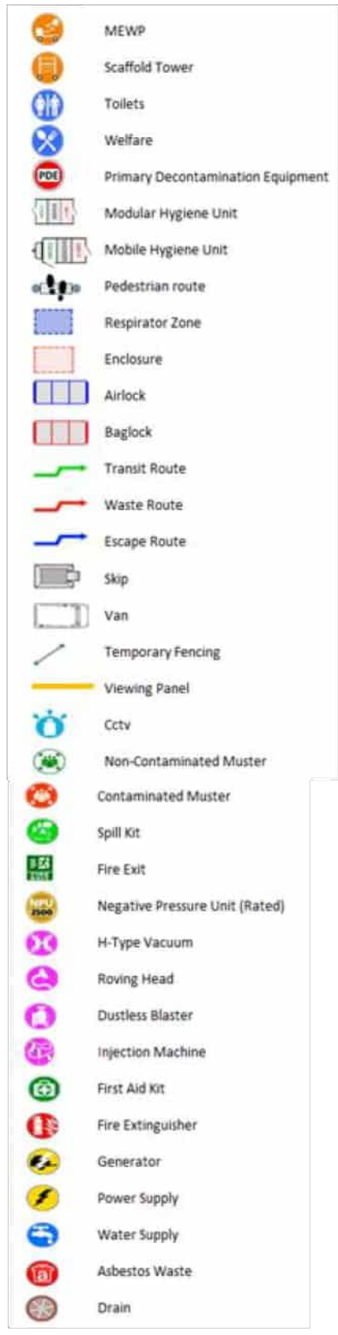
Internal Surfaces	N/A
Internal Surface Protection	N/A
External Surfaces	N/A
External Surface Protection	N/A
Route Segregated using	N/A
Waste Route Distance	N/A
	N/A

Waste Movement Details

All waste will be loaded directly into 8-Wheel Tipper Wagons and taken directly to land fill, each wagon to have its own specfic consignment note = This will be monitored and co-ordinated by Rhodar Demolition

Proposed Site Layout Drawing



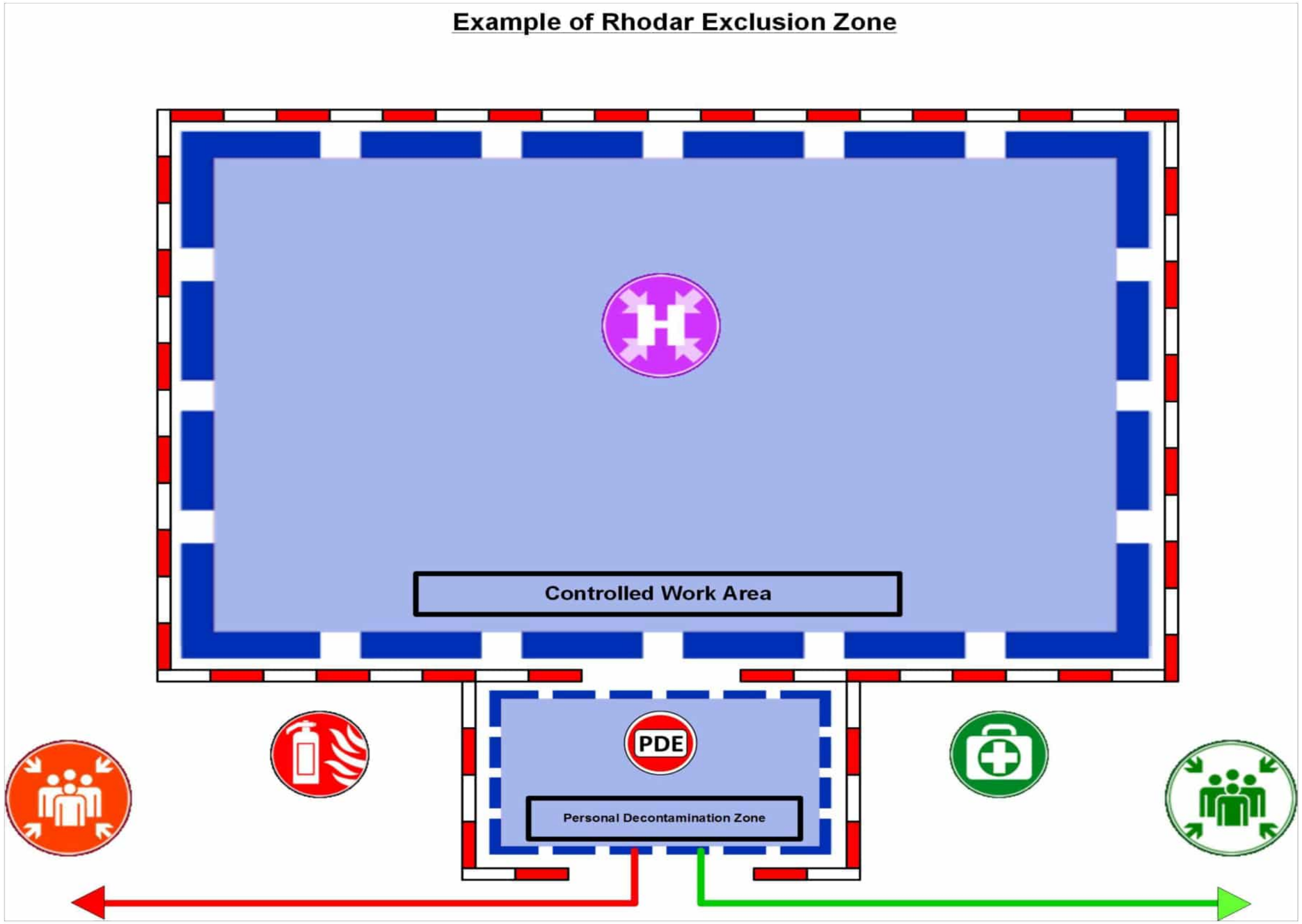


RHODAR
Specialist Enabling Works
ASBESTOS | DEMOLITION | REMEDIATION

PROJECT OVERVIEW SITE PLAN



PROJECT OVERVIEW SITE PLAN



SCOPE OF WORKS

Removal of soils and disposed of as hazardous waste, Rhodar demolition will provide 12ton excavators and dumper to move and load 8 wheel tippers.

A designated route will be identified for the 8 wheeler tippers to drive into site loaded and then drive off the site without the need for a wheel wash.

Machines used to move soils will be cleaned down in a respirator zone following works including the bucket and tracks, these will be placed onto polythene following movement and cleaned ensuring all debris are clear.

All polythene/visqueen following works will be disposed of as asbestos waste

It has been identified that there is 70ton of contaminated soils to be removed.

Rhodar asbestos teams will remove all obstructive materials prior to movement, these will be wrapped in polythene and disposed of as asbestos waste.

Appointed Works

RIS have commissioned Rhodar as specialist asbestos remediation contractors to carry out the following:

1. Removal of hazardous soils within the specific location under controlled conditions;
2. Removal of obstructive materials and wrap in polythene for disposal as asbestos waste

This Plan of Work relates to remediation activities for Points 1-2, above only.

