GRM Development Solutions Ltd
Laurus House
First Avenue
Centrum 100
Burton upon Trent
Staffordshire
DE14 2WH

Tel: 01283 551 249
Web: www.grm-uk.com

Our Ref: GRM/P10227/CVL.1

Date: 7th August 2025

FAO Richard Barchha
Downing Construction

By Email Only

Dear Richard,

RE: P10227 First Street Manchester – Block D - Soil Validation Report (Phase A)

Further to your recent instructions GRM Development Solutions Ltd (GRM) have carried out the validation of the imported materials placed in the planting beds and soft landscaped areas at the above development pursuant to the discharge of condition 8. A development layout plan, with the landscape designs, is presented in Appendix A.

Background Information

It was recommended within the Cundall Remediation Strategy, dated 09/08/2016, (ref: 1011906.RPT.GL.006) that the quality of the materials imported for use in the landscaping areas should be assessed to confirm that the soils imported are suitable for use and will not present a risk to controlled waters, future site users and building materials. The criteria for validation of these materials is set out below;

- Topsoil is certified to British Standard BS3882:2015.
- Subsoil is certified to British Standard BS8601:2013.
- Chemical testing of imported of soils as set out in the table below. The results will be compared against the Remedial Targets presented in Appendix B.

Table 1. Soil Chemical Testing Frequencies

Source	Testing Frequency	Suite of testing
Site-won soils to be re-used.	1 per 100m^3	Asbestos screen test.
Imported virgin quarried material	1 or 2 depending on the type of stone utilised, to confirm the nature of the material.	Metals suite.
Imported crushed hardcore, stone, brick	Minimum 3 per source or 1 per 250m^3 (whichever is greater)	Metals suite, PAHs and asbestos screen.
Imported Greenfield / Manufactured soils	Minimum 3 per source or 1 per 200m^3 (whichever is greater)	Metals suite, PAHs and asbestos screen.
Imported Brownfield / Screened soils	Minimum 6 per source or 1 per 50m^3 (whichever is greater)	Metals suite, PAHs and asbestos screen.

Validation of Imported Soils
Topsoil was imported from four sources as a manufactured product, with a total approximate volume of 215m^3.

- Dandy's Landscape Supplies – multipurpose topsoil
- Green-tech Ltd - multipurpose topsoil (Rabbit Hill)
- Talbot Turf - topsoil
- SED Services – topsoil

The client supplied the import tickets and testing to BS3882:2015 for Dandy's, Green-tech and Talbot Turf which confirm the soils to be compliant with a multipurpose topsoil. Import tickets and British Standard test results are presented in Appendix C and D respectively.

Given the small volume imported overall, GRM attended site on 4th July 2025 and took four 'random' topsoil samples from various places across the planting beds and soft landscaped areas. The results were then compared against the Remedial Targets and none of the contaminant concentrations were found to be in exceedance. A plan showing the locations of the samples is presented in Appendix E, and photographs are provided in Appendix F.

Based upon the above information it is considered that the imported topsoil is suitable for use, and meets the requirements within the Remediation Strategy.

The chemical analysis certificate is presented in Appendix G.

Conclusions
Based upon the above information, it is considered that the remedial measures for Block D comply with the agreed Remediation Strategy. The risk to end-users has been mitigated and no further work is required.

We trust that the above is sufficient for your current purposes; however, should you require any queries please do not hesitate to contact us.

Yours sincerely,
for GRM Development Solutions Ltd

[redacted]

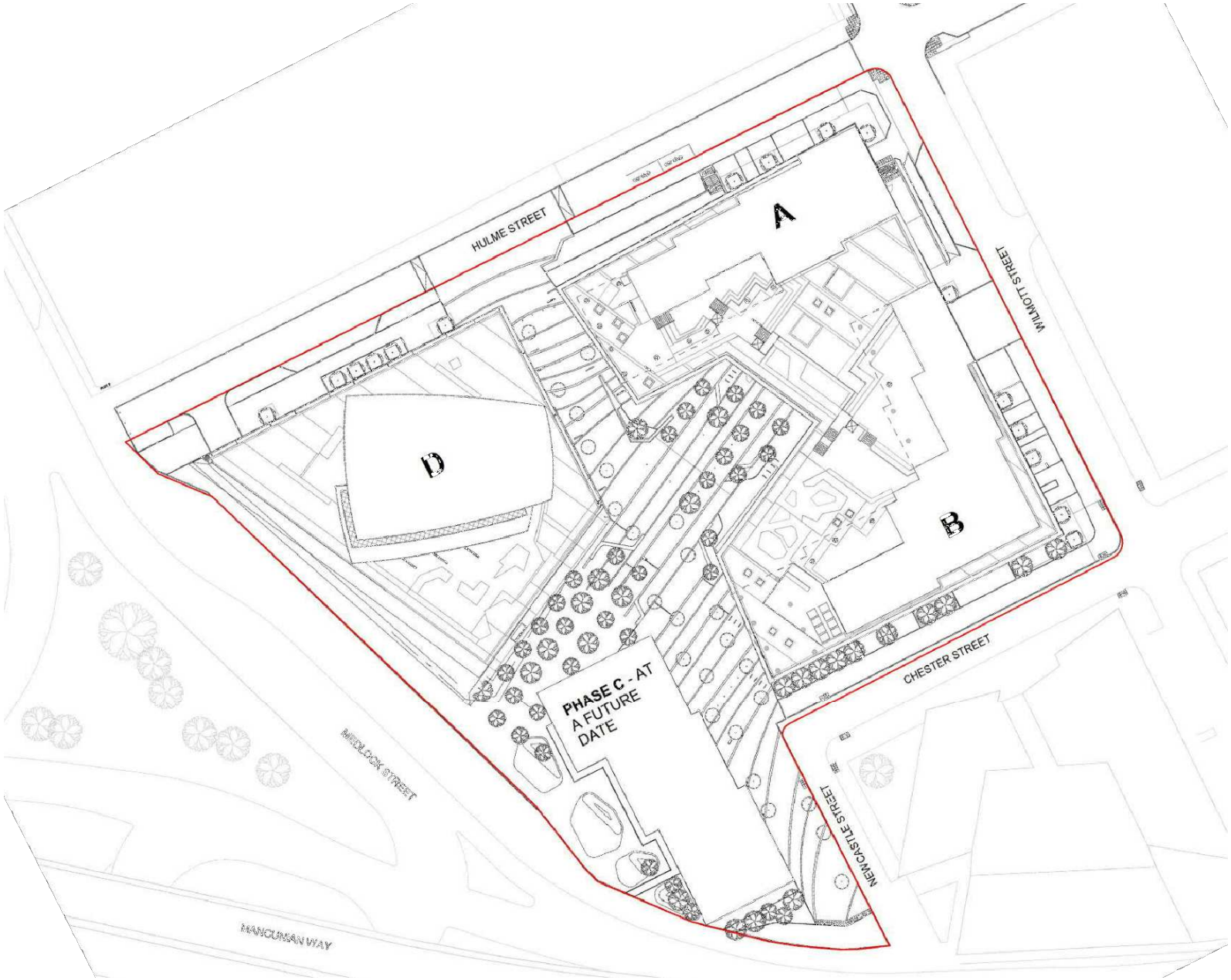
Charlotte Mortimer BSc (Hons) MIEnvSc
Senior Environmental Scientist

[redacted]

Siobhan Jackson BSc (Hons) MIEnvSc CEnv
Principal Geo-environmental Scientist

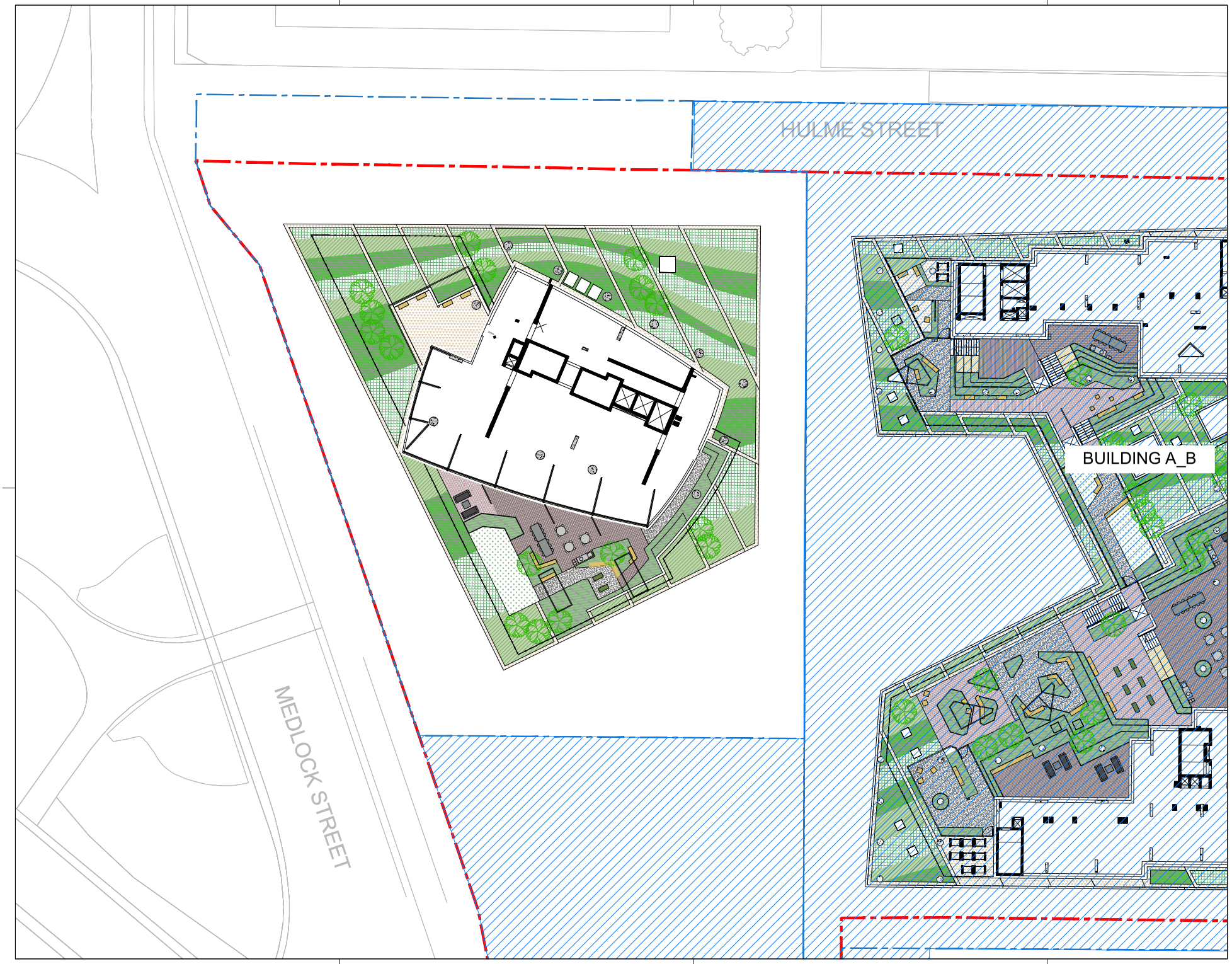
Enclosed
Appendix A – Development Layout
Appendix B – Remedial Targets
Appendix C – Import Tickets
Appendix D – British Topsoil Results
Appendix E – Topsoil Validation Sample Location Plan
Appendix F – Photographs
Appendix G – Chemical Analysis Certificates

APPENDIX A



NOTES:	CLIENT: Alan Johnston Partnership LLP	PROJECT P10227	DATE APR 2023	DESIGN/ DRAWN CM
	PROJECT: First Street, Manchester	DRAWING 01	ISSUE: FINAL	
	TITLE: Proposed Development Layout	© GRM Development Solutions Ltd © Crown Copyright. AL 100014100		

GRM Development Solutions Ltd
Tel: 01283 551 249
mail@grm-uk.com www.grm-uk.com

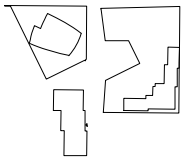


NOTES

1. This drawing is to be read in conjunction with all other drawings and specifications.
2. Do not scale off this drawing. Written dimensions to be taken only.
3. Any discrepancies found between this drawing and other drawings and specifications in the construction documents must be referred to the Landscape Architect prior to work commencing.
4. This drawing must not be copied in whole or in part without prior written consent of Optimised Environments Ltd.
5. Survey information is based upon aspect surveyors Topographical as Survey.

CDM INFORMATION

KEY PLAN



Issue	Revision	Initial	Date
02	DWG Number Typo	CO	04.01.23
01	STAGE 4 UPDATE	CO	15.12.22

optimised environments ltd

EDINBURGH 3rd Floor | Quartermile Two | 2 Lister Square | Edinburgh | EH3 9GL | 0131 221 6020 | w: optimisedenvironments.com

LONDON Waterford Court | 29 Throgmorton Street | London | EC2N 2AT | 020 7947 6092 | w: optimisedenvironments.com

MANCHESTER 13 Bower Street | Manchester | M4 5JJ | 0161 606 7150 | w: optimisedenvironments.com

Client
Downing Living (Manchester) Ltd

Project
PLOT 11 FIRST STREET SOUTH
Manchester

Drawing Title
BUILDING D
GENERAL ARRANGEMENTS PODIUM

Scale Bar 2m 4m 6m 8m 10m

North

Scale:	1:200@A1	Date:	Jan 2022
By:	CM	Status:	TENDER
Checked:	AW	Approved:	

Drawing Number: **M90183_D_L210** Rev: **02**

Computer File: R:\Projects\2019\M9018 3_First St\CAD\AUTOCAD\SHEET S\PHASE D

APPENDIX B

GRM Development Solutions Limited, Laurus House, First Avenue, Centrum 100, Burton upon Trent, Staffs DE14 2WH
www.grm-uk.com | info@grm-uk.com | 01283 551249 Company No. 3099018 (England), VAT Reg. No. 658 1005 48

Contaminant	Units	Threshold Value for Public Open Space (Residential)
Metals, pH, asbestos		
pH	pH units	N/A
Arsenic	mg/kg	79**
Cadmium	mg/kg	120**
Chromium (III)	mg/kg	1500**
Chromium (VI)	mg/kg	7.7**
Copper	mg/kg	12000**
Nickel	mg/kg	230** (inorganic)
Lead	mg/kg	630***
Mercury	mg/kg	120**
Selenium	mg/kg	1100**
Zinc	mg/kg	81000**
Asbestos	fibres	presence
PAHs		
Acenaphthylene	mg/kg	15000**
Acenaphthene	mg/kg	15000**
Anthracene	mg/kg	74000**
Benzo(a)anthracene	mg/kg	29**
Benzo(a)pyrene	mg/kg	5.7**
Benzo(b)fluoranthene	mg/kg	7.1**
Benzo(ghi)perylene	mg/kg	640**
Benzo(k)fluoranthene	mg/kg	190**
Chrysene	mg/kg	57**
Dibenzo(ah)anthracene	mg/kg	0.57**
Indeno(123cd)pyrene	mg/kg	82**
Fluoranthene	mg/kg	3100**
Fluorene	mg/kg	9900**
Naphthalene	mg/kg	4900**
Phenanthrene	mg/kg	3100**
Pyrene	mg/kg	7400**
TPHs		
Aliphatic C5-C6	mg/kg	570000**
Aliphatic C6-C8	mg/kg	600000**
Aliphatic C8-C10	mg/kg	13000**
Aliphatic C10-C12	mg/kg	13000**
Aliphatic C12-C16	mg/kg	13000**
Aliphatic C16-C35	mg/kg	250000**
Aromatic C5-C7	mg/kg	56000**
Aromatic C7-C8	mg/kg	56000**
Aromatic C8-C10	mg/kg	5000**
Aromatic C10-C12	mg/kg	5000**
Aromatic C12-C16	mg/kg	5100**
Aromatic C16-C21	mg/kg	3800**
Aromatic C21-C35	mg/kg	3800**

N/A – Not applicable / No threshold value exists.
PAHs & TPHs assume 1% Soil Organic Matter (SOM), Metals assume 6% (SOM)
* ATRISK
** LQM/CIEH S4ULs Public Open Space (Residential)
*** Department for Food& Rural Affairs C4SLs Public Open Space 1

APPENDIX C

WASTE TRANSFER NOTE / DUTY OF CARE

Permit : EPR/MP3135DF Permit : EPR/MP3093VU

Waste Carrier No : **CBDU49854**

Delivery Ticket No. 299432

...on Date:	Delivery Date:	Drivers Name:
16.1.25	16.1.25	D TITHER

From: SED	Deliver to: URBAN ROOTSCAPE FIRST ST. MANCH.
POC:	Stockpile:
Product: BGB	EWC:

Gross Weight:	Tare Weight:	Net Weight:
		8 N LOAD

Notes: J00 88693

Ve [redacted] Trailer No:

Producer of the Waste:- Goods Collected in Good Order and Condition

Signature:	Print Name:	Date:

Transfer Station:- Goods Received in Good Order and Condition

	Print Name:	Date:
[redacted]	Lewis Roberts	

I certify that the "Waste Hierarchy" has been applied as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

ISO 9001 ISO 14001 ISO 45001 FORS ID:008830

wamitab SSIP

Landgate Farm, Landgate Lane, Bryn, Wigan WN4 0EJ
Tel: 01942 723479 Fax: 01942 726555
e-mail: info@sedservices.co.uk
VAT No: 873841200 Company Registration No: 05602201

DAVID BRATT & SONS (HAULAGE) LIMITED

THE OAKS • 102 GROVE LANE
CHEADLE HULME • CHESHIRE • SK8 7ND
Tel: 0161 439 8124 Email: info@davidbratt.com
Fax: 0161 439 9002 www.davidbratt.com

General Haulage • Waste Skips
Crane Equipped Vehicles
Warehousing with 30 ton cranage

Customer: URBAN ROOFSCAPES LTD

Job Number: 775615
Customer Ref: PO-3239

Collection Address HIRE OF ARTIC FLAT -SIDE STRAPS - CHESTER DANDY'S CH1 6BS	**Delivery Address** MANCHESTER FIRST STREET Gate 3 M15 6JH
Collection Date: 08/04/25	**Delivery Date:** 08/04/25
Collection Time: 00:00	**Delivery Time:** 00:00
Driver Name: JAVAD	**Vehicle:** 269 [redacted]
Trailer:	**Cons Ref:**

Item Description:	Packs:	Cubic:	Weight:

Totals	Packs	Cubic	Weight

SPECIAL DELIVERY INSTRUCTIONS
** MUST PUT POSTS AND STRAPS UP **

13 x 1000kg bulk bags of Subsoil and 14 x 1000kg bulk bags topsoil

Start Time .....
Finish Time .....
Travel Time .....
Total .....

Received in Good Order and Condition

At ..... **am / pm** **on** ..... **Date**

.....

Recipient Signature **Print Name**

Any query regarding hours worked, will not be tolerated unless notified within 7 (seven) days.
Any loss or damage to be reported within 3 (three) days. Claims in writing within 7 (seven) days.
All goods are carried in accordance of RHA Conditions of Carriage 2020

ALLMI RHA driver cpc

DAVID BRATT & SONS (HAULAGE) LIMITED

THE OAKS • 102 GROVE LANE
CHEADLE HULME • CHESHIRE • SK8 7ND
Tel: 0161 439 8124 Email: info@davidbratt.com
Fax: 0161 439 9002 www.davidbratt.com

Jack Robinson

General Haulage • Waste Skips
Crane Equipped Vehicles
Warehousing with 30 ton cranage

Customer:	URBAN ROOFSCAPES LTD	**Job Number:**	779309
		Customer Ref:	PO-3239

Collection Address	**Delivery Address**
HIRE OF ARTIC FLAT -SIDE STRAP CHESTER DANDY'S SEALAND ROAD CH1 6BS	MANCHESTER 8.00 FIRST STREET M18

M15 6JH

Collection Date:	13/05/25	**Delivery Date:**	13/05/25
Collection Time:	00:00	**Delivery Time:**	08:00
Driver Name:	ROBBINS	**Vehicle:**	186 [redacted]
Trailer:	T154	**Cons Ref:**	TRAILER PARK

Item Description:	**Packs:**	**Cubic:**	**Weight:**

Totals	**Packs**	**Cubic**	**Weight**

SPECIAL DELIVERY INSTRUCTIONS
** MUST PUT POSTS AND STRAPS UP **
18t TOP SOIL AND 9t SUB SOIL

downing Chester
wilmnot

T154 loaded on trailer park.

Start Time	.....
Finish Time	.....
Travel Time	.....
Total	.....

Received in Good Order and Condition

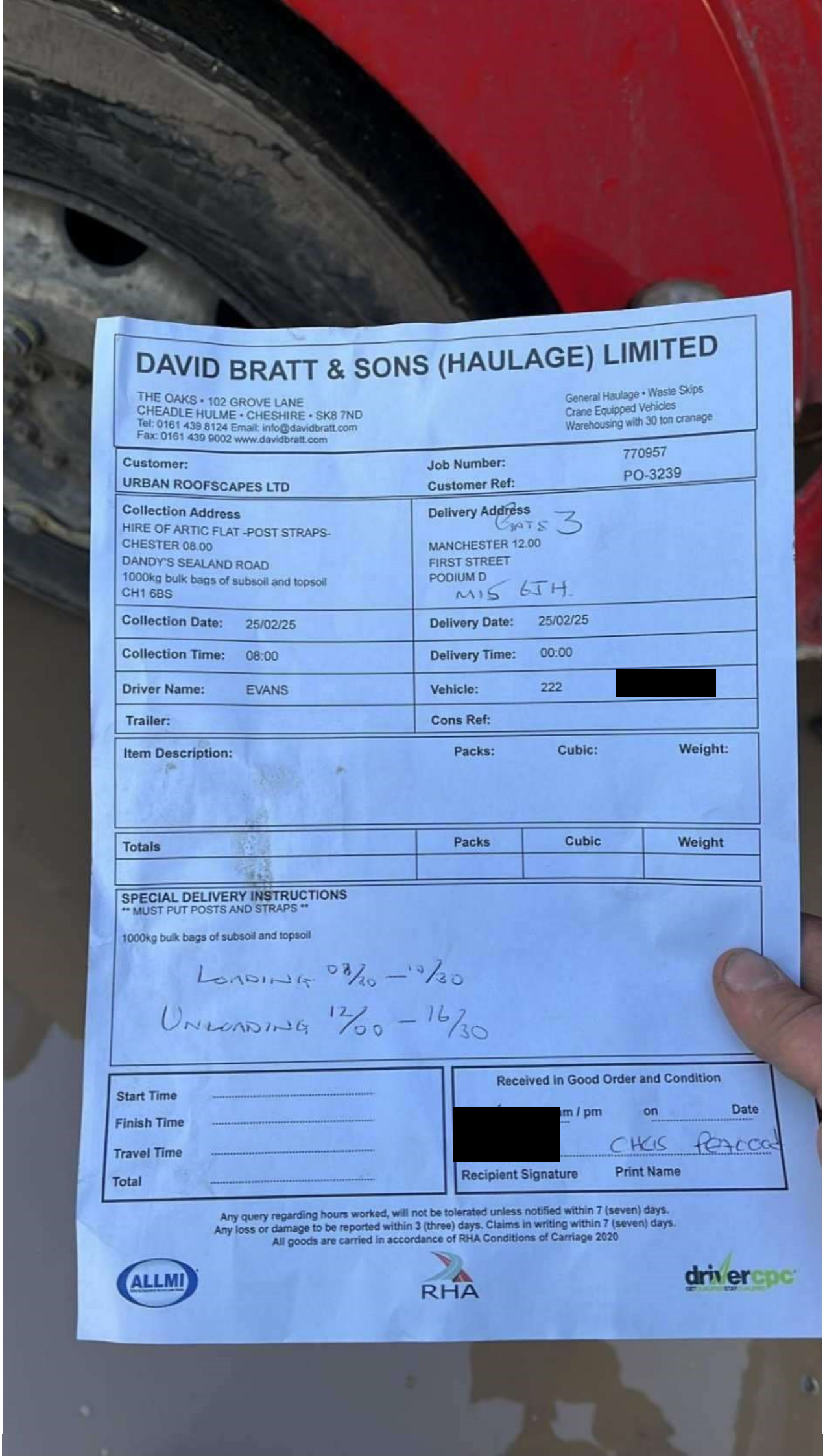
At ..... **am / pm** **on** .....

.....

Recipient Signature **Print Name**

Any query regarding hours worked, will not be tolerated unless notified within 7 (seven) days.
Any loss or damage to be reported within 3 (three) days. Claims in writing within 7 (seven) days.
All goods are carried in accordance of RHA Conditions of Carriage 2020

ALLMI RHA RTITB ACCREDITED driver cpc



DAVID BRATT & SONS (HAULAGE) LIMITED

THE OAKS • 102 GROVE LANE
CHEADLE HULME • CHESHIRE • SK8 7ND
Tel: 0161 439 8124 Email: info@davidbratt.com
Fax: 0161 439 9002 www.davidbratt.com

General Haulage • Waste Skips
Crane Equipped Vehicles
Warehousing with 30 ton cranage

Customer: URBAN ROOFSCAPES LTD	**Job Number:** 770957 **Customer Ref:** PO-3239
Collection Address HIRE OF ARTIC FLAT -POST STRAPS- CHESTER 08.00 DANDY'S SEALAND ROAD 1000kg bulk bags of subsoil and topsoil CH1 6BS	**Delivery Address** GATE 3 MANCHESTER 12.00 FIRST STREET PODIUM D M15 6JH.
Collection Date: 25/02/25	**Delivery Date:** 25/02/25
Collection Time: 08:00	**Delivery Time:** 00:00
Driver Name: EVANS	**Vehicle:** 222 [redacted]
Trailer:	**Cons Ref:**

Item Description:	Packs:	Cubic:	Weight:

Totals	Packs	Cubic	Weight

SPECIAL DELIVERY INSTRUCTIONS
** MUST PUT POSTS AND STRAPS **

1000kg bulk bags of subsoil and topsoil

LOADING 08/30 – 10/30

UNLOADING 12/00 – 16/30

Start Time	.....
Finish Time	.....
Travel Time	.....
Total	.....

Received in Good Order and Condition

[redacted] am / pm on ..... **Date**

CHRIS PENROSE

Recipient Signature **Print Name**

Any query regarding hours worked, will not be tolerated unless notified within 7 (seven) days.
Any loss or damage to be reported within 3 (three) days. Claims in writing within 7 (seven) days.
All goods are carried in accordance of RHA Conditions of Carriage 2020

ALLMI RHA driver cpc

WASTE TRANSFER NOTE / DUTY OF CARE

sed services ltd

Permit : EPR/MP3135DF Permit : EPR/MP3093VU
Waste Carrier No : CBDU49854

Delivery Ticket No. 328093

Collection Date:	Delivery Date:	Drivers Name:
28 4 25	29 4 25	Nathan

From: SED	Deliver to: Urban Roofscapes First St Manchester
POC:	Stockpile:
Product: 13G13 Sub	EWC:

Gross Weight:	Tare Weight:	Net Weight:

Notes: 13 13G13 13 Sub Waiting Time 1h 30min

Vehicle: [redacted] Trailer No: 23

Producer of the Waste:- Goods Collected in Good Order and Condition

Signature:	Print Name:	Date:

Transfer Station:- Goods Received in Good Order and Condition

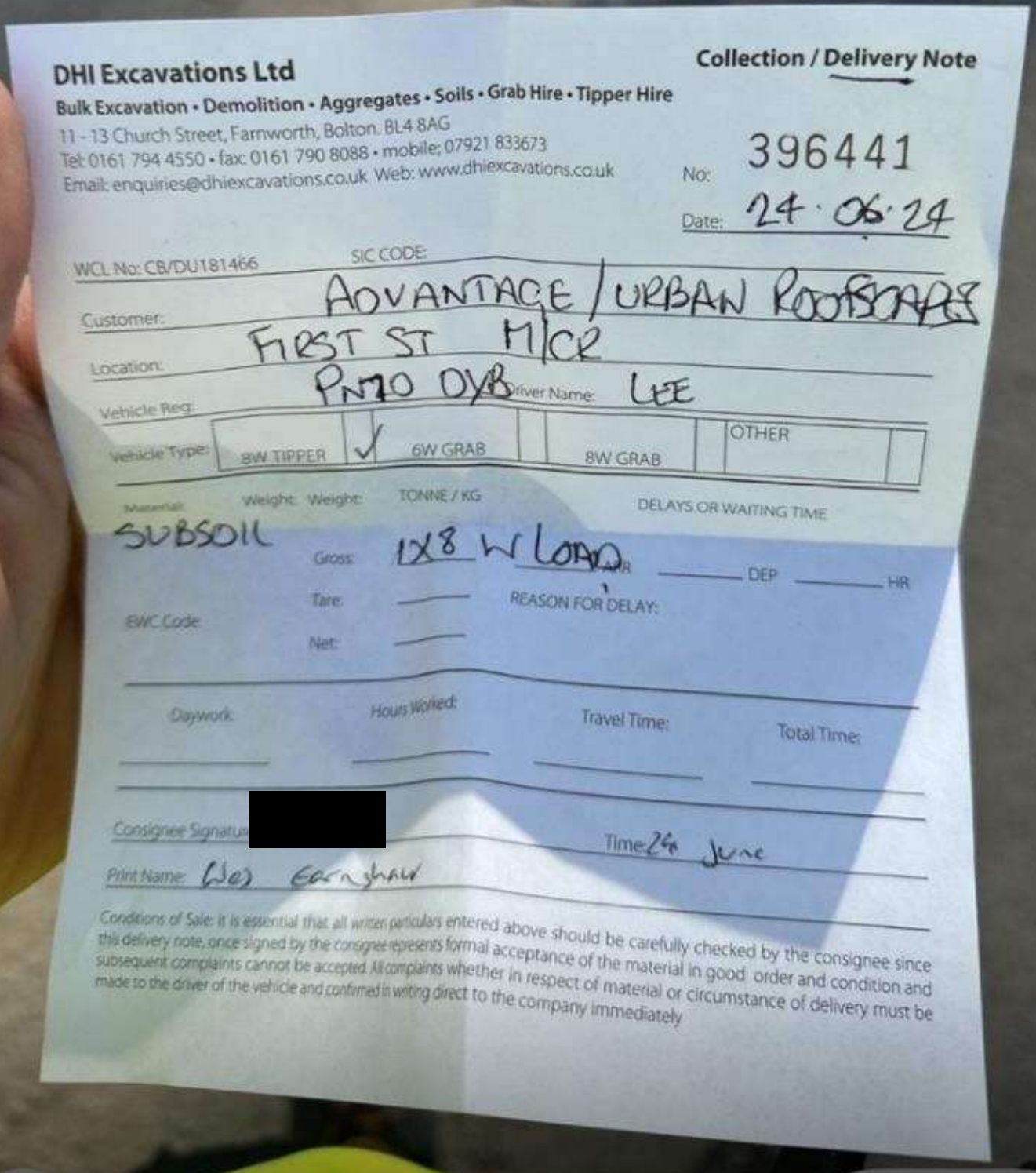
Signature:	Print Name:	Date:
[redacted]	Lewis Robb	29-4-25

I certify that the "Waste Hierarchy" has been applied as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

ISO 9001 ISO 14001 ISO 45001 FORS ID:008830 wamitab SSIP

Landgate Farm, Landgate Lane, Bryn, Wigan WN4 0EJ
Tel: 01942 723479 Fax: 01942 726555
e-mail: info@sedservices.co.uk
VAT No: 873841200 Company Registration No: 05602201

24 Jun 2024 at 7:58:45 AM
50 Chester Street
Manchester
England
M15
United Kingdom



DHI Excavations Ltd

Bulk Excavation • Demolition • Aggregates • Soils • Grab Hire • Tipper Hire

11 - 13 Church Street, Farnworth, Bolton. BL4 8AG
Tel: 0161 794 4550 • fax: 0161 790 8088 • mobile; 07921 833673
Email: enquiries@dhiexcavations.co.uk Web: www.dhiexcavations.co.uk

Collection / Delivery Note

No: 396441

Date: 24.06.24

WCL No: CB/DU181466 SIC CODE:

Customer: ADVANTAGE / URBAN ROOFSCAPES

Location: FIRST ST M1 CR

Vehicle Reg: PN70 DYB Driver Name: LEE

Vehicle Type: 8W TIPPER ✓ | 6W GRAB | 8W GRAB | OTHER

Material: SUBSOIL Weight: Gross: 1X8 W LOAD Tare: Net: Weight: TONNE / KG

DELAYS OR WAITING TIME: ARR ____ DEP ____ HR

REASON FOR DELAY:

EWC Code:

Daywork: Hours Worked: Travel Time: Total Time:

Consignee Signature: [redacted] Time: 24th June

Print Name: Wes Earnshaw

Conditions of Sale: it is essential that all written particulars entered above should be carefully checked by the consignee since this delivery note, once signed by the consignee represents formal acceptance of the material in good order and condition and subsequent complaints cannot be accepted. All complaints whether in respect of material or circumstance of delivery must be made to the driver of the vehicle and confirmed in writing direct to the company immediately

Reply

Alliance Electronic Proof of Delivery

FARRALLSGROUP

Consignor

Company: DANDYS TOPSOIL

Address: YEW TREE FARM
SEALAND ROAD
CHESTER
Flintshire
United Kingdom

Postcode: CH1 6BS

Phone: 01244 280008

Consignee

Company: Hedera Screens Ltd C/O Downings Construction

Address: 253 First street

Manchester

United Kingdom

Postcode: M15 4GU

Phone: +44 7960 606309

Contact:

Consignment Details:

Consignment Number:	142841	Collection Date:	15/05/2025
Customer Ref:		Due Del Date:	16/05/2025
Tracking No:	0590239472331		
Service:	A		
Surcharges:	TL ETA	Delivered Pallets:	3
Total Pallets:	3	Total Weight:	3,000

Consignment Notes:

Notes Line 1	DELIVER WITH T/LIFT - FRI 16TH MAY - MUST CLAL 1 HOUR BEFORE	Notes Line 3	
Notes Line 2	3 X MP TOPSOIL JB	Notes Line 4	

Printed Name:	Date of Delivery:	Time of Delivery:	POD Notes:
STEVE	16/05/2025	13:41	

Signature



Alliance Electronic Proof of Delivery

Consignor

Company: DANDYS TOPSOIL

Address: YEW TREE FARM
SEALAND ROAD
CHESTER
Flintshire
United Kingdom

Postcode: CH1 6BS

Phone: 01244 280008

Consignee

Company: Hedera Screens Ltd C/O Downings Construction

Address: 253 First street

Manchester

United Kingdom

Postcode: M15 4GU

Phone: +44 7960 606309

Contact:

Consignment Details:

Consignment Number:	142634	Collection Date:	13/05/2025
Customer Ref:		Due Del Date:	14/05/2025
Tracking No:	0590239447385		
Service:	A		
Surcharges:	TL ETA	Delivered Pallets:	8
Total Pallets:	8	Total Weight:	8,000

Consignment Notes:

Notes Line 1	DELIVER WITH T/LIFT - WEDS 14TH MAY - MUST CALL WHEN 1 HOUR AWAU	Notes Line 3	
Notes Line 2	8 X MP TOPSOIL JB	Notes Line 4	

Printed Name:	Date of Delivery:	Time of Delivery:	POD Notes:
LEWIS	14/05/2025	10:26	

Signature



Green-Tech Limited
Rabbit Hill Business Park
Great North Road, Arkendale
Knaresborough. HG5 0FF.

Pick List

Tel: 01423 332100 Fax: 01423 332101

Our Standard Terms & Conditions Apply

www.green-tech.co.uk

Inv. Address	Hedera Screens Ltd Unit 3 Chestnut Farm Ind. Est Ashby Road MOIRA Derbyshire DE12 6DP	Del Address:	Ship To: C/o Downings Construction 253 First Street MANCHESTER M15 4GU
Tel:	01530 560550		
Mobile:	[redacted]	Account No:	HEDE01

Order Date:	30.05.2025
Due Date: On	05.06.2025
Order No.:	444540
Cust Order Ref.:	Verbal
Shipping Type:	
Consignment No.:	442313/FARS
Shipping Service:	
	30.05.2025 11:49

PL No.	Item	Description	ATP	Qty to Pick	Qty Picked	Ship Type	Packed By
1	190GT4213	Rabbit Hill Green-Tree Topsoil (Bulk Bag) sales use	-74	24			
2	SHIPFL	Full Load Shipping - Artic	16,461	1			

Signature for Receipt of Goods and agreeance to T&C's.
Print Name underneath ..... [redacted]

Date: .....

[redacted]

Any Goods consisting of pesticides and chemicals are sold on the basis that they will be used by competent end users within the guidelines of the FEPA (Food and Environment Protection Act) 1985. Any such Goods are sold on the understanding that they are used strictly within the latest Approved Recommendations for such products. The Buyer acknowledges that when using pesticides and chemicals that they are qualified to do so and that they will ensure that any person that comes into contact with such Goods are similarly qualified and Greentech accepts no responsibility for any losses, damages or injuries incurred as a result of any such misuse.

Green-Tech Limited
Rabbit Hill Business Park
Great North Road, Arkendale
Knaresborough. HG5 0FF.

Tel: 01423 332100 Fax: 01423 332101

www.green-tech.co.uk

Pick List

[redacted] farsley load + GO 442003
22/05/25

Our Standard Terms & Conditions Apply

Inv. Address	Hedera Screens Ltd Unit 3 Chestnut Farm Ind. Est Ashby Road MOIRA Derbyshire DE12 6DP	Del Address: Ship To:	C/o Downings Construction 253 First Street MANCHESTER M15 4GU
Tel:	01530 560550		
Mobile:	[redacted]	Account No:	HEDE01

Order Date: 20.05.2025
Due Date: On 22.05.2025
Order No.: 443864
Cust Order Ref.: Verbal
Shipping Type:
Consignment No.: 442063/farsley
Shipping Service:
20.05.2025 13:38

PL No.	Item	Description	ATP	Qty to Pick	Qty Picked	Ship Type	Packed By
1	190GT4213	Rabbit Hill Green-Tree Topsoil (Bulk Bag) sales use	-76	24	✓		
2	SHIPFL	Full Load Shipping - Artic	16,442	1			

[redacted]

Based on Sales Quotations 474225.

Signature for Receipt of Goods and agreeance to T&C's.
Print Name underneath ..... [redacted]

Date: 22-5-25

** ON PALLETS **.

[redacted]

INVOICE 529890

Any Goods consisting of pesticides and chemicals are sold on the basis that they will be used by competent and users within the guidelines of the FEPA (Food and Environment Protection Act) 1985. Any such Goods are sold on the understanding that they are used strictly within the latest Approved Recommendations for such products. The Buyer acknowledges that when using pesticides and chemicals that they are qualified to do so and that they will ensure that any person that comes into contact with such Goods are similarly qualified and Greentech accepts no responsibility for any losses, damages or injuries incurred as a result of any such misuse.

DELIVERY NOTE

talbotturf

HEDERA SCREENS
FIRST STREET
MANCHESTER

Talbot Turf Supplies Ltd
Betty's Farm
Castle Way
Willington
Derby DE65 6BW
Tel: 01283 732755

Account:	**HED001**
Order No:	**PO-0089**
Rcpt Ref:	**1/000013514**
Doc No:	**1/000013368**
Page:	**1**
POS:	**EPOS01**
Order Date:	**01/07/2025**

accounts@hederascreens.co.uk

Description	Qty
TOPSOIL BS3882 BULK BAGS DELIVERED	**30**
DELIVERY CHARGE	**1**

DELIVERED VIA OUTSIDE HAULAGE MONDAY 30/6/2025

To Confirm Receipt:
Print Name_____

Signature_____

Turf Pallets In ☐ Turf Pallets Out ☐

Please see our website for terms and conditions at www.talbotturfsupplies.co.uk

DELIVERY NOTE

talbotturf

Talbot Turf Supplies Ltd
Betty's Farm
Castle Way
Willington
Derby DE65 6BW
Tel: 01283 732755

HEDERA SCREENS
FIRST STREET
MANCHESTER

Account:	**HED001**
Order No:	**PO-0090**
Rcpt Ref:	**1/000013625**
Doc No:	**1/000013479**
Page:	**1**
POS:	**EPOS01**
Order Date:	**08/07/2025**

accounts@hederascreens.co.uk

Description	Qty
TOPSOIL BULK BAG DELIVERED BS3882	**14**
DELIVERY CHARGE	**1**

DELIVERY 02/07/2025

To Confirm Receipt:
Print Name_____

Signature_____

Turf Pallets In ☐ Turf Pallets Out ☐

Please see our website for terms and conditions at www.talbotturfsupplies.co.uk

DELIVERY NOTE

talbotturf

Talbot Turf Supplies Ltd
Betty's Farm
Castle Way
Willington
Derby DE65 6BW
Tel: 01283 732755

HEDERA SCREENS
FIRST STREET
MANCHESTER
M15 4GU

[redacted]
accounts@hederascreens.co.uk

Account:	**HED001**
Order No:	**PO-0108**
Rcpt Ref:	**1/000013713**
Doc No:	**1/000013567**
Page:	**1**
POS:	**EPOS01**
Order Date:	**14/07/2025**

Description	Qty
TOPSOIL BB BS3882 DELIVERED	5
DELIVERY CHARGE	1

DELIVERY TUESDAY 15/07/2025

To Confirm Receipt:
Print Name_____

Signature_____

Turf Pallets In ☐ Turf Pallets Out ☐

Please see our website for terms and conditions at www.talbotturfsupplies.co.uk

DELIVERY NOTE

talbotturf

Talbot Turf Supplies Ltd
Betty's Farm
Castle Way
Willington
Derby DE65 6BW
Tel: 01283 732755

HEDERA SCREENS
FIRST STREET
MANCHESTER

Account:	HED001
Order No:	
Rcpt Ref:	1/000013911
Doc No:	1/000013763
Page:	1
POS:	EPOS01
Order Date:	25/07/2025

accounts@hederascreens.co.uk

Description	Qty
BS 3882 TOPSOIL BB DELIVERED- TRADE	15
DELIVERY CHARGE	1

DELIVERY WEDNESDAY 23/07

To Confirm Receipt:
Print Name_____

Signature_____

Turf Pallets In ☐ Turf Pallets Out ☐

Please see our website for terms and conditions at www.talbotturfsupplies.co.uk

DELIVERY NOTE

talbotturf

Talbot Turf Supplies Ltd
Betty's Farm
Castle Way
Willington
Derby DE65 6BW
Tel: 01283 732755

HEDERA SCREENS
FIRST STREET
MANCHESTER

Account:	HED001
Order No:	DELIVERY 22/07
Rcpt Ref:	1/000013910
Doc No:	1/000013762
Page:	1
POS:	EPOS01
Order Date:	25/07/2025

accounts@hederascreens.co.uk

Description	Qty
BS 3882 TOPSOIL BB DELIVERED- TRADE	15
DELIVERY CHARGE	1

DELIVERY 22/7/25

To Confirm Receipt:
Print Name_____

Signature_____

Turf Pallets In ☐ Turf Pallets Out ☐

Please see our website for terms and conditions at www.talbotturfsupplies.co.uk

APPENDIX D

GRM Development Solutions Limited, Laurus House, First Avenue, Centrum 100, Burton upon Trent, Staffs DE14 2WH
www.grm-uk.com | info@grm-uk.com | 01283 551249 Company No. 3099018 (England), VAT Reg. No. 658 1005 48

Multi Purpose Welsh Topsoil

BS3882 organic top soil and compost blend.

Product Overview

A versatile blend of 20mm organic, peat-free, virgin topsoil mixed with nutrient-rich organic compost. Ideal for growing herbs, vegetables, and supporting healthy lawns, beds, borders, and pots.

Property	Typical Value (Range)
Soil Texture	Loam (Balanced mix of sand, silt, and clay)
Sand Content	~50-60%
Silt Content	~20-30%
Clay Content	~10-20%
pH Level	6.0 – 7.5 (Neutral to slightly acidic)
Organic Matter	5-15%
Bulk Density	~1.2 – 1.4 g/cm^3
Moisture Retention	Moderate (Good drainage with some water retention)
Nutrient Availability	High (Due to compost enrichment)

Applications:

- Herb and vegetable cultivation
- Lawn underlay
- Beds and borders
- Pots and containers

Available Sizes:

- Jumbo Bulk Bag: ~1000kg
- Standard Bulk Bag: ~750kg
- Half Bulk Bag: ~500kg
- Handy Bags: ~25 litres/25kg each

Composition:

- 20mm screened organic, peat-free, virgin topsoil
- Nutrient-rich organic compost

Additional Notes:

- 100% peat-free to ensure environmental sustainability
- Samples available upon request
- Tested to BS3882

01244 280008 sales@dandys.com Dandys.com

Dandy's Landscape Supplies Centre, Sealand Road, Chester, CH1 6BS

TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

25th April 2025
Our Ref: TOHA/25/1786/SS
Your Ref: PO 60294161

Dear Sirs

Topsoil Analysis Report: Newark L20

We have completed the analysis of the LANDSCAPE 20 TOPSOIL sample recently submitted, referenced *Nwk/L20/Mar 25* and have pleasure reporting our findings.

The purpose of the analysis was to determine the suitability of the LANDSCAPE 20 TOPSOIL sample for general landscape purposes. In addition, this sample has been assessed to determine its compliance with the requirements of the British Standard for Topsoil *(BS3882:2015 - Specification for topsoil* – Table 1, *Multipurpose Topsoil)*.

This report presents the results of analysis for the sample submitted to our office, and it should be considered 'indicative' of the topsoil source. The report and results should therefore not be used by third parties as a means of verification or validation testing or waste designation purposes, especially after the topsoil has left the British Sugar factory.

SAMPLE EXAMINATION

The sample was described as a dark brown (Munsell Colour 10YR 3/3), slightly moist, friable, moderately calcareous SANDY LOAM with a moderately developed, fine to coarse granular structure*. The sample was virtually stone-free, and no unusual odours, deleterious materials, roots or rhizomes of pernicious weeds were observed.

*This appraisal of soil structure was made from examination of a disturbed sample. Structure is a key soil characteristic that may only be accurately assessed by examination in an in-situ state.

Tim O'Hare Associates LLP
Howbery Park Wallingford Oxfordshire OX10 8BA
T:01491 822653 E:info@toha.co.uk
www.toha.co.uk

Registered in England No. OC324049 Registered Office: The Innovation Centre, Howbery Park, Wallingford, Oxfordshire OX10 8BA

ANALYTICAL SCHEDULE

The sample was submitted to a UKAS and MCERTS accredited laboratory for a range of physical and chemical tests to confirm the composition and fertility of the soil, and the concentration of selected potential contaminants. The following parameters were determined:

- particle size analysis (sand, silt, clay);
- stone content (2-20mm, 20-50mm, >50mm);
- pH and electrical conductivity values;
- exchangeable sodium percentage;
- major plant nutrients (N, P, K, Mg);
- organic matter content;
- C:N ratio;
- heavy metals (As, Ba, Be, Cd, Cr, Cu, Pb, Hg, Ni, Se, V, Zn);
- total cyanide and total (mono) phenols;
- aromatic and aliphatic TPH (C5-C35 banding);
- speciated PAHs (US EPA16 suite);
- benzene, toluene, ethylbenzene, xylene;
- asbestos screen.

The results are presented on the attached Certificate of Analysis and an interpretation of the results is given below. The interpretation considers the use of the LANDSCAPE 20 TOPSOIL for general landscape purposes and its compliance/non-compliance with our general landscape specification.

RESULTS OF ANALYSIS

Particle Size Analysis and Stone Content

The sample fell into the *sandy loam* texture class, which is usually considered suitable for general landscape applications, provided the soil's physical condition is satisfactory.

The sample was virtually stone free and, as such, stones should not restrict the use of the soil for general landscape purposes.

pH and Electrical Conductivity Values

The sample was strongly alkaline in reaction (pH 8.1). This pH value would be considered suitable for general landscape purposes provided species with a wide pH tolerance or those known to prefer alkaline, calcareous soils are selected for planting, turfing and seeding.

The electrical conductivity (salinity) value (water extract) was moderate, which indicates that soluble salts should not be present at levels that would be harmful to plants.

The electrical conductivity value by $CaSO_4$ extract (*BS3882* requirement) fell below the maximum specified value (3300 µS/cm) given in *BS3882:2015 – Table 1.*

Organic Matter and Fertility Status

The sample was adequately supplied with organic matter and all major plant nutrients.

The C:N ratio of the sample was acceptable for general landscape purposes.

Potential Contaminants

With reference to *BS3882:2015* - Table 1: Notes 3 and 4, there is a requirement to confirm levels of potential contaminants in relation to the topsoil's proposed end use. This includes human health, environmental protection and metals considered toxic to plants. In the absence of site-specific criteria, the concentrations that affect human health have been compared with the *residential with homegrown produce* land use in the Suitable For Use Levels (S4ULs) presented in the *LQM/CIEH S4ULs for Human Health Risk Assessment* (2015) and the DEFRA SP1010: *Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination – Policy Companion Document* (2014). The concentration of barium has been compared with the *residential* land use given in the document *EIC/AGS/CL:AIRE Soil Generic Assessment Criteria for Human Health Risk Assessment* (2010).

Of the potential contaminants determined, none was found at levels that exceeded their guideline values.

Phytotoxic Contaminants

Of the phytotoxic (toxic to plants) contaminants determined (copper, nickel, zinc), none was found at levels that exceeded the maximum permissible levels specified in *BS3882:2015 – Table 1*.

CONCLUSION

The purpose of the analysis was to determine the suitability of the LANDSCAPE 20 TOPSOIL sample for general landscape purposes. In addition, this sample has been assessed to determine its compliance with the requirements of the British Standard for Topsoil *(BS3882:2015 - Specification for topsoil* – Table 1, *Multipurpose Topsoil)*.

From the soil examination and subsequent laboratory analysis, the sample was described as a strongly alkaline, non-saline, moderately calcareous sandy loam with a moderately developed structure. The sample was virtually stone free and was adequately supplied with organic matter and all major plant nutrients. Of the potential contaminants determined, none exceeded their respective guideline values.

To conclude based on our findings, the LANDSCAPE 20 TOPSOIL represented by this sample would be considered suitable for general landscape purposes (trees, shrubs and amenity grass), provided species with a wide pH tolerance or those known to prefer alkaline, calcareous soils are selected for planting, turfing and seeding and the soil's physical condition is satisfactory.

The topsoil was also fully compliant with the requirements of the British Standard for Topsoil *(BS3882:2015 – Specification for Topsoil - Table 1, Multipurpose Topsoil)*.

Soil Handling Recommendations

It is important to maintain the physical condition of the soil and avoid structural damage during all phases of soil handling (e.g. stockpiling, respreading, cultivating, planting). As a consequence, soil handling operations should be carried out when soil is reasonably dry and non-plastic (friable) in consistency.

It is important to ensure that the soil is not unnecessarily compacted by trampling or trafficking by site machinery, and soil handling should be stopped during and after heavy rainfall and not continued until the soil is friable in consistency. If the soil is structurally damaged and compacted at any stage during the course of soiling or landscaping works, it should be cultivated appropriately to relieve the compaction and to restore the soil's structure prior to any planting, turfing or seeding.

Further details on soil handling are provided in Annex A of *BS3882:2015*

We hope this report meets with your approval and provides the necessary information. Please do not hesitate to contact the undersigned if we can be of further assistance.

Yours faithfully

[redacted]

Harriet MacRae
BSc MSc
Soil Scientist

[redacted]

Aaron Cross
BSc MSc MISoilSci
Senior Soil Scientist

For & on behalf of Tim O'Hare Associates LLP

TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

Client:	**British Sugar plc Co-Products**
Client Ref:	**Newark - March 2025**
Job:	**Topsoil Analysis - BS3882:2015**
Date:	**25/04/2025**
Job Ref No:	**TOHA/25/1786/SS**

Sample Reference			**Nwk/L20/Mar25**	
Clay (<0.002mm)	%	U	16	✓
Silt (0.002-0.063mm)	%	U	18	✓
Sand (0.063-2.0mm)	%	U	66	✓
Texture Class (UK Classification)	--	U	SL	--
Stones (2-20mm)	% DW	G	1	✓
Stones (20-50mm)	% DW	G	0	✓
Stones (>50mm)	% DW	G	0	✓
pH Value (1:2.5 water extract)	units	G	8.1	✓
Electrical Conductivity (1:2.5 water extract)	uS/cm	U	970	✓
Electrical Conductivity (1:2 $CaSO_4$ extract)	uS/cm	U	2770	✓
Exchangeable Sodium Percentage	%	U	6.6	--
Moisture Content	%	U	19	--
Organic Matter (LOI)	%	U	4.5	✓
Total Nitrogen (Dumas)	%	U	0.30	✓
C : N Ratio	:1	U	9	✓
Extractable Phosphorus	mg/l	U	58	✓
Extractable Potassium	mg/l	U	901	✓
Extractable Magnesium	mg/l	U	132	✓
Total Arsenic (As)	mg/kg	M	11	✓
Total Barium (Ba)	mg/kg	M	82	✓
Total Beryllium (Be)	mg/kg	M	0.71	✓
Total Cadmium (Cd)	mg/kg	M	0.6	✓
Total Chromium (Cr)	mg/kg	M	24	✓
Hexavalent Chromium (Cr VI)	mg/kg	M	< 1.8	✓
Total Copper (Cu)	mg/kg	M	21	✓
Total Lead (Pb)	mg/kg	M	33	✓
Total Mercury (Hg)	mg/kg	M	< 0.3	✓
Total Nickel (Ni)	mg/kg	M	15	✓
Total Selenium (Se)	mg/kg	M	< 1.0	✓
Total Vanadium (V)	mg/kg	M	31	✓
Total Zinc (Zn)	mg/kg	M	69	✓
Water Soluble Boron (B)	mg/kg	M	1.6	✓
Total Cyanide (CN)	mg/kg	M	< 1.0	✓
Total (mono) Phenols	mg/kg	M	< 1.0	✓
Naphthalene	mg/kg	M	< 0.05	✓
Acenaphthylene	mg/kg	M	< 0.05	✓
Acenaphthene	mg/kg	M	< 0.05	✓
Fluorene	mg/kg	M	< 0.05	✓
Phenanthrene	mg/kg	M	0.17	✓
Anthracene	mg/kg	M	< 0.05	✓
Fluoranthene	mg/kg	M	0.21	✓
Pyrene	mg/kg	M	0.23	✓
Benzo(a)anthracene	mg/kg	M	< 0.05	✓
Chrysene	mg/kg	M	< 0.05	✓
Benzo(b)fluoranthene	mg/kg	M	< 0.05	✓
Benzo(k)fluoranthene	mg/kg	M	< 0.05	✓
Benzo(a)pyrene	mg/kg	M	0.21	✓
Indeno(1,2,3-cd)pyrene	mg/kg	M	0.12	✓
Dibenzo(a,h)anthracene	mg/kg	M	< 0.05	✓
Benzo(g,h,i)perylene	mg/kg	M	0.13	✓
Total PAHs (sum USEPA16)	mg/kg	M	1.07	✓
Aliphatic TPH (C5-C6)	mg/kg	M	< 0.010	✓
Aliphatic TPH (C6-C8)	mg/kg	M	< 0.010	✓
Aliphatic TPH (C8-C10)	mg/kg	M	< 0.010	✓
Aliphatic TPH (C10-C12)	mg/kg	M	< 1.0	✓
Aliphatic TPH (C12-C16)	mg/kg	M	< 2.0	✓
Aliphatic TPH (C16-C21)	mg/kg	M	< 8.0	✓
Aliphatic TPH (C21-C35)	mg/kg	M	< 8.0	✓
Aliphatic TPH (C5-C35)	mg/kg	M	< 10	✓
Aromatic TPH (C5-C7)	mg/kg	M	< 0.010	✓
Aromatic TPH (C7-C8)	mg/kg	M	< 0.010	✓
Aromatic TPH (C8-C10)	mg/kg	M	< 0.020	✓
Aromatic TPH (C10-C12)	mg/kg	M	< 1.0	✓
Aromatic TPH (C12-C16)	mg/kg	M	< 2.0	✓
Aromatic TPH (C16-C21)	mg/kg	M	< 10	✓
Aromatic TPH (C21-C35)	mg/kg	M	< 10	✓
Aromatic TPH (C5-C35)	mg/kg	M	< 10	✓
Benzene	mg/kg	M	< 0.005	✓
Toluene	mg/kg	M	< 0.005	✓
Ethylbenzene	mg/kg	M	< 0.005	✓
p & m-xylene	mg/kg	M	< 0.008	✓
o-xylene	mg/kg	M	< 0.005	✓
Asbestos	ND/D	I	Not-detected	✓

Visual Examination

The sample was described as a dark brown (Munsell Colour 10YR 3/3), slightly moist, friable, moderately calcareous SANDY LOAM with a moderately developed, fine to coarse granular structure. The sample was virtually stone-free, and no unusual odours, deleterious materials, roots or rhizomes of pernicious weeds were observed.

✓	Meets General Landscape Specification
X	Fails General Landscape Specification
*	See Report Comments
SL	SANDY LOAM Texture Class
M	MCERTS accredited method (& UKAS accredited method)
I	ISO 17025 accredited method
U	UKAS accredited method
G	GLP accredited method

This report presents the results of analysis for the sample submitted to our office, and it should be considered 'indicative' of the topsoil source. The report and results should therefore not be used by third parties as a means of verification or validation testing, especially after the topsoil has left the British Sugar factory.

[redacted]

Harriet MacRae
BSc MSc
Soil Scientist

Validated

CERTIFICATE OF ANALYSIS

SDG: 230708-21 **Report Number:** 698492 **Superseded Report:** 696648
Client Ref.: Screened Topsoil **Location:** Sealand Road, Chester

Lab Sample No.: 28293005 **Sample Ref.:** SCREENED TOPSOIL **Date Sampled :**
Sample Type : **Depth (m) :** **AGS Ref.:**

BS 3882 : 2015 SPECIFICATION FOR TOPSOIL

Pass BS 3882

				Compliant with Range (Y/N)					
	Unit	Result		Multi-P	Acid	Calc	Low Fertility	Low Fertility Acid	Low Fertility Calcareous
Texture									
Clay (<0.002mm)	%	10.8		Y	Y	Y	Y	Y	Y
Silt (0.063mm - 0.002mm)	%	13.9		Y	Y	Y	Y	Y	Y
Sand (2mm - 0.063mm)	%	75.3		Y	Y	Y	Y	Y	Y
Textural Class		Sandy Loam							
Mass Loss on Ignition %									
Loss on ignition	%	12.2		Y	Y	Y	N	N	N
Maximum coarse fragment content									
Coarse Fragment >2mm	%	19.67		Y	Y	Y	Y	Y	Y
Coarse Fragment >20mm	%	0.00		Y	Y	Y	Y	Y	Y
Coarse Fragment >50mm	%	0.00		Y	Y	Y	Y	Y	Y
Soil pH value									
pH	pH Units	7.98		Y	N	Y	Y	N	Y
Carbonate									
Carbonate as CaCO3	%	4.08				Y			Y
Available plant nutrient content									
Nitrogen, Total*	% Dry Weight	0.69		Y	Y	Y			
Extractable Phosphorous	mg/l	96.0	(5**)	Y	Y	Y	N	N	N
Extractable Potassium	mg/l	1350	(6**)	Y	Y	Y			
Extractable Magnesium	mg/l	223	(4**)	Y	Y	Y			
Carbon: Nitrogen ratio									
Top Soil 2015 Carbon:Nitrogen ratio	:1	10.4		Y	Y	Y	Y	Y	Y
Electrical Conductivity									
Conductivity (at 20 deg.C) (CaSO4)	mS/cm	3.19		Y	Y	Y	Y	Y	Y
Phytotoxic contaminants									
Zinc	mg/kg	121		Y	Y	Y	Y	Y	Y
Copper	mg/kg	33.8		Y	Y	Y	Y	Y	Y
Nickel	mg/kg	13.5		Y	Y	Y	Y	Y	Y
Visible contaminants									
Visible Contaminants >2mm	%	0.00		Y	Y	Y	Y	Y	Y
Visible Contaminants Plastics	%	0.01		Y	Y	Y	Y	Y	Y
Visible Contaminants Sharps	%	0.00		Y	Y	Y	Y	Y	Y
Compliancy				**Y**	**N**	**Y**	**N**	**N**	**N**

Results are expresed on a dry matter basis
**Soil indicies from RB209

Declaration: This sample has been analysed in accordance with BS 3882:2015

TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

Green-tech Ltd

Mr Mark Wood
Green-tech Ltd
Rabbit Hill Park
Great North Road
Arkendale
Knaresborough
North Yorkshire HG5 0FF

29th April 2021
Our Ref: TOHA/21/9924/SS
Your Ref: PO 410863

Dear Sirs

Topsoil Analysis Report: Rabbit Hill Topsoil

We have completed the analysis of the soil sample recently submitted, referenced *Rabbit Hill Topsoil* and have pleasure reporting our findings.

The purpose of the analysis was to determine the suitability of the sample for general landscape purposes (trees, shrubs, amenity grass). In addition, this sample has been assessed to determine its compliance with the requirements of the British Standard for Topsoil *(BS3882:2015 – Specification for topsoil and requirements for use – Table 1, Multipurpose Topsoil)*.

This report presents the results of analysis for the sample submitted to our office, and it should be considered 'indicative' of the topsoil source. The report and results should therefore not be used by third parties as a means of verification or validation testing, especially after the topsoil has left the Green-tech Ltd site.

SAMPLE EXAMINATION

The sample was described as a dark brown (Munsell Colour 7.5YR 3/4), slightly moist, friable, very slightly calcareous LOAMY SAND with a weakly developed, very fine to fine granular structure*. The sample was slightly stony and contained frequent organic fines and very occasional woody fragments. No unusual odours, deleterious materials, roots or rhizomes of pernicious weeds were observed.

*This appraisal of soil structure was made from examination of a disturbed sample(s). Structure is a key soil characteristic that may only be accurately assessed by examination in an in-situ state.

ANALYTICAL SCHEDULE

The sample was submitted to a UKAS and MCERTS accredited laboratory for a range of physical and chemical tests to confirm the composition and fertility of the soil, and the concentration of selected potential contaminants. The following parameters were determined:

- detailed particle size analysis ('5 sands', silt, clay);
- stone content (2-20mm, 20-50mm, >50mm);
- pH and electrical conductivity values;
- exchangeable sodium percentage;
- major plant nutrients (N, P, K, Mg);
- organic matter content;
- C:N ratio;
- heavy metals (As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn, B);
- total cyanide and total (mono) phenols;
- speciated PAHs (US EPA16 suite);
- aromatic and aliphatic TPH (C5-C35 banding);
- benzene, toluene, ethylbenzene, xylene (BTEX).

The results are presented on the attached Certificate of Analysis and an interpretation of the results is given below.

RESULTS OF ANALYSIS

Particle Size Analysis and Stone Content

The sample fell into the *loamy sand* texture class and exceeded our maximum recommended sand content of 85% for general landscape purposes. Such soils typically have good aeration and drainage properties, but can possess reduced water and nutrient retention capacities. However, in this instance the soil's organic matter content (5.2%) and high proportion of medium sand are likely to offset these factors and provide a suitable growing medium for general landscape applications.

The stone content of the sample was low and, as such, stones should not restrict the use of the soil for general landscape purposes.

pH and Electrical Conductivity Values

The sample was strongly alkaline in reaction (pH 8.2). This pH value would be considered suitable for general landscape purposes providing species with a wide pH tolerance or those known to prefer alkaline soils are selected for planting, turfing and seeding.

The electrical conductivity (salinity) value (water extract) was moderate, which indicates that soluble salts should not be present at levels that would be harmful to plants.

The electrical conductivity value by $CaSO_4$ extract (*BS3882* requirement) fell below the maximum specified value (3300 µS/cm) given in *BS3882:2015 – Table 1*.

Organic Matter and Fertility Status

The sample was well supplied with organic matter and all major plant nutrients.

The C:N ratio of the sample was acceptable for general landscape purposes.

Potential Contaminants

With reference to *BS3882:2015 - Table 1*: Notes 3 and 4, there is a recommendation to confirm levels of potential contaminants in relation to the topsoil's proposed end use. This includes human health, environmental protection and metals considered toxic to plants. In the absence of site-specific assessment criteria, the concentrations that affect human health have been compared with the *residential with home grown produce* land use in the Suitable For Use Levels (S4ULs) presented in *The LQM/CIEH S4ULs for Human Health Risk Assessment* (2015) and the DEFRA SP1010: *Development of Category 4 Screening Levels* (C4SLs) *for Assessment of Land Affected by Contamination – Policy Companion Document* (2014).

Of the potential contaminants determined, none was found at levels that exceeded their guideline values.

Green-tech Ltd

Phytotoxic Contaminants

Of the phytotoxic (toxic to plants) contaminants determined (copper, nickel, zinc), none was found at levels that exceeded the maximum permissible levels specified in *BS3882:2015 – Table 1*.

CONCLUSION

The purpose of the analysis was to determine the suitability of the topsoil sample for general landscape purposes. The analysis has also been undertaken to determine the sample's compliance with the requirements of the British Standard for Topsoil *(BS3882:2015 – Specification for topsoil and requirements for use – Table 1, Multipurpose Topsoil)*.

From the soil examination and subsequent laboratory analysis, the sample was described as a strongly alkaline, non-saline, very slightly calcareous loamy sand with a weakly developed structure and low stone content. The sample was well supplied with organic matter and all major plant nutrients. Of the potential contaminants determined, none exceeded their respective guideline values.

Based on our findings, the topsoil represented by this sample would be considered suitable for general landscape purposes provided only species tolerant of alkaline soil conditions are selected and the soil's physical condition is satisfactory.

The sample was largely compliant with the requirements of the British Standard for Topsoil (BS3882:2015 – Specification for Topsoil – Table 1, Multipurpose Topsoil) with the exception of the slightly high sand content. On this occasion, this non-compliance is considered minor when reviewed in the context of all the other results.

General Landscape Environments

Rootballed Trees

The most demanding planting environment is semi-mature, pit planted trees. Trees of this size and age have grown accustomed to optimum growing conditions in the nursery, and these need to be replicated when the rootballed or containerised tree is planted in the pit. In particular, aeration and drainage around the rootball are critical. Without these properties, trees will very quickly suffer and possibly die during their first few growing seasons after planting.

The topsoil can be used as backfill in tree pits to a maximum depth of 400mm, provided the topsoil is kept dry and non-plastic during planting.

Shrubs

Containerised shrubs are generally more tolerant of a wider range of soil-types, and they require less topsoil to root into than trees. The topsoil would be suited to a range of shrubs typically used in commercial and domestic landscaping.

Forestry Stock

Less demanding planting habitats include indigenous woodland planting, planted as small whips and feathered trees. The topsoil would be suitable for such planting environments.

Amenity Grass

This soil would be considered suitable for amenity grass seeding and turfing.

Sports Pitches

This soil is suited for sports pitch construction given its high sand content. However, all materials to be used for sports pitch construction, including topsoil, should be carefully considered in relation to the required performance and standard of the sports pitch.

Green-tech Ltd

Domestic Gardens

The horticultural properties of the soil would be suitable for domestic garden applications. In addition, of the potential contaminants determined, none was found at levels that would be considered elevated. However, permissible levels for potential contaminants do vary from site to site. Therefore, the suitability of topsoil represented by this sample for any particular project or development should be confirmed by comparing the results against the site's specific assessment criteria.

Soil Handling Recommendations

It is important to maintain the physical condition of the soil and avoid structural damage during all phases of soil handling (e.g. stockpiling, respreading, cultivating, planting, seeding or turfing). As a consequence, soil handling operations should be carried out when soil is reasonably dry and non-plastic (friable) in consistency.

It is important to ensure that the soil is not unnecessarily compacted by trampling or trafficking by site machinery, and soil handling should be stopped during and after heavy rainfall and not continued until the soil is friable in consistency. If the soil is structurally damaged and compacted at any stage during the course of soiling or landscaping works, it should be cultivated appropriately to relieve the compaction and to restore the soil's structure prior to any planting, turfing or seeding.

Further details on soil handling are provided in Annex A of *BS3882:2015*.

We hope this report meets with your approval and provides the necessary information. Please do not hesitate to contact the undersigned if we can be of further assistance.

Yours faithfully

[redacted]

Aaron Cross
BSc MSc
Soil Scientist

[redacted]

Laura Hathaway-Jenkins
BSc MSc EngD MISoilSci CSci
Senior Associate

For & on behalf of Tim O'Hare Associates LLP

Green-tech Ltd

TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

Client:	**Green-tech Ltd**
Project	**Rabbit Hill Topsoil**
Job:	**Topsoil Analysis - BS3882:2015**
Date:	**29/04/2021**
Job Ref No:	**TOHA/21/9924/SS**

Sample Reference			**Rabbit Hill Topsoil**
		Acreditation	
Clay (<0.002mm)	%	UKAS	8
Silt (0.002-0.063mm)	%	UKAS	5
Very Fine Sand (0.05-0.15mm)	%	UKAS	14
Fine Sand (0.15-0.25mm)	%	UKAS	26
Medium Sand (0.25-0.50mm)	%	UKAS	45
Coarse Sand (0.50-1.0mm)	%	UKAS	1
Very Coarse Sand (1.0-2.0mm)	%	UKAS	1
Total Sand	%	UKAS	87
Texture Class (UK Classification)	--	UKAS	LS
Stones (2-20mm)	% DW	GLP	6
Stones (20-50mm)	% DW	GLP	0
Stones (>50mm)	% DW	GLP	0
pH Value (1:2.5 water extract)	units	UKAS	8.2
Electrical Conductivity (1:2.5 water extract)	uS/cm	UKAS	756
Electrical Conductivity (1:2 $CaSO_4$ extract)	uS/cm	UKAS	2736
Exchangeable Sodium Percentage	%	UKAS	3.8
Organic Matter (LOI)	%	UKAS	5.2
Total Nitrogen (Dumas)	%	UKAS	0.45
C : N Ratio	ratio	UKAS	7
Extractable Phosphorus	mg/l	UKAS	41
Extractable Potassium	mg/l	UKAS	1033
Extractable Magnesium	mg/l	UKAS	135
Total Arsenic (As)	mg/kg	MCERTS	5
Total Cadmium (Cd)	mg/kg	MCERTS	< 0.2
Total Chromium (Cr)	mg/kg	MCERTS	8
Hexavalent Chromium (Cr VI)	mg/kg	MCERTS	< 4.0
Total Copper (Cu)	mg/kg	MCERTS	26
Total Lead (Pb)	mg/kg	MCERTS	13
Total Mercury (Hg)	mg/kg	MCERTS	< 0.3
Total Nickel (Ni)	mg/kg	MCERTS	9
Total Selenium (Se)	mg/kg	MCERTS	< 1.0
Total Zinc (Zn)	mg/kg	MCERTS	48
Water Soluble Boron (B)	mg/kg	MCERTS	2.4
Total Cyanide (CN)	mg/kg	MCERTS	< 1.0
Total (mono) Phenols	mg/kg	MCERTS	< 1.0
Naphthalene	mg/kg	MCERTS	< 0.05
Acenaphthylene	mg/kg	MCERTS	< 0.05
Acenaphthene	mg/kg	MCERTS	< 0.05
Fluorene	mg/kg	MCERTS	< 0.05
Phenanthrene	mg/kg	MCERTS	< 0.05
Anthracene	mg/kg	MCERTS	< 0.05
Fluoranthene	mg/kg	MCERTS	< 0.05
Pyrene	mg/kg	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	MCERTS	< 0.05
Chrysene	mg/kg	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	MCERTS	< 0.05
Benzo(k)fluoranthene	mg/kg	MCERTS	< 0.05
Benzo(a)pyrene	mg/kg	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	MCERTS	< 0.05
Dibenzo(a,h)anthracene	mg/kg	MCERTS	< 0.05
Benzo(g,h,i)perylene	mg/kg	MCERTS	< 0.05
Total PAHs (sum USEPA16)	mg/kg	MCERTS	< 0.80
Aliphatic TPH >C5 - C6	mg/kg	MCERTS	< 0.001
Aliphatic TPH >C6 - C8	mg/kg	MCERTS	< 0.001
Aliphatic TPH >C8 - C10	mg/kg	MCERTS	< 0.001
Aliphatic TPH >C10 - C12	mg/kg	MCERTS	< 1.0
Aliphatic TPH >C12 - C16	mg/kg	MCERTS	< 2.0
Aliphatic TPH >C16 - C21	mg/kg	MCERTS	< 8.0
Aliphatic TPH >C21 - C35	mg/kg	MCERTS	< 8.0
Aliphatic TPH (C5 - C35)	mg/kg	MCERTS	< 10
Aromatic TPH >C5 - C7	mg/kg	MCERTS	< 0.001
Aromatic TPH >C7 - C8	mg/kg	MCERTS	< 0.001
Aromatic TPH >C8 - C10	mg/kg	MCERTS	< 0.001
Aromatic TPH >C10 - C12	mg/kg	MCERTS	< 1.0
Aromatic TPH >C12 - C16	mg/kg	MCERTS	< 2.0
Aromatic TPH >C16 - C21	mg/kg	MCERTS	< 10
Aromatic TPH >C21 - C35	mg/kg	MCERTS	< 10
Aromatic TPH (C5 - C35)	mg/kg	MCERTS	< 10
Benzene	mg/kg	MCERTS	< 0.001
Toluene	mg/kg	MCERTS	< 0.001
Ethylbenzene	mg/kg	MCERTS	< 0.001
p & m-xylene	mg/kg	MCERTS	< 0.001
o-xylene	mg/kg	MCERTS	< 0.001
MTBE (Methyl Tertiary Butyl Ether)	mg/kg	MCERTS	< 0.001
Asbestos	ND/D	ISO 17025	Not-detected

LS = LOAMY SAND

Visual Examination

The sample was described as a dark brown (Munsell Colour 7.5YR 3/4), slightly moist, friable, very slightly calcareous LOAMY SAND with a weakly developed, very fine to fine granular structure. The sample was slightly stony and contained frequent organic fines and very occasional woody fragments. No unusual odours, deleterious materials, roots or rhizomes of pernicious weeds were observed.

[redacted]

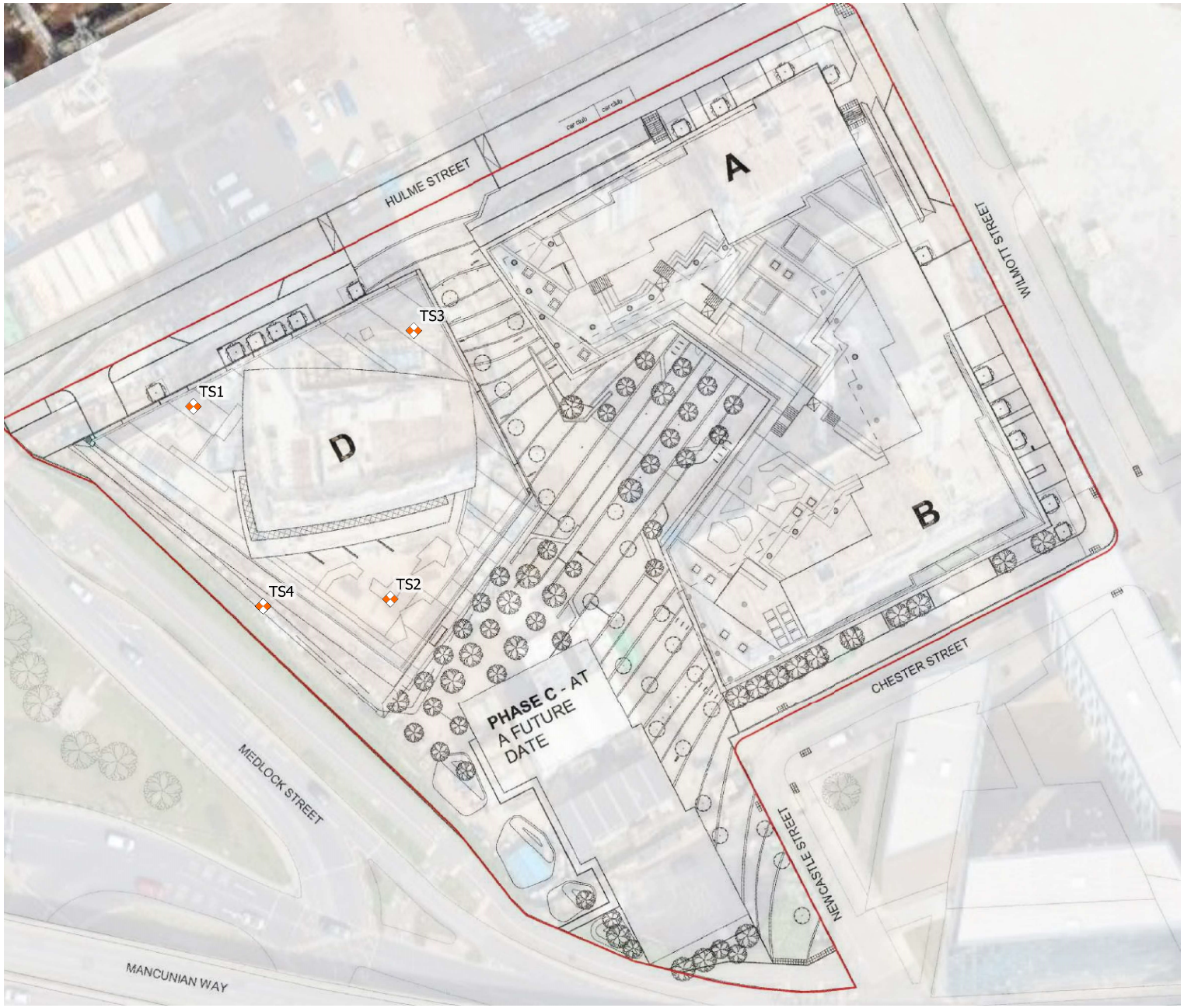
Aaron Cross
BSc MSc
Soil Scientist

Results of analysis should be read in conjunction with the report they were issued with

The contents of this certificate shall not be reproduced without the express written permission of Tim O'Hare Associates LLP

Green-tech Ltd

APPENDIX E



NOTES:	CLIENT: Alan Johnston Partnership LLP	PROJECT No: P10227	DATE: AUG 2025	DESIGN/DRAWN: CM
	PROJECT: First Street, Manchester - Block D	DRAWING NUMBER: 02	ISSUE: FINAL	
	TITLE: Topsoil Sampling Plan	© GRM Development Solutions Ltd © Crown Copyright. AL 100014100		

GRM Development Solutions Ltd
Tel: 01283 551 249
mail@grm-uk.comwww.grm-uk.com

APPENDIX F

GRM Development Solutions Limited, Laurus House, First Avenue, Centrum 100, Burton upon Trent, Staffs DE14 2WH
www.grm-uk.com | info@grm-uk.com | 01283 551249 Company No. 3099018 (England), VAT Reg. No. 658 1005 48

Block D



Image 1 Planting Beds



Image 2 Planting Beds



Image 3 Soft landscaping Areas



Image 4 TS1



Image 5 TS2



Image 6 TS3

	
Image 7 TS4	

APPENDIX G

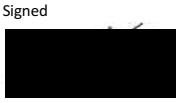
7 - 11 Harding Street
Leicester
LE1 4DH

GRM Development Solutions
Laurus House
First Avenue
Centrum 100
Burton Upon Trent
DE14 2WH

Analytical Test Report: P25/01084/GRM - 25-72341

Your Project Reference:	**First St, Manchester-Block D P10227**		
Your Order Number:	P10227	Samples Received / Instructed:	07/07/2025 / 07/07/2025
Report Issue Number:	1	Sample Tested:	07/07 to 17/07/2025
Samples Analysed:	4 sample(s)	Report issued:	17/07/2025

Signed



James Gane
Analytical Services Manager
CTS

Notes:

General

Please refer to Methodologies page for details pertaining to the analytical methods undertaken.

Samples will be retained for 14 days after issue of this report with the exception of the asbestos test portion which is held for 6 months unless otherwise requested.

Moisture Content was determined in accordance with CTS method statement MS - CL - Sample Prep, oven dried at <30˚C.

Moisture Content is reported as a percentage of the dry mass of soil, this calculation is in accordance with BS1377, Part 2, 1990, Clause 3.2

Stone Content was determined in accordance with CTS method statement MS - CL - Sample Prep and refers to the percentage of stones retained on a 10mm BS test sieve.

Where specification limits are included these are for guidance only. Where a measured value has been highlighted this is not implying acceptance or failure and certainty of measurement values have not been taken into account.

Uncertainty of measurement values are available on request.

Samples were supplied by customer, results apply to the samples as received.

Asbestos

Please note: Where futher analaysis is required samples identified as containing asbestos are screened and tested on an as recevied basis. No correction is made for moisture content and other than the asbestos test(s) these results are not covered by our accrediation

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation

Deviating Samples

On receipt samples are compared against our sample holding and handling protocols, where any deviations have been noted these are reported on our deviating sample page (if present)

Accreditation Key

This report shall not be reproduce except in full

UKAS = UKAS Accreditation, MCERTS = MCERTS Accreditation, u = Unaccredited, subUKAS - Subcontracted to a laboratory UKAS accredited for this test, subMCERTS - Subcontracted to a laboratory MCERTS accredited for this test

MCERTS Accreditation only covers the SAND, CLAY and LOAM matrices

UKAS accreditation on waters only covers the Ground water and Surface water matrices

Date of Issue: 21.05.25

Issued by: J. Gane

Issue No: 4

Rev No: 27

7 - 11 Harding Street
Leicester
LE1 4DH

P25/01084/GRM - 25-72341

Project Reference - First St, Manchester-Block D P10227

Analytical Test Results - Solid

Lab Reference			541143	541144	541145	541146
Client Sample ID			TS1	TS2	TS3	TS4
Client Sample Location			-	-	-	-
Client Sample Type			ES	ES	ES	-
Client Sample Number			-	-	-	-
Depth - Top (m)			0.10	0.10	0.10	0.10
Depth - Bottom (m)			0.10	0.10	0.10	0.10
Date of Sampling			04/07/2025	04/07/2025	04/07/2025	04/07/2025
Time of Sampling			-	-	-	-
Sample Matrix			Loam	Other	Loam	Other
Determinant	**Units**	**Accreditation**				
Arsenic	(mg/kg)	MCERTS	< 10	< 10	< 10	< 10
Cadmium	(mg/kg)	MCERTS	0.9	0.6	0.5	0.8
Chromium (Total)	(mg/kg)	UKAS	13	5.4	9.7	11
Copper	(mg/kg)	MCERTS	53	25	26	24
Lead	(mg/kg)	MCERTS	77	87	50	82
Mercury	(mg/kg)	UKAS	< 2.5	< 2.5	< 2.5	< 2.5
Nickel	(mg/kg)	MCERTS	38	14	17	18
Selenium	(mg/kg)	u	< 8.0	< 8.0	< 8.0	< 8.0
Zinc	(mg/kg)	MCERTS	130	88	68	72
Total Phenols	(mg/kg)	u	< 1.0	< 1.0	< 1.0	< 1.0
Cyanide (Total)	(mg/kg)	u	< 1.0	< 1.0	< 1.0	< 1.0
Chromium (Hexavalent)	(mg/kg)	u	< 1.0	< 1.0	< 1.0	< 1.0
pH	pH Units	MCERTS	7.8	7.9	8.0	7.6
Sulphate (Water soluble as SO_4)	(mg/l)	u	89	90	39	220
Acenaphthene	(mg/kg)	MCERTS	0.08	< 0.02	< 0.02	< 0.02
Acenaphthylene	(mg/kg)	UKAS	< 0.02	< 0.02	< 0.02	< 0.02
Anthracene	(mg/kg)	UKAS	0.06	0.08	0.05	0.04
Benzo (a) anthracene	(mg/kg)	MCERTS	0.25	0.27	0.25	0.18
Benzo (a) pyrene	(mg/kg)	MCERTS	0.23	0.36	0.22	0.19
Benzo (b) fluoranthene	(mg/kg)	MCERTS	0.40	0.53	0.33	0.31
Benzo (g, h, i) perylene	(mg/kg)	MCERTS	0.19	0.28	0.14	0.14
Benzo (k) fluoranthene	(mg/kg)	MCERTS	0.14	0.17	0.12	0.10
Chrysene	(mg/kg)	MCERTS	0.30	0.32	0.26	0.22
Dibenzo (a,h) anthracene	(mg/kg)	MCERTS	0.04	0.07	0.04	0.03
Fluoranthene	(mg/kg)	MCERTS	0.63	0.47	0.48	0.31
Fluorene	(mg/kg)	MCERTS	< 0.02	< 0.02	< 0.02	< 0.02
Indeno (1, 2, 3,-cd) pyrene	(mg/kg)	MCERTS	0.18	0.27	0.13	0.13
Naphthalene	(mg/kg)	MCERTS	< 0.02	< 0.02	< 0.02	< 0.02
Phenanthrene	(mg/kg)	MCERTS	0.13	0.21	0.17	0.13
Pyrene	(mg/kg)	MCERTS	0.52	0.44	0.43	0.26
Total PAH (Sum of USEPA 16)	(mg/kg)	UKAS	3.2	3.6	2.7	2.1
SOM (via TOC)	(%)	UKAS	16	4.4	9.0	4.6
Asbestos	-	UKAS	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

7 - 11 Harding Street
Leicester
LE1 4DH

P25/01084/GRM - 25-72341

Project Reference - First St, Manchester-Block D P10227

Analytical Test Results - VPH / EPH

Lab Reference			541143	541144	541145	541146
Client Sample ID			TS1	TS2	TS3	TS4
Client Sample Location			-	-	-	-
Client Sample Type			ES	ES	ES	-
Client Sample Number			-	-	-	-
Depth - Top (m)			0.10	0.10	0.10	0.10
Depth - Bottom (m)			0.10	0.10	0.10	0.10
Date of Sampling			04/07/2025	04/07/2025	04/07/2025	04/07/2025
Time of Sampling			-	-	-	-
Sample Matrix			Loam	Other	Loam	Other
Determinant	**Units**	**Accreditation**				
Benzene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.01	0.08
Ethylbenzene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.01	< 0.01
m&p Xylene	(mg/kg)	MCERTS	< 0.02	< 0.02	< 0.02	< 0.02
o-Xylene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.01	< 0.01
MTBE	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C_5 to C_6 [HS_MS_1D_AL]	(mg/kg)	MCERTS	< 0.06	< 0.06	< 0.06	< 0.06
Aliphatic >C_6 to C_8 [HS_MS_1D_AL]	(mg/kg)	MCERTS	0.10	< 0.06	< 0.06	0.10
Aliphatic >C_8 to C_{10} [HS_MS_1D_AL]	(mg/kg)	MCERTS	< 0.06	< 0.06	< 0.06	< 0.06
Aliphatic >C_{10} to C_{12} [EH_2D_AL]	(mg/kg)	MCERTS	1.1	1.2	1.7	1.3
Aliphatic >C_{12} to C_{16} [EH_2D_AL]	(mg/kg)	MCERTS	3.2	2.7	3.1	2.9
Aliphatic >C_{16} to C_{21} [EH_2D_AL]	(mg/kg)	MCERTS	19	9.4	9.5	27
Aliphatic >C_{21} to C_{35} [EH_2D_AL]	(mg/kg)	MCERTS	56	47	48	63
Aliphatic >C_{35} to C_{40} [EH_2D_AL]	(mg/kg)	MCERTS	11	9.4	7.9	8.7
Aliphatic >C_{35} to C_{44} [EH_2D_AL]	(mg/kg)	u	12	11	9.1	10
Aromatic >C_5 to C_7 [HS_MS_1D_AR]	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C_7 to C_8 [HS_MS_1D_AR]	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.01	0.08
Aromatic >C_8 to C_{10} [HS_MS_1D_AR]	(mg/kg)	MCERTS	< 0.06	< 0.06	< 0.06	< 0.06
Aromatic >C_{10} to C_{12} [EH_2D_AR]	(mg/kg)	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic >C_{12} to C_{16} [EH_2D_AR]	(mg/kg)	MCERTS	4.0	1.3	2.6	1.5
Aromatic >C_{16} to C_{21} [EH_2D_AR]	(mg/kg)	MCERTS	14	5.6	12	5.4
Aromatic >C_{21} to C_{35} [EH_2D_AR]	(mg/kg)	MCERTS	160	61	110	110
Aromatic >C_{35} to C_{40} [EH_2D_AR]	(mg/kg)	MCERTS	36	20	26	21
Aromatic >C_{35} to C_{44} [EH_2D_AR]	(mg/kg)	u	41	25	29	24
Total >C_5 to C_{35} [EH_2D+HS_1D_Total]	(mg/kg)	MCERTS	250	130	190	210
Total >C_5 to C_{40} [EH_2D+HS_1D_Total]	(mg/kg)	MCERTS	300	160	220	240

7 - 11 Harding Street
Leicester
LE1 4DH

P25/01084/GRM - 25-72341

Project Reference - First St, Manchester-Block D P10227

Sample Descriptions

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Description	Moisture Content (%)	Stone Content (%)	Passing 2mm test sieve (%)
541143	TS1	-	ES	-	Dark brown gravelly clayey silty loam with frequent organic matter	10	< 0.1	95
541144	TS2	-	ES	-	Dark brown clayey silt with rare organic matter	17	5.8	91
541145	TS3	-	ES	-	Dark brown gravelly clayey silty loam with occasional organic matter	29	< 0.1	91
541146	TS4	-	-	-	Dark brown clayey silt with rare organic matter	14	1.8	92

7 - 11 Harding Street
Leicester
LE1 4DH

P25/01084/GRM - 25-72341

Project Reference - First St, Manchester-Block D P10227

Sample Comments

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Comments
541143	TS1	-	ES	-	VPH/BTEX - Sample taken from container with headspace.
541144	TS2	-	ES	-	VPH/BTEX - Sample taken from container with headspace.
541145	TS3	-	ES	-	
541146	TS4	-	-	-	VPH/BTEX - Sample taken from container with headspace.

7 - 11 Harding Street
Leicester
LE1 4DH

P25/01084/GRM - 25-72341

Project Reference - First St, Manchester-Block D P10227

Analysis Methodologies

Test Code	Test Name / Reference	Sample condition for analysis	Sample Preparation	Test Details
ANIONSS	MS - CL - Anions by Aquakem (2:1Extract)	Oven dried	Passing 2mm test sieve	Determination of Anions (inc Sulphate, chloride etc.) in soils by Aquakem. Analysis is based on a 2:1 water to soil extraction ratio
ICPMETS	MS - CL - ICP Metals	Air dried	Passing 10mm test sieve	Determination of metals in soils via ICP
PHS	MS - CL - pH in Soils	As received	Passing 10mm test sieve	Determination of pH in soils using a pH probe (using a 1:3 soil to water extraction)
PAHASRDS	MS - CL - PAH (As Received)	As received	Passing 10mm test sieve	Determination of Polyaromatic hydrocarbons in soil via GC-MS
TOCS	MS - CL - TOC Eltra	Air Dried	Passing 10mm test sieve	Determination of Total Organic Carbon in soils
GCXGCS	MS - CL - TPH & EPH by GCXGC	As received	Passing 10mm test sieve	Determination of TPH and EPH in soils via GCxGC-FID
CWGS	Calculation from VPH-S and EPH-S	As received	Passing 10mm test sieve	Determination of TPH CWG (Volatile Petroleum Hydrocarbons and Extractable Petroleum Hydrocarbons) in soils via Headspace-GC-MS and GC-GC-FID respectively
VPHS	MS - CL - VPH	As received	Passing 10mm test sieve	Determination of VPH in soils via Headspace-GC-MS
ASB	MS - AS - Asbestos	-	-	Fibre identification is in accordance with in house documented methods which are based on the procedure documented in the HSE Document HSG 248 "Asbestos: The analysts guide for sampling, analysis and clearance procedures"
SAMPLEPREP	MS - CL - Sample Preparation	-	-	Preparation of samples (including determination of moisture content) to allow for subsequent analysis
SUBSKAS	Subcontract - Phenol & Cyanide & Cr (VI)	-	-	Subcontract testing

7 - 11 Harding Street
Leicester
LE1 4DH

P25/01084/GRM - 25-72341

Project Reference - First St, Manchester-Block D P10227

HWOL TPH Acronym Index

Acronym	Description
HS	Headspace Analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
Total	Aliphatics and Aromatics
AL	Aliphatics Only
AR	Aromatics Only
2D	GC-GC - Double Coil Gas Chromatography
#1	EH_Total but with humics mathmatically subtracted
#2	EH_Total but with fatty acids mathmatically subtracted
_	Operator - underscore to separate acronyms (except for +)
+	Operator to indicate cumlative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry



GRM

We understand land

GRM provide specialist ground, environmental, structural and design services for landowners and developers across the UK.

Our experience spans a wide range of sectors including private residential, social housing, healthcare, education, commercial, and industrial. Our sole aim is to maximise the potential of the site and thereby the commercial return for our clients.

Land Appraisal

Phase I Desk Studies | Phase II Site Investigations | Soakaway Testing
Environmental Impact Assessments & Reports | Due Diligence Audits

Environmental

Preliminary Risk Assessments | Detailed Quantitative Risk Assessments
Ground Gas Assessments | Material Management Plans
Remediation Strategies & Validation | Waste Classification Assessments

Mining

Coal Mining Risk Assessments | Coal Mining Investigations | Treatment of Mine Workings | Mine Shafts | Subsidence | Mineral Resource Assessments

Geotechnical

Geotechnical Investigations | Earthworks | Slope Stability
Retaining Wall Design | Ground Stability | Vibration Assessments
Value Engineering | Settlement Analysis

Site Services

Foundation Inspections | Gas Membrane Inspections
Remediation Inspections | Structural Inspections

GRM are proud to have provided services for a wide range of clients including

Bellway Homes | Vistry | Taylor Wimpey | Persimmon Homes | Barratt Redrow
NHS Trusts | Local Authorities | Severn Trent | VINCI | Tilbury Douglas
MOD | Structural and Civil Engineers

We also work with key partners to deliver a range of other support services and surveys including topographical, ecology, tree, archaeological, flood risk, and utilities.

Please contact us for an informal discussion on how we can save both time and money on your development project:

www.grm-uk.com | 01283 551249 | info@grm-uk.com