The Hazardous Waste Regulations 2005
Consignment Note

LAR The Asbestos Specialists

PRODUCER'S / HOLDER'S / CONSIGNOR'S COPY (delete as appropriate)

1 Consignment note code: larancl/asb05

2 The waste described below is to be moved from (name, address, postcode, telephone, e-mail, facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

3 Premises code (where applicable): laranc

4 The waste will be taken to (name, address and postcode):
Dunton Technologies Limited, Horsley Fields Treatment Centre, Union Mill Street, Wolverhampton WV1 3DW
Telephone 0121 356 4360

5 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

PART B Description of the waste

If continuation sheet used, tick here ☐

1 The process giving rise to the waste was:
Excavation & Site Clearance

2 SIC for the process giving rise to the waste 43.11/

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	List of Wastes (EWC code) (6 digits)	Quantity (kg)	The chemical/biological components of the waste and their concentrations are: Component	Concentration (% or mg/kg)	Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
Soils & Stones Containing Hazardous Substances	170503	18000kg	Asbestos	>1%	Solid	HP7	1 x Eight Wheel Tipper Lorry

The information below is to be completed for each EWC identified

EWC code	Packing group(s)	UN identification number(s)	Proper shipping name(s)	UN class(es)	Special handling requirements
170503	Non Dangerous For Road Transport	N/A	N/A	N/A	N/A

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If a schedule of carriers is attached, tick here: ☐)

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.

1 Driver name: ASC Contracts Limited - Darren
On behalf of (name, address, postcode, telephone, e-mail, facsimile):
ASC Contracts Limited,Canklow Road,Rotherham S60 2JG - 01709369093

2 Carrier registration no./reason for exemption:
CBDU 67449

3 Vehicle registration no. (or mode of transport if not road): MX18 EWN

Driver Signature [redacted]

Date 18/07/23 Time

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 special handling requirements.

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

1 Consignor name LAR Limited - Steve Hannah
On behalf of (name, address, postcode, telephone, e-mail , facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

Signature [redacted]

Date 18072023 Time

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)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170503	18540	✓	D9

1 I received this waste at the address given in A4 on Date 18072023 Time 1345

2 Vehicle registration no. (or mode of transport if not road): MX18EWN

3 Where waste is rejected please give details:

Name: [redacted]
On behalf of (name, address, postcode, telephone, e-mail, facsimile):
DUNTON TECHNOLOGIES
Restoring Our Environment
DUNTON TECHNOLOGIES
STATION HOUSE
NORTHGATE, ALDRIDGE
WALSALL WS9 8TH UK

I certify that waste management licence/permit/authorised exemption no(s).
EPL/BP3334DD
authorises the management of the waste described in B at the address given in A4.

Signature ✓

Date 18072023 Time 1354

The Hazardous Waste Regulations 2005
Consignment Note

PRODUCER'S / HOLDER'S / CONSIGNOR'S COPY (delete as appropriate)

1 Consignment note code: larancl/asb01

2 The waste described below is to be moved from (name, address, postcode, telephone, e-mail, facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

3 Premises code (where applicable): laranc

4 The waste will be taken to (name, address and postcode):
Dunton Technologies Limited, Horsley Fields Treatment Centre, Union Mill Street, Wolverhampton WV1 3DW
Telephone 0121 356 4360

5 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

PART B Description of the waste

If continuation sheet used, tick here: ☐

1 The process giving rise to the waste was:
Excavation & Site Clearance

2 SIC for the process giving rise to the waste 43.11/

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	List of Wastes (EWC code) (6 digits)	Quantity (kg)	The chemical/biological components of the waste and their concentrations are: Component	Concentration (% or mg/kg)	Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
Soils & Stones Containing	170503	18000kg	Asbestos	>1%	Solid	HP7	1 x Eight Wheel
Hazardous Substances							Tipper Lorry

The information below is to be completed for each EWC identified

EWC code	Packing group(s)	UN identification number(s)	Proper shipping name(s)	UN class(es)	Special handling requirements
170503	Non Dangerous For Road Transport	N/A	N/A	N/A	N/A

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If a schedule of carriers is attached, tick here: ☐)

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.