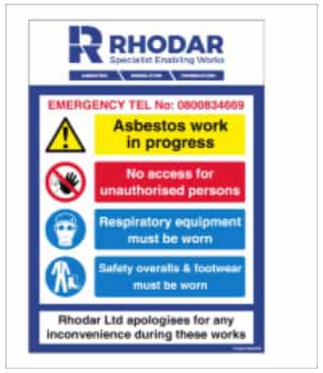
The objective of the remediation works is:

- To safely facilitate the excavation and removal of asbestos impacted soils from the proposed construction location.

Plan of Works

SITE SET UP

The site shall be set-up as per drawing. An exclusion zone will be set up around the work area using red and white barrier tape and warning notices visible to prevent unauthorised access.



Example: Rhodar 4in1 Sign

Controlled Works Area

The controlled work area will be set up using existing marked fencing and signs detailed above. The controlled works area will comprise two portions:

1. The plant area – This is the area where the plant may move within the controlled works area and loading of soils will take place. The operatives will wear orinasal respirators and white disposable coveralls when working in this area; the plant operator will transit to the machine in whites and disposable boots no mask is required within the excavator.
2. The respirator zone – This is the area immediately around the stockpile and excavation area where initial excavation will take place.

   Operatives working in this area outside of the excavator will wear orinasal respirator with white disposable coveralls.

Personal decontamination facilities will be positioned at the entrance/exit to the controlled works area, these will be used by operatives moving in and out of the plant area.

Plan of Works

PERSONAL DECONTAMINATION

1. Within the exclusion zone a decontamination zone shall be formed. This will be demarcated with red and white barrier tape and warning notices on display.

2. A Rhodar Hygiene Station including a bucket/sponge and H-Type vac shall be sited within decontamination zone for decontamination purposes. This will include vacuuming dusts from overalls and wiping down half face respirators.



Example: Rhodar Hygiene Station

Transport Route

The transport route will facilitate access for the haulage wagons to the controlled works area for loading and removal of contaminated soils. Haulage vehicles will not reverse without a suitably qualified banksman being present.

The route will be followed as set out within the proposed site layout drawings set out within the demolition RAMS and will be a 1 way system

The controlled works area will remain in place for the duration of the excavation works.

Extent of Excavation

Based on the available information we anticipate the soil location for removal are likely to have maximum dimensions as follows:

70 ton of waste to be disposed

Excavation will progress until soils impacted with visible ACM debris have been removed. On completion the area will be subject to visual inspection by the third party analyst (OHC)

Duration and Equipment

We anticipate the excavation and removal works to take up to 3-5 days to complete. The duration of the works will be dependent on availability of haulage vehicles for disposal of materials off-site.

To undertake remediation the following personnel and equipment will be required:

- 1 man crew comprising 1no Asbestos Operatives
- 1x 12ton excavator with a trained operator;
- 1 x Dumber with trained operator
- 1 Independent Asbestos Analyst (OHC);
- 1 dust suppression hand pump and additional water reservoir;
- Relevant PPE including disposable coveralls and gloves together with half face respirators and wellingtons for walking on contaminated ground.

Soil Removal Constraints

All excavation will be undertaken by Rhodar Demolition teams, the Client will be responsible for all necessary permits and utility service detection and avoidance prior to commencement of the works. Excavation extents will be set out by the Client prior to works commencing.

Rhodar do not require any permits to work to be issued by Rhodar for these activities. Rhodar site personnel will adhere to Rhodar demolition site rules at all times during the works.

Rhodar have not been made aware of any utility service constraint to the works.

Rhodar demolition will provide secure welfare facilities to Rhodar operatives for the duration of the works.

ACM Disposal Arrangements

Hazardous Soils

For soils classified as hazardous due to the presence of visible asbestos the contaminated soils will be excavated and loaded directly into 8 wheel wagons.

Plan of Works

Waste Chain of Custody

Rhodar Demolition are in control of all waste removed from site and chain of custody details will be setout within there specific RAMS

Any potentially contaminated PPE/Consumables will be double bagged and placed in the lockable waste compartment of the Rhodar van. The contents will be emptied and taken to an appropriate waste facility within the designated waste compartment of the Rhodar vehicle. Only Rhodar approved asbestos operatives will access the waste compartment and warning notices will be placed on the bin in prominent locations to inform other site users that access is strictly forbidden.

METHOD OF WORK – REMOVAL OF CONTAMINATED SOILS

The following general procedure for removal of soils contaminated with asbestos will be undertaken to safely mitigate the identified asbestos risks.

Excavation and Loading of Soils

Excavation will be undertaken utilising a trained operator. Suitably qualified Rhodar personnel will supervise the excavation of asbestos contamination soils, the works will be undertaken as follows:

1. The area for excavation a will be demarcated;
2. Rhodar asbestos teams will firstly spray the soils for removal and remove any obstructive materials including – Timber, Tires etc
3. The excavator will stay on non-contaminated soils/concrete hardstanding at all times. Only the excavator arm and bucket are permitted to enter the respirator zone;
4. Impacted soils will be excavated under a watching brief by Rhodar personnel;
5. As soils are excavated will be loaded into small tippers and moved to a set location for loading into 8-wheelers
6. Further deleterious waste materials including plastics and oversized timber will be picked from the materials and disposed of as asbestos waste as soils are removed.
7. Rhodar personnel will wear white disposable coveralls and half masks if they are required to enter the respirator zone where excavation is being undertaken.

Plan of Works

Excavation will progress until all soils impacted with visible ACM debris have been removed or construction excavation level is reached. Works will be temporarily halted to allow levels to be obtained and the required levels to be set.

8. Once completed the bucket from the machine will be placed onto blue polythene were it will be cleaned by Rhodar operatives, all waste will be double bagged and disposed of as asbestos waste.

Assurance Monitoring

During the works an independent asbestos analyst (OHC) will undertake assurance air monitoring to confirm no fugitive release of asbestos fibres as a result of the works. The assurance air monitoring programme will comprise personal and background air monitoring during the excavation and loading of the asbestos contaminated soils. These air monitoring results will be provided to Rhodar demolition on completion of the works.

All works will be undertaken in accordance with Rhodars OG V5

SOILS LOCATION	DEBRIS WITHIN SOILS	DEBRIS WITHIN SOILS
		

15.0 - Risk Scoring Matrix

Site Job Number:	ENTH05543	**Assessor Name:**	Donavan Slee	**Assessor Signature:**	
Date:	27/09/2024	**Verifier Name:**	Chris Foy	**Verifier Signature:**	

Risk Rating Categories & Scoring Matrix. (Assessment to be completed in line with HSEQMS Section No. 20 Risk Assessment)

LIKELIHOOD		Loss, accident or illness could occur under freak conditions. The situation is well managed and all reasonable steps have been taken. Ideally this should represent normal operations.	The situation is well managed. However occasional lapses will occur. This also applies to situations where people are required to behave in a safe manner and are well trained with documentation in place.	Controls in place but loss may likely during normal operation due to emergencies or non-routine events, where unsafe conditions are not controlled or unsafe acts are unchallenged.	Serious failures in management controls. The effects of human behaviour or other factors could cause and accident but it is unlikely without other unsafe conditions present.	Absence of any Management Controls. If conditions remain unchanged there is an almost 100% certainty that an accident will occur.
SEVERITY		1	2	3	4	5
Near miss or minor property damage	1	1	2	3	4	5
Causing significant injuries (cuts, sprains, bruises e.g. First aid case)	2	2	4	6	8	10
Causing temporary disability (Lost Work Day Case / Lost Time Accident, fractures etc.)	3	3	6	9	12	15
Causing permanent disability or long life latency health risk (e.g. loss of limb, sight or hearing, industrial diseases)	4	4	8	12	16	20
Causing death to one or more people. Loss or damage is such that it could cause serious business disruption (major fire, explosion or structural damage)	5	5	10	15	20	25

NB. Select values for Severity (S) and Likelihood (L) according to risk and add values to related columns found in assessment tables. S x L = Risk Rating.

Activity	Significant Hazard/Risk Include environmental risks & any residual risks identified by designers.	Severity - S	Likelihood - L	Risk - S * L = ?	Persons at Risk = ✓ Site Team	Public	Subcontractor	Other	Control Measures Actions required to eliminate, substitute, reduce, or control risks.	S	L	Risk	Action To Be Taken By
Working with an ACM (non-enclosure works)	Exposure to Asbestos: Spread of asbestos Hazardous waste	5	5	25	✓##				All works will be carried out in accordance to the plan of works and RHODAR Operating Guidance to reduce the air borne fibre level. All operatives will be wearing the appropriate RPE throughout the works as identified within the plan of works Sprays of fibre suppressant to be utilised. RPE/PPE Shadow vacuuming Full / part time reassurance/ leak testing Personnel monitoring Respirator zone segregation Double bag waste to secure and dispose in line with waste management processes	5	3	15	Supervisor
Slips, Trips & Falls	Slips and Trips Loose leads Poor house keeping Diesel spillage Chemical spillage Uneven floors	4	5	20	✓				The surrounding area to the work site is to be kept clear of excess materials, well lit & all staff will wear safety shoes. Any potential trip hazards will be removed or highlighted if they can't be removed. Clean any spillage immediately. All cables to be elevated where possible and taped. Tape cables crossing the floors. Use of inflatable bund or drip tray. Cover floors with cordex/boards Use spill kit to clean up.	4	2	8	Supervisor
General Works	Injury to eyes Exposure to COSHH substance(s) Spills from chemical/diesel/red diesel Injury to hands Contact with Sharps	5	5	25	✓##				Safety glasses / goggles to be worn for the duration of the works. Full face Respirators COSHH controls to be applied, including wearing of gloves as required for work with substance hazardous to health. Spill kit to clean up any chemical/diesel spills Gloves to be worn for duration of the works. Cloth/Grip Glove (General Purpose)	5	3	15	Supervisor & Site Staff

Use of Hand Tools	Contact with sharp edges resulting from failure of hand tools i.e. loose heads, handles etc. Contact with blade of open bladed tools whilst cutting and shaping visqueen sheeting for formation of enclosures Contact with scraper of bladed scrapers removing textured coatings	4	5	20	✔				Supervisor to ensure that the correct tools are being used for the tasks. Use scissors/safety knives with concealed blades and safety bladed hand tools where possible All open bladed knives in use to have re-tractable blades Visual inspection of equipment prior to use ensuring defective tools withdrawn from service All blades on open bladed knives to be retracted when not in use Users to wear gloves wear possible to reduce risk from injury Bladed scrapers to have blades removed when scrapers not in use Cuts to be made away from user	4	2	8	Supervisor & Site Staff
Manual handling	Removal of Waste / risk of dropping / spill / litter Handling of Plant and materials	4	5	20	✔##				All waste will be removed using appropriately signed bags and will be loaded to a manageable weight for the individual, assessed by competent persons. Carrying of plant to be a two man operation Use of rubble trucks/wheelie bins/stair trolleys. Secondary support to be installed at opposite end of cut during removal of high level services Housekeeping, double bag and clean up process	4	2	8	Supervisor
Use of 24v cordless drill	Noise – See also Appendix B – Noise Assessment Hand Arm Vibration (HAVS) – see also Appendix C – HAVS assessment Dust Eye Injuries	3	3	9	✔				Cordless drill to be checked that it is maintained in good working condition. Low noise equipment to be used and ear protection to be worn when identified by equipment manufacturers. Eye protection to be worn (Full Face mask/safety glasses) Vibration to be limited by design and servicing the equipment along with the wearing of warm padded gloves. Supervisor to monitor and record exposure times to ensure Action value is worked to and employing task rotation where applicable.	3	1	3	Supervisor & Site Staff
Vehicle / Plant Movement	RHODAR staff and other site personnel coming into contact with the vehicle Leaks / spills of oil	5	4	20	✔##		✔##		Vehicle reversing activities are to be avoided wherever possible. Where reversing activities are unavoidable particularly whilst manoeuvring decontamination units / vehicle movement will be supervised by the Site Supervisor or a banks man. Follow site traffic routes at all times. Operatives are to keep to designated walkway routes at all times. Cross roads at designated points only. Vehicles must be parked in a manner that does not cause obstruction to other vehicles or pedestrians. Do not use mobile phones whilst driving Vehicle and pedestrian routes to be segregated. All staff working outside including contractors will wear hi-visibility clothing. A competent (only if has banksman training) / designated operative to be appointed by the client to act as banksman during all vehicle movements. Use spill kit to clean up spills.	5	2	10	Supervisor

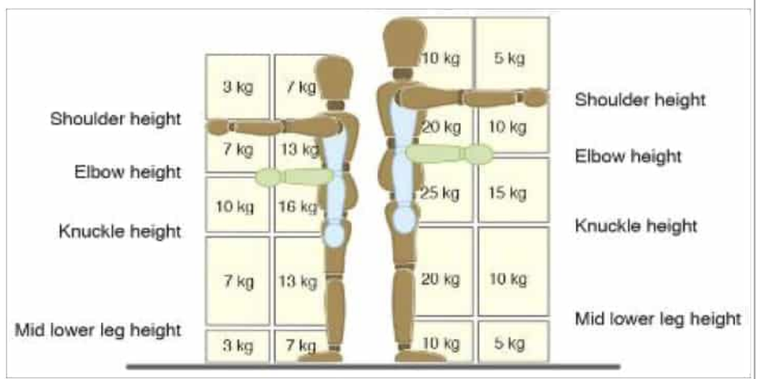
Standard Site Manual Handling Operations

MANUAL HANDLING
MH-009 – Lifting, Handling and Carrying 1000g Rolls of Plastic Sheeting
MH-016 – Lifting, Handling and Carrying of Portable Generators
MH-019 – Lifting, Handling and Carrying Paints, Liquids and Chemicals up to 20kgs / 20ltrs
MH-021 – Lifting, Handling and Carrying Boxed Items up to 20 kgs
MH-026 – Lifting, Handling and Carrying 2" x 2" x 3000mm Timber
MH-030 – Lifting, Handling and Carrying Mac Vac's
MH-035 - Handling and Moving Portable Power Wash

Specific Site Manual Handling Operations

Category	Item	Length	Width	Depth	Weight	Lift (If applicable)	Control Measures	Distance of Transfer	Staircase Required	Transfer Control Measures
Masonry & Concrete	Spoil	1000mm	1000mm	1000mm	1800kg	No	All waste loaded directly into tippers	0-10m	No	All waste moved by machine
Soils / Clay	Wet	1000mm	1000mm	1000mm	2300kg	No	All waste loaded directly into tippers	0-10m	No	All waste moved by machine

Manual Handling Guidance



Principles of Safe Lifting Practice

Take Two - Carry out a self assessment of each load

• Think about the load, does it need carrying, or can a trolley or other equipment be used instead?
• Think about what you are going to do before you do it:
• Where is the load going?
• Does it need more than one person to lift safely?
• Is there enough room? How can you avoid having to twist when Lifting or putting the load down?
• Think about you, are you dressed for the job? Tight clothing can restrict movement.
• Do you have a health problem that might make you vulnerable to injury?
• If you are not sure of how heavy a load is, test it out before you try to lift it. Gently rock the load to test the weight and its distribution
• Remove any obstructions/tripping hazards from the route
• Work out where and how to take a rest if moving a heavy load over a long distance
• Are there any sharp edges? If so, then you may need to wear gloves to protect yourself

• If load is too bulky, look at ways in which to break it down

Lifting Technique

•Place your feet apart to make a stable base for lifting.
•Placing one leg forward in front of the other will help improve balance and control.
•If you have to reach out to the load, try sliding it towards you before attempting to lift it
If lifting from a low height, bend your knees, NOT your back.
•Stand correctly, keeping your back straight and your chin tucked in.
•Keep your shoulders level and facing the same direction as your hips.
•Lift smoothly, avoiding jerking movements.
•Lift your head first – your back then straightens automatically.
•Grip the load with your palms, rather than just your fingers – If you need to change your grip, rest the load first.
•Keep your arms close to your body to help support the load.
•Do not allow the load to obstruct your view – seek assistance if it is too large.

Moving the Load

•When carrying, keep the load as close to the body as possible.
•Keep the heaviest side of the load closest to your body.
•When pulling or pushing, use your body weight to move the load– if possible, let the momentum of the load do some of the work e.g. when pushing trolleys.
•When pulling, keep you're back straight and your arms as close to your body centre line as possible.
•Avoid twisting your body when turning.

All manual movement of items and materials will be undertaken in accordance with the manual handling assessment utilising manual handling aids where specified. Where items are designated for manual handling operatives are to notify the site supervisor in the event there are not comfortable with either the weight or dimensions of a load in question where the supervisor will undertake a review of the assessment and implement additonal controls and procedures or assign more suitable resource to the task.

HAV and Noise Assessment

Tool or Equipment Type	Tool Manufacturer	Model	Vibration Magnitude m/s2 r.ms	Exposure points per hour	Exposure points per minute	Time to reach EAV 2.5m/s2 A (8)		Time to reach ELV 2.5m/s2 A (8)		Noise Level (db)	Assigned Hearing Protection SNR39 Ear Plugs	Assigned Hearing Protection SNR37 Ear Defenders
						Hours	Minutes	Hours	Minutes			
Cordless Drill 18v	DeWalt	DCZ	11.0	242.0	4.03	0	25	1	39	100	✓	✓

All works involving exposure to Noise and Vibration to be carried out in conjunction with OG IMS 17.8

The above equipment has been selected and assessed for use on this project. Operatives will use the assessed equipment as detailed in the plan of work in rotation, working to the Exposure Action Value, exposure will be pro-rata where multiple tools are used in a session to ensure 100 exposure points are not exceeded.

The site supervisor will take into account the actual trigger time applied during any combined period of use ensuring the maximum time is not exceeded.

Ear protection zones will be formed and shall be marked with warnng signs and notices as far as is reasonably practicable, workers who enter the enclosures or designated zones will wear the assigned ear protection at all times whist in the zones.

Records of any noise and HAV monitoring undertaken will be kept on site by the supervisor and recorded on the noise and vibration exposure record form.

0148 1089

AIR MONITORING MINOR WORKS

Report No: 292794/001/CM/141020241210

Client	Rhodar	Date	14/10/2024	Start Time	12:10
Site address	Embassy Village, Egerton, Manchester, Greater Manchester, M15 4NU				
Asbestos removal contractor name and address	Rhodar Unit C, Astra Park, Leeds				
Location where work with asbestos has taken place	Embassy Village				
Description of work undertaken	Clearance of DCU.				
Has the contractor confirmed that their inspection of the work area is completed and satisfactory	Yes	**Analyst is not to proceed without contractor's confirmation of a satisfactory inspection**			

Check of site condition and job completeness			
Plan of work checked and entire work area defined / agreed	Yes	COMMENTS	satisfactory
Specified asbestos work completed	Yes	COMMENTS	satisfactory as far as reasonably practicable
Hygiene facilities operating and clean (if required)	Yes	COMMENTS	tested.
Have all waste bags, materials and unnecessary equipment been removed from work areas	Yes	COMMENTS	satisfactory
Have all visible traces of asbestos and other dust and debris been removed from work areas	Yes	COMMENTS	removal of debris as far as reasonably practicable. chance of buried debris may remain.
Has all asbestos containing material been removed as specified in the plan of work	Yes	COMMENTS	sa far as reasonably practicable. debris may remain as stated.
Is ACM remaining within the work area,which is not part of the abatement works contract, in a sound condition	Yes	COMMENTS	N/A
Transit and waste route free of ACM waste / debris	Yes	COMMENTS	no debris found on inspection

Inspection carried out by		Assessment date &Time
C Morewood		N/A N/A
Reassurance Air Tests	Pass	N/A

THE WORK AREA CAN BE REOCCUPIED

Air Monitoring Minor Works Certificate Issued By

Name:		Contractor's representative	
C Morewood		P Mcvey	
Title:	Analyst	Issue Date:	14/10/2024

Distribution: Copies to Site, Office and Client

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DMO
001154

The Hazardous Waste Regulations 2005: Consignment Note

201907

Augean

PART A Notification details

Sheet [ ] of [ ]

1 Consignment note code: RHODAR/00003

Complete with [R] for rejected load [ ]

2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):
Rhodar c/o Embassy Village Arches, Eggerton St, MANCHESTER M4 4JU

3 The waste will be taken to (name, address and postcode):
AUGEAN, PORT CLARENCE, off Huntsman Drive, MIDDLESBROUGH TS2 1UE

4 The waste producer was (if different from 2) (name, address,postcode, telephone, e-mail, facsimile):
Rhodar Industrial Services, Astra Park, Parkside Lane, LEEDS LS11 5SZ

PART B Description of the waste

Number of continuation sheets, if used [ ]

1 The process giving rise to the waste(s) was: Treatment and Disp of Haz Waste

2 SIC for the process giving rise to the waste: 38.22/[ ]

3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of Waste	EWC	Quantity	Component	Concentration (% or mg/kg)	Physical Form	Hazard code(s)	Container (size/type)
SUB SOILS	170503*		HEAVY METALS	>0.25<10%	SOLID	HP14 HP11	
			TPH	>0.1 <10%		HP7	

The information given below is to be completed for each EWC identified

EWC	Packing Group	UN number, Proper Shipping Name(s), and class	Special handling requirements
170503*	n/c	n/c	n/c

PART C Carrier's certificate

(If more than one carrier, attach schedule for subsequent carriers) [ ]

I certify that I today collected the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any specific handling requirements.

On behalf of (name, address, postcode, telephone, e-mail, facsimile):
LESTER ROAD M38 0PT.

1 Carrier name: ROY BRADWOOD

2 Carrier registration no./reason for exemption: CBDU 91464

3 Vehicle registration no. (or mode of transport, if not road): S700 RBS

Date: 10/10/2024
Time: 1030 (24 hr clock)

Signature: [redacted]

PART D Consignor's certificate

I certify that the information in A, B and C above is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste(England and Wales) Regulations 2011.

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

1 Consignor name:

Date: 10/10/2024
Time: 1030 (24 hr clock)

Signature: [redacted]

PART E Consignee's certificate

(where more than one waste type is collected all of the information given below must be completed for each EWC)

Description of Waste	EWC	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste Management operation (R & D code)
	170503*	18660	✓	R05

1 I received the waste at the address given in A4 on:
Date: 10/10/2024
Time: 1400 (24 hr clock)

Name: [redacted]

On behalf of (name, address, postcode, telephone, e-mail, facsimile):
AUGEAN, PORT CLARENCE, off Huntsman Drive, MIDDLESBROUGH TS2 1UE

2 Vehicle registration no. (or mode of transport if not road):

I certify that waste management licence/permit/authorised exemption no(s).
BV3956

authorises the management of the waste described in B at the address given in A4 [redacted]

Date: 10/10/2024
Time: 1400 (24 hr clock)

(Water version 3.81)

Augean

ADVICE/WASTE TRANSFER NOTE/
WEIGHBRIDGE TICKET

Augean North Limited
Augean PC Hazardous Landfill Site
Port Clarence Hazardous Landfill Site
Off Huntsman Drive
Stockton-on-Tees
TS2 1UE
Site Licence : EPR/BV1399IT/V009
SIC Code 2007 : 38110

CUSTOMER:	**HAULIER:**
EMBASSY VILLAGE RAILWAY ARCHES EGGERTON STREET MANCHESTER M4 4JU	ROY BRAIDWOOD AND SONS TRANSPORT LTD R BRAIDWOOD & SONS TRANSPORT LTD LESTER ROAD M38 0PT
ORDER NO: N/A	**VEH. TYPE:** Tipper
SOURCE: Manchester	**VEH. REG NO.:** S700RBS
	CARRIER NO.: CBDU91464
	TRANSFER NO.: RHODAR/00003

EWC CODE:	17 05 03*	**LFT REG NO.:**	
WASTE TYPE:	Soils c/w Hydrocarbons with Possible Heavy Metal Contamination 17 05 03*		
CONTAINER:	Bulk	**JOB NO.:**	201688
BAY:	9A1-4E-1	**WEIGHBRIDGE NO.:**	201907

	WEIGHT KG'S	**DATE/TIME**
GROSS	31460	10/10/2024 14:02:01
TARE	12800	08/10/2024 16:38:38
NET	18660	

PRINT NAME:	**SIGNATURE ON BEHALF OF CUSTOMER:**	**SIGNATURE FOR**
		[redacted]

The Hazardous Waste Regulations 2005:
Consignment Note

202980

Augean

PART A Notification details

Sheet [ ] of [ ]

1 Consignment note code: RHODAR/0000[3] [ ] Complete with (R) for rejected load

2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):
Rhodar c/o Embassy Village Arches, Eggerton St, MANCHESTER M4 4JU

3 The waste will be taken to (name, address and postcode):
AUGEAN, PORT CLARENCE, off Huntsman Drive, MIDDLESBROUGH TS2 1UE

4 The waste producer was (if different from 2) (name, address,postcode, telephone, e-mail, facsimile):
Rhodar Industrial Services, Astra Park, Parkside Lane, LEEDS LS11 5SZ

PART B Description of the waste

Number of continuation sheets, if used [ ]

1 The process giving rise to the waste(s) was: Treatment and Disp of Haz Waste

2 SIC for the process giving rise to the waste: 38.22/[ ]

3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of Waste	EWC	Quantity	Component	Concentration (% or mg/kg)	Physical Form	Hazard code(s)	Container (size/type)
SUB SOILS	170503*		HEAVY METALS	>0.25<10%	SOLID	HP14 HP11	
			TPH	>0.1 <10%		HP7	

The information given below is to be completed for each EWC identified

EWC	Packing Group	UN number, Proper Shipping Name(s), and class	Special handling requirements
170503*	n/c	n/c	n/c

PART C Carrier's certificate

(If more than one carrier, attach schedule for subsequent carriers) [ ]

I certify that I today collected the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any specific handling requirements.

On behalf of (name, address, postcode, telephone, e-mail, facsimile):
LESTER ROAD M38 OPT

1 Carrier name: ROY BRAIDWOOD

2 Carrier registration no./reason for exemption: CBDU 91464

3 Vehicle registration no. (or mode of transport if not road): [redacted] RBS

Date: 10/02/2024
Time: 1300 (24 hr clock)

Signature: [redacted]

PART D Consignor's certificate

I certify that the information in A, B and C above is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste(England and Wales) Regulations 2011.

1 Consignor name:

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

Date: 10/02/2024
Time: 1300 (24 hr clock)

Signature: [redacted]

PART E Consignee's certificate

(where more than one waste type is collected all of the information given below must be completed for each EWC)

Description of Waste	EWC	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste Management operation (R & D code)
	170503*	18020		D05

1 I received the waste at the address given in A4 on:
Date: 12/02/2024
Time: 0737 (24 hr clock)

Name: [redacted]

2 Vehicle registration no. (or mode of transport if not road): S700 RBS

On behalf of (name, address, postcode, telephone, e-mail, facsimile):
AUGEAN, PORT CLARENCE, off Huntsman Drive, MIDDLESBROUGH TS2 1UE

I certify that waste management licence/permit/authorised exemption no(s).

BV1399 authorises the management of the waste described in B at the address given in A4.

Date: 12/02/2024
Time: 0737 (24 hr clock)

Signature:

(Mikko version 3.81)

Augean

ADVICE/WASTE TRANSFER NOTE/
WEIGHBRIDGE TICKET

Augean North Limited
Augean PC Hazardous Landfill Site
Port Clarence Hazardous Landfill Site
Off Huntsman Drive
Stockton-on-Tees
TS2 1UE
Site Licence : EPR/BV1399IT/V009
SIC Code 2007 : 38110

CUSTOMER:	**HAULIER:**
EMBASSY VILLAGE RAILWAY ARCHES EGGERTON STREET MANCHESTER M4 4JU	ROY BRAIDWOOD AND SONS TRANSPORT LTD R BRAIDWOOD & SONS TRANSPORT LTD LESTER ROAD M38 0PT
ORDER NO: N/A	**VEH. TYPE:** Tipper
SOURCE: Manchester	**VEH. REG NO.:** S700RBS
	CARRIER NO.: CBDU91464
	TRANSFER NO.: RHODAR/00005

EWC CODE:	17 05 03*	**LFT REG NO.:**	
WASTE TYPE:	Soils c/w Hydrocarbons with Possible Heavy Metal Contamination 17 05 03*		
CONTAINER:	Bulk	**JOB NO.:**	201905
BAY:	9A1-4E-1	**WEIGHBRIDGE NO.:**	202980

	WEIGHT KG'S	**DATE/TIME**
GROSS	30820	14/10/2024 07:38:11
TARE	12800	08/10/2024 16:38:38
NET	18020	

PRINT NAME:	**SIGNATURE ON BEHALF OF CUSTOMER:**	**SIGNATURE FOR AUGEAN:**
	[redacted]	

The Hazardous Waste Regulations 2005: 202144
Consignment Note

Augean

PART A Notification details Sheet [ ] of [ ]

1 Consignment note code: R H O D A R / 0 0 0 0 4 [ ] Complete with [R] for rejected load

2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):
Rhodar c/o Embassy Village Arches, Eggerton St,
MANCHESTER M4 4JU

3 The waste will be taken to (name, address and postcode):
AUGEAN, PORT CLARENCE, off Huntsman Drive, MIDDLESBROUGH TS2 1UE

4 The waste producer was (if different from 2) (name, address,postcode, telephone, e-mail, facsimile):
Rhodar Industrial Services, Astra Park, Parkside Lane, LEEDS LS11 5SZ

PART B Description of the waste Number of continuation sheets, if used [ ]

1 The process giving rise to the waste(s) was: Treatment and Disp of Haz Waste

2 SIC for the process giving rise to the waste: 3 8 . 2 2 / [ ]

3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of Waste	EWC	Quantity	Component	Concentration (% or mg/kg)	Physical Form	Hazard code(s)	Container (size/type)
SUB SOILS	17 05 03*		HEAVY METALS	>0.25<10%	SOLID	HP14 HP11	
			TPH	>0.1 <10%		HP7	

The information given below is to be completed for each EWC identified

EWC	Packing Group	UN number, Proper Shipping Name(s), and class	Special handling requirements
17 05 03*	n/c	n/c	n/c

PART C Carrier's certificate (If more than one carrier, attach schedule for subsequent carriers) [ ]

I certify that I today collected the consignment and that the details in A3, A4 and B3 are correct and I have been advised of any specific handling requirements.

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

1 Carrier name: KAMIL PASIKA

2 Carrier registration no./reason for exemption: X300KMS

3 Vehicle registration no. (or mode of transport, if not road):

Date: 0 0 / 0 2 / 2 0 2 4
Time: 1405 (24 hr clock)

Signature: [redacted]

PART D Consignor's certificate

I certify that the information in A, B and C above is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste(England and Wales) Regulations 2011.

1 Consignor name:

On behalf of (name, address, postcode, telephone, e-mail, facsimile):

Date: D D / M M / Y Y Y Y
Time: H H / M M (24 hr clock)

Signature

PART E Consignee's certificate (where more than one waste type is collected all of the information given below must be completed for each EWC)

Description of Waste	EWC	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste Management operation (R & D code)
	17 05 03*	17840		D5

1 I received the waste at the address given in A4 on:
Date: 10 / 02 / 2024
Time: 0740 (24 hr clock)

Name: [redacted]

2 Vehicle registration no. (or mode of transport if not road): X30KRS

On behalf of (name, address, postcode, telephone, e-mail, facsimile):
AUGEAN, PORT CLARENCE, off Huntsman Drive, MIDDLESBROUGH TS2 1UE

I certify that waste management licence/permit/authorised exemption no(s).

19V1355 authorises the management of the waste described in B at the address given

Signature: [redacted]

Date: 10 / 02 / 2024
Time: 0740 (24 hr clock)

(Walker version 3.51)

Augean

ADVICE/WASTE TRANSFER NOTE/
WEIGHBRIDGE TICKET

Augean North Limited
Augean PC Hazardous Landfill Site
Port Clarence Hazardous Landfill Site
Off Huntsman Drive
Stockton-on-Tees
TS2 1UE
Site Licence : EPR/BV1399IT/V009
SIC Code 2007 : 38110

CUSTOMER:		**HAULIER:**	
EMBASSY VILLAGE RAILWAY ARCHES EGGERTON STREET MANCHESTER M4 4JU		ROY BRAIDWOOD AND SONS TRANSPORT LTD R BRAIDWOOD & SONS TRANSPORT LTD LESTER ROAD M38 0PT	
ORDER NO:	N/A	**VEH. TYPE:**	Tipper
SOURCE:	Manchester	**VEH. REG NO.:**	X300RBS
		CARRIER NO.:	CBDU91464
		TRANSFER NO.:	RHODAR/00004

EWC CODE:	17 05 03*	**LFT REG NO.:**	
WASTE TYPE:	Soils c/w Hydrocarbons with Possible Heavy Metal Contamination 17 05 03*		
CONTAINER:	Bulk	**JOB NO.:**	201690
BAY:	9A1-4E-1	**WEIGHBRIDGE NO.:**	202144

	WEIGHT KG'S	**DATE/TIME**
GROSS	29840	11/10/2024 07:39:13
TARE	12000	11/10/2024 07:39:46
NET	17840	

PRINT NAME:	**SIGNATURE ON BEHALF OF CUSTOMER:**	**SIGNATURE FOR AUGEAN:**
		[redacted]

Rev:	Description:	Date:	By:	Chkd:

Curtins Consulting Ltd.
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t: 0161 236 2394
e: manchester@curtins.com
www.curtins.com

Structures - Civils - Environmental - Infrastructure - Transport Planning - Sustainability - Expert Advisory Services
Birmingham - Bristol - Cardiff - Douglas - Edinburgh - Kendal - Leeds - Liverpool - London - Manchester - Nottingham

Status:

INFORMATION

Project:

Drg Title:

Scale:	Size:	First Issue:	Drawn:	Checked:
NTS	A3	XX/XX/XX	XX	XX

Drg No:	Rev:
XXXXXX-CUR-00-XX-DR-GE-00X	P0X

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Notes:	Excavation





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Location:	TP1
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Notes:	Excavation





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Notes:	Arisings





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Page Number:	18
Location:	Arch No. 5
Notes:	Concrete slab/hardstanding being lifted and removed.





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Page Number:	19
Location:	Arch No. 5
Notes:	Arisings of concrete slab/hardstanding removal.





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Page Number:	20
Location:	Arch No. 6
Notes:	Hardstanding being lifted and removed.



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Appendix G – Correspondence

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Jonathan Lord

From:	Corbin Mingo <corbin.mingo@vermontcl.com>
Sent:	23 February 2026 09:25
To:	Jonathan Lord; Rebecca Baksh-Jones
Cc:	Niall Farnworth; Charlie Smith; Jonathan Freeman; Alan Gordon; Sid; Matthew Mullarkey; Paul McGowan
Subject:	RE: Embassy Village - Planning discharges

Hi Jonathan,

I can confirm that no other unexpected contamination was encountered on the scheme. The only contamination was the asbestos as you mentioned below & the areas highlighted within the SI.

Regards,
Corbin Mingo
Senior Site Manager
vermont

m: 07423790313
e: corbin.mingo@vermontcl.com
w: www.vermontcl.com

Vermont Property Group Limited is a limited company registered in England and Wales. Registered number: 04848702
Vermont Construction (Manchester) Limited is a limited company registered in England and Wales. Registered number: 08963704
Vermont property Service company reg number 07249366

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From: Jonathan Lord <Jonathan.Lord@curtins.com>
Sent: 23 February 2026 09:14
To: Corbin Mingo <corbin.mingo@vermontcl.com>; Rebecca Baksh-Jones <Rebecca.Baksh-Jones@curtins.com>
Cc: Niall Farnworth <Niall.Farnworth@curtins.com>; Charlie Smith <Charlie.Smith@curtins.com>; Jonathan Freeman <Jonathan.Freeman@vermontcl.com>; Alan Gordon <alan.gordon@shipway.co.uk>; Sid <sid@embassyvillage.co.uk>; Matthew Mullarkey <Matthew.Mullarkey@vermontcl.com>; Paul McGowan <Paul.McGowan@vermontcl.com>
Subject: RE: Embassy Village - Planning discharges

This message originated outside of Vermont. Please exercise caution when responding or clicking links. If the sender purports to be a Vermont employee, they most likely are not.

Corbin,

Units 1 & 2
Deltic Place
Deltic Way
Knowsley Industrial Estate
Liverpool
L33 7BU

Telephone: (0151) 545 2750
Fax: (0151) 548 7892
Email: enquiries@ccgeotechnical.com
www.ccgeotechnical.com

CC GEOTECHNICAL LTD
Consulting Geoenvironmental and Geotechnical Engineers

CH CIVILS LTD
Francis Farm,
124 Lord Sefton Way
Great Altcar
L37 5AQ

7th July 2025

FAO: Chris Houghton

RE: SOIL CONTAMINATION ASSESSMENT FOR "TOPSOIL ANALYSIS" (CCG-C-23-14329)

Dear Sir,

CC GEOTECHNICAL LTD (*CCG*) was commissioned by *CH CIVILS LIMITED* to carry out a soil contamination assessment on 1nr soil sample. The soil sample and sampling location details were provided to *CCG* by *CH CIVILS LTD.*

As instructed, *CCG* had the soil analysed for a broad range of contaminants including metals, non-metals, speciated PAHs, TPHCWG and asbestos at a UKAS / MCERTs laboratory. The analytical report (23-64139) is attached herewith.

Accordingly, an assessment of the soil analysis data was carried out in accordance with the guidance presented in CLR11 and in accordance with current guidance and legislation. The Human Health Risk Assessment was carried out in accordance with the methodology for assessing soil data based on the most conservative criteria applicable to "Residential with home grown produce" land use scenario, given that the end use was not known at the time of reporting.

The Human Health Risk Assessment was carried out by comparison of the soil contamination results with the widely accepted LQM/CIEH suitable 4 Use Level (S4UL) assessment criteria 2015 (under CCG licence S4UL3233), with the exception of Lead. Lead was assessed against its C4SL value published by Defra.

The assessment identified no exceedances, with all contaminants below their respective threshold values. Therefore, no potential risk to human health is indicated and the soils may be used in a residential context. The soil assessment worksheets are presented herewith.

I trust all is clear. However, if you have any questions, please feel free to contact the undersigned.

Yours faithfully,

[redacted]

Laboratory Manager

Att: Analytical report (23-64139): Assessment worksheets

Registered in England & Wales, Company No. 5085241. Head Office: Unit 1, Deltic Place, Deltic Way, Knowsley Industrial Estate, Liverpool, L33 7BU

Constructionline Part of Capita plc
ISOQAR Certificate Number 7549 ISO 9001
RISQS AUDITED
CHAS Accredited Contractor
AGS Association of Geotechnical & Geoenvironmental Specialists
UKAS TESTING 4514
BUILDER'S PROFILE

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Analytical Report Number : 23-64139

Project / Site name:	Topsoil Analysis	**Samples received on:**	03/07/2025
Your job number:	CCG-C-23-14329	**Samples instructed on/ Analysis started on:**	03/07/2025
Your order number:	CCG-PO-14329	**Analysis completed by:**	07/07/2025
Report Issue Number:	1	**Report issued on:**	07/07/2025
Samples Analysed:	1 soil sample		



Signed:

Anna Goc
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: 23-64139
Project / Site name: Topsoil Analysis
Your Order No: CCG-PO-14329

Lab Sample Number				2853554
Sample Reference				S1
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				03/07/2025
Time Taken				0900
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	14
Total mass of sample received	kg	0.001	NONE	0.8

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	IZJ

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.4
Free Cyanide	mg/kg	1	MCERTS	< 1.0
Total Sulphate as SO4	%	0.005	MCERTS	0.036
Water Soluble Sulphate as SO4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	76
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0378
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	37.8
Sulphide	mg/kg	1	MCERTS	2.9
Organic Matter (automated)	%	0.1	MCERTS	4.3

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.21
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.39
Fluorene	mg/kg	0.05	MCERTS	0.21
Phenanthrene	mg/kg	0.05	MCERTS	1.6
Anthracene	mg/kg	0.05	MCERTS	0.25
Fluoranthene	mg/kg	0.05	MCERTS	1.7
Pyrene	mg/kg	0.05	MCERTS	1.8
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.86
Chrysene	mg/kg	0.05	MCERTS	1.1
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.2
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.31
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.86
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.4
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.15
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.59

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	11.6

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Analytical Report Number: 23-64139
Project / Site name: Topsoil Analysis
Your Order No: CCG-PO-14329

Lab Sample Number				2853554
Sample Reference				S1
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				03/07/2025
Time Taken				0900
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Heavy Metals / Metalloids				
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	3.3
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13
Boron (water soluble)	mg/kg	0.2	MCERTS	0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	15
Copper (aqua regia extractable)	mg/kg	1	MCERTS	50
Lead (aqua regia extractable)	mg/kg	1	MCERTS	110
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.6
Molybdenum (aqua regia extractable)	mg/kg	0.25	MCERTS	1.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	66
Monoaromatics & Oxygenates				
Benzene	µg/kg	5	MCERTS	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0
Petroleum Hydrocarbons				
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.02	NONE	< 0.020
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.02	NONE	< 0.020
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.05	NONE	< 0.050
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC35 - EC40 $_{EH_CU_1D_AL}$	mg/kg	10	NONE	< 10
TPH-CWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.01	NONE	< 0.010
TPH-CWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.01	NONE	< 0.010
TPH-CWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.05	NONE	< 0.050
TPH-CWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic >EC35 - EC40 $_{EH_CU_1D_AR}$	mg/kg	10	NONE	< 10
TPH Total C5 - C40 $_{EH_CU+HS_1D_TOTAL}$	mg/kg	10	NONE	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Analytical Report Number : 23-64139
Project / Site name: Topsoil Analysis

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2853554	S1	None Supplied	None Supplied	Brown clay and sand with gravel.

Analytical Report Number : 23-64139
Project / Site name: Topsoil Analysis

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards. Refer to CoA for analyte specific accreditation.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260. Refer to CoA for analyte specific accreditation	L073B-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID. Refer to CoA for band specific accreditation.	In-house method with silica gel split/clean up.	L088/76-PL	D	MCERTS
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS

Analytical Report Number : 23-64139
Project / Site name: Topsoil Analysis

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

METALS DATA SUMMARY AND RISK ASSESSMENT SHEET

Job number: CCG-C-23-14329
Site name: TOPSOIL ANALYSIS

Prepared by: DK
Authorised by: CB
Proposed land use: Residential with plant uptake
SOM % used: 2.5

= Threshold exceeded
= Below Limit of detection
n/t = Not tested

Contaminants			Metals							
			Cadmium	Chromium III	Chromium VI	Copper	Lead	Mercury (elemental)	Nickel	Zinc
Units			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Limit of Detection			0.5	5.0	0.8	5.0	5.0	0.5	5.0	5.0
Human Health Risk Assessment (GAC)			11	910	6	2400	200	1.2	180	3700
Sample Location	Sample Depth (m)	Sample type								
S1	0	SOIL	< 0.2	15	< 1.8	50	110	0.6	16	66
Human Health Risk Assessment (GAC)			11	910	6	2400	200	1.2	180	3700

SEMI-METALS, NON-METALS, INORGANICS AND OTHER DATA SUMMARY AND RISK ASSESSMENT SHEET

Job number: CCG-C-23-14329
Site name: TOPSOIL ANALYSIS

Prepared by: DK
Authorised by: CB
Proposed land use: Residential with plant uptake
SOM % used: 2.5

= Threshold exceeded
= Below Limit of detection
n/t = Not tested

			Semi/non-metals			Inorganics			Other	
Contaminants			Arsenic	Boron	Selenium	Cyanide (free)	Sulphate (water soluble)	Sulphate (water soluble)	pH (units)	Soil Organic Matter %
Units			mg/kg	mg/kg	mg/kg	mg/kg	g/l	mg/l	units	units
Limit of Detection			1.0	0.5	1.0	1.0	0.02	20.0	0.1	0.1
Human Health Risk Assessment (GAC)			37	290	350	22	NA	NA	NA	NA
Sample Location	Sample Depth (m)	Sample type								
S1	0	SOIL	13	0.2	< 1.0	< 1.0	0.0378	n/t	7.4	4.3
Human Health Risk Assessment (GAC)			37	290	350	22	NA	NA	NA	NA

SPECIATED PAH'S DATA SUMMARY AND RISK ASSESSMENT SHEET

Job number: CCG-C-23-14329
Site name: TOPSOIL ANALYSIS

Prepared by: DK
Authorised by: CB
Proposed land use: Residential with plant uptake
SOM % used: 2.5

= Threshold exceeded
= Below Limit of detection
n/t = Not tested

			PAH's															
Contaminants			Acenapthene	Acenapthylene	Anthracene	Benz[a]anthracene	Benzo[a]pyrene	Benzo[b]flouranthene	Benzo[ghi]perylene	Benzo[k]flouranthene	Chrysene	Dibenzo[ah]anthracene	Flouranthene	Flourene	Indeno[123-cd]pyrene	Napthalene	Pheanthrene	Pyrene	Total PAH's
Units			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Limit of Detection			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
Human Health Risk Assessment (GAC)			510	420	5400	11	2.7	3.3	340	93	22	0.28	560	400	36	5.6	220	1200	NA
Sample Location	Sample Depth (m)	Sample type																	
S1	0	SOIL	0.39	< 0.05	0.25	0.86	0.86	1.2	0.59	0.31	1.1	0.15	1.7	0.21	0.4	0.21	1.6	1.8	11.6
Human Health Risk Assessment (GAC)			510	420	5400	11	2.7	3.3	340	93	22	0.28	560	400	36	5.6	220	1200	NA

SPECIATED TPH'S DATA SUMMARY AND RISK ASSESSMENT SHEET

Job number: CCG-C-23-14329
Site name: TOPSOIL ANALYSIS

Prepared by: DK
Authorised by: CB
Proposed land use: Residential with plant uptake
SOM % used: 2.5

= Threshold exceeded
= Below Limit of detection
n/t = Not tested

			Speciated TPH's														
			Aromatics							Aliphatics							
Contaminants			EC5-7	EC7-8	EC8-10	EC10-12	EC12-16	EC16-21	EC21-35	EC35-44	EC5-6	EC6-8	EC8-10	EC10-12	EC12-16	EC16-35	EC35-44	TOTAL TPH'S
Units			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Limit of Detection			0.01	0.01	1.0	1.0	1.0	1.0	1.0	1.0	0.01	0.01	1.0	1.0	1.0	1.0	1.0	1.0
Human Health Risk Assessment (GAC)			140	290	83	180	330	540	1500	1500	78	230	65	330	2400	92000	92000	NA
Sample Location	Sample Depth (m)	Sample type																
S1	0	SOIL	< 0.010	< 0.010	< 0.050	< 1.0	< 2.0	< 10	< 10	< 10	< 0.020	< 0.020	< 0.050	< 1.0	< 2.0	n/t	< 10	< 10
Human Health Risk Assessment (GAC)			140	290	83	180	330	540	1500	1500	78	230	65	330	2400	92000	92000	NA

BTEX DATA SUMMARY AND RISK ASSESSMENT SHEET

Job number: CCG-C-23-14329
Site name: TOPSOIL ANALYSIS

Prepared by: DK
Authorised by: CB
Proposed land use: Residential with plant uptake
SOM % used: 2.5

= Threshold exceeded

= Below Limit of detection

n/t = Not tested

			BTEX			
Contaminants			Benzene	Toluene	Ethylbenzene	Total Xylenes
Units			µg/kg	µg/kg	µg/kg	µg/kg
Limit of Detection			10	10	10	10
Human Health Risk Assessment (GAC)			0.33	610	350	NA
Sample Location	Sample Depth (m)	Sample type				
S1	0	SOIL	< 5.0	< 5.0	< 5.0	< 5.0
Human Health Risk Assessment (GAC)			0.33	610	350	NA