1 Driver name: ASC Contracts Limited -
On behalf of (name, address, postcode, telephone, e-mail, facsimile):
ASC Contracts Limited,Canklow Road.Rotherham S60 2JG - 01709369093

2 Carrier registration no./reason for exemption: BX70HTG
CBDU 67449

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

Driver Signature T. Howley

Date 18/7/2023 Time 1030

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 special handling requirements.

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

1 Consignor name LAR Limited - Steve Hannah
On behalf of (name, address, postcode, telephone, e-mail , facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

Signature [redacted]

Date 18/7/2023 Time

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)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170503	17240	✓	D9

1 I received this waste at the address given in A4 on Date 18/7/2023 Time 1314

2 Vehicle registration no. (or mode of transport if not road): BX70 HTG

Name: V. WESTON
On behalf of (name, address, postcode, telephone, e-mail, facsimile):

3 Where waste is rejected please give details:

I certify that waste management licence/permit/authorised exemption no(s).
EPR BP3331DD
authorises the management of the waste described in B at the address given in A4.

Signature [redacted]

Date 18/7/2023 Time 1321

Dunton TECHNOLOGIES Restoring Our Environment
DUNTON TECHNOLOGIES
CRITERION HOUSE
HEATH GATE, ALDRIDGE
WEST MIDLANDS WS9 8TH, UK

The Hazardous Waste Regulations 2005
Consignment Note

LAR The Abatement Specialists

PRODUCER'S / HOLDER'S / CONSIGNOR'S COPY (delete as appropriate)

1 Consignment note code: larancl/asb03

2 The waste described below is to be moved from (name, address, postcode, telephone, e-mail, facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

3 Premises code (where applicable): laranc

4 The waste will be taken to (name, address and postcode):
Dunton Technologies Limited, Horsley Fields Treatment Centre, Union Mill Street, Wolverhampton WV1 3DW
Telephone 0121 356 4360

5 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

PART B Description of the waste

If continuation sheet used, tick here ☐

1 The process giving rise to the waste was:
Excavation & Site Clearance

2 SIC for the process giving rise to the waste 43.11/

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	List of Wastes (EWC code) (6 digits)	Quantity (kg)	The chemical/biological components of the waste and their concentrations are: Component	Concentration (% or mg/kg)	Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
Soils & Stones Containing	170503	18000kg	Asbestos	>1%	Solid	HP7	1 x Eight Wheel
Hazardous Substances							Tipper Lorry

The information below is to be completed for each EWC identified

EWC code	Packing group(s)	UN identification number(s)	Proper shipping name(s)	UN class(es)	Special handling requirements
170503	Non Dangerous For	N/A	N/A	N/A	N/A
	Road Transport				

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If a schedule of carriers is attached, tick here: ☐)

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.

1 Driver name: ASC Contracts Limited -
On behalf of (name, address, postcode, telephone, e-mail, facsimile):
ASC Contracts Limited,Canklow Road,Rotherham S60 2JG - 01709369093

2 Carrier registration no./reason for exemption:
CBDU 67449

3 Vehicle registration no. (or mode of transport, if not road):
Driver Signature BX70 HTG [redacted]

Date 17072023 Time 1405

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 special handling requirements.

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

1 Consignor name LAR Limited - Steve Hannah
On behalf of (name, address, postcode, telephone, e-mail , facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

Signature [redacted]

Date 17072023 Time 1405

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)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170503	16920	✓	D9

1 I received this waste at the address given in A4 on Date 18072023 Time 0811

2 Vehicle registration no. (or mode of transport if not road):
BX70 HTG

3 Where waste is rejected please give details:

I certify that waste management licence/permit/authorised exemption no(s).
EPR/BP3334DD
authorises the management of the waste described in B at the address given in A4.

Name: [redacted]
On behalf of (name, address, postcode, telephone, e-mail, facsimile):
Dunton TECHNOLOGIES Restoring Our Environment
DUNTON TECHNOLOGIES
SOUTHON HOUSE
NORTHGATE, ALDRIDGE
WEST MIDLANDS WS9 8TH. UK

Signature ✓

Date 18072023 Time 0821

The Hazardous Waste Regulations 2005
Consignment Note

LAR
The Abatement Specialists

PRODUCER'S / HOLDER'S / CONSIGNOR'S COPY (delete as appropriate)

1 Consignment note code: laranc/asb02

2 The waste described below is to be moved from (name, address, postcode, telephone, e-mail, facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

3 Premises code (where applicable): laranc

4 The waste will be taken to (name, address and postcode):
Dunton Technologies Limited, Horsley Fields Treatment Centre, Union Mill Street, Wolverhampton WV1 3DW
Telephone 0121 356 4360

5 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

PART B Description of the waste

If continuation sheet used, tick here ☐

1 The process giving rise to the waste was:
Excavation & Site Clearance

2 SIC for the process giving rise to the waste 43.11/

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	List of Wastes (EWC code) (6 digits)	Quantity (kg)	The chemical/biological components of the waste and their concentrations are: Component	Concentration (% or mg/kg)	Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
Soils & Stones Containing	170503	18000kg	Asbestos	>1%	Solid	HP7	1 x Eight Wheel
Hazardous Substances							Tipper Lorry

The information below is to be completed for each EWC identified

EWC code	Packing group(s)	UN identification number(s)	Proper shipping name(s)	UN class(es)	Special handling requirements
170503	Non Dangerous For	N/A	N/A	N/A	N/A
	Road Transport				

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If a schedule of carriers is attached, tick here: ☐)

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.

1 Driver name: ASC Contracts Limited - JOHN RICHARDSON
On behalf of (name, address, postcode, telephone, e-mail, facsimile):
ASC Contracts Limited,Canklow Road,Rotherham S60 2JG - 01709369093

2 Carrier registration no./reason for exemption: YW16WHK
CBDU 67449

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

Driver Signature [redacted]

Date 17072023 Time 1345

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 special handling requirements.

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

1 Consignor name LAR Limited - Steve Hannah
On behalf of (name, address, postcode, telephone, e-mail , facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

Signature [redacted]

Date 17072023 Time 1345

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)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170503	18'200	✓	D9

1 I received this waste at the address given in A4 on Date 18072023 Time 0809

2 Vehicle registration no. (or mode of transport if not road): YW16 WHK

3 Where waste is rejected please give details:

I certify that waste management licence/permit/authorised exemption no(s).
EPR/BP3334DD
authorises the management of the waste described in B at the address given in A4.

Name: [redacted]
On behalf of (name, address, postcode, telephone, e-mail, facsimile):
DUNTON TECHNOLOGIES
Restoring Our Environment
DUNTON TECHNOLOGIES
CRITERION HOUSE
HORSLEY FIELDS ALDRIDGE
WEST MIDLANDS WS9 8TH UK

Signature [redacted]

Date 18072023 Time 0817

The Hazardous Waste Regulations 2005
Consignment Note

LAR The Abatement Specialists

PRODUCER'S / HOLDER'S / CONSIGNOR'S COPY (delete as appropriate)

1 Consignment note code: larancl/asb01

2 The waste described below is to be moved from (name, address, postcode, telephone, e-mail, facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

3 Premises code (where applicable): laranc

4 The waste will be taken to (name, address and postcode):
Dunton Technologies Limited, Horsley Fields Treatment Centre, Union Mill Street, Wolverhampton WV1 3DW
Telephone 0121 356 4360

5 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

PART B Description of the waste

If continuation sheet used, tick here ☐

1 The process giving rise to the waste was:
Excavation & Site Clearance

2 SIC for the process giving rise to the waste 43.11/

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	List of Wastes (EWC code) (6 digits)	Quantity (kg)	The chemical/biological components of the waste and their concentrations are: Component	Concentration (% or mg/kg)	Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
Soils & Stones Containing Hazardous Substances	170503	18000kg	Asbestos	>1%	Solid	HP7	1 x Eight Wheel Tipper Lorry

The information below is to be completed for each EWC identified

EWC code	Packing group(s)	UN identification number(s)	Proper shipping name(s)	UN class(es)	Special handling requirements
170503	Non Dangerous For Road Transport	N/A	N/A	N/A	N/A

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If a schedule of carriers is attached, tick here: ☐)

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.

1 Driver name: ASC Contracts Limited - CLIVE/Darren
On behalf of (name, address, postcode, telephone, e-mail, facsimile):
ASC Contracts Limited,Canklow Road,Rotherham S60 2JG - 01709369093

2 Carrier registration no./reason for exemption:
CBDU 67449

3 Vehicle registration no. (or mode of transport, if not road): MX18EWN

Driver Signature [redacted]

Date 17/07/ Time 1205

PART D Consignor's certificate

I certify that the infirmation 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 special handling requirements.

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

1 Consignor name LAR Limited - Steve Hannah
On behalf of (name, address, postcode, telephone, e-mail , facsimile):
LAR Limited c/o Wates Limited, Rodney Street, Ancoats, Manchester M4 6JJ. Telephone 0161 947 9628

Signature

Date Time

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)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170503	19'000	✓	D9

1 I received this waste at the address given in A4 on Date 18/07/2023 Time 0818

2 Vehicle registration no. (or mode of transport if not road): MX18EWN

3 Where waste is rejected please give details:

I certify that waste management licence/permit/authorised exemption no(s). EPR/BP3351DJ authorises the management of the waste described in B at the address given in A4.

Name: [redacted]
On behalf of (name, address, postcode, telephone, e-mail, facsimile):

Dunton
Restoring Our Environment
TECHNOLOGIES
ON HOUSE
TE, ALDRIDGE
WEST MIDLANDS WS9 8TH, UK

Signature [redacted]

Date 18/07/2023 Time 0818

APPENDIX 4

- Clean Cover Validation
- Imported soils third-party laboratory certificates
- Merebrook imported soil laboratory testing certificates
- Soil Analysis Summary Sheet
- Merebrook stockpiled soils Photographic Record Appendix
- Depth check validation Photographic Record Appendix
- Clean cover depth check Location Plan

TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

Tarmac Topscape

Mr Nathan Birchenall
Tarmac Topscape
Manchester Road
Congleton
Cheshire, CW12 2LU

11th March 2024
Our Ref: TOHA/24/1276/2/SS
Your Ref: PO 2002746077

Dear Sirs

Subsoil Analysis Report: Crown Farm Subsoil

We have completed the analysis of the soil sample recently submitted, referenced *Crown Farm Subsoil,* and have pleasure reporting our findings.

The purpose of the analysis was to determine the suitability of the sample for use as subsoil in 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 Subsoil *(BS8601:2013 – Specification for subsoil and requirements for use – Table 1, Multipurpose Subsoil).*

This report presents the results of analysis for the sample submitted to our office, and it should be considered 'indicative' of the subsoil 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 subsoil has left the Tarmac Topscape site.

SAMPLE EXAMINATION

The sample was described as a reddish brown (Munsell Colour 5YR 4/4), slightly moist, friable, very slightly calcareous SAND with a single grain structure. The sample was slightly stony with stones up to 45mm in diameter. No unusual odours, deleterious materials, roots or rhizomes of pernicious weeds were observed.

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:

- detailed particle size analysis (% 5 sands, silt, clay);
- stone content (2-20mm, 20-75mm, >75mm);
- pH and electrical conductivity values;
- exchangeable sodium percentage;
- organic matter content;
- heavy metals (As, B, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn);
- total cyanide and total (mono) phenols;
- speciated PAHs (US EPA16 suite);
- aromatic and aliphatic TPH (C5-C35 banding);
- benzene, toluene, ethylbenzene, xylene (BTEX);
- asbestos screen.

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

RESULTS OF ANALYSIS

Detailed Particle Size Analysis and Stone Content

The sample fell into the *sand* texture class, which falls slightly outside of the range indicated in *BS8601:2013 – Figure 1*. Further detailed particle size analysis indicates a reasonably broad particle size distribution, with relatively equal proportions of *medium sand* (0.25-0.50mm), *fine sand* (0.15-0.25mm) and *very fine sand* (0.05-0.15mm). This could increase the risk of particle interpacking once the material is compacted. In this situation, finer particles fill the voids between the larger particles, thereby reducing drainage and aeration. If this material is to be used as subsoil in general landscape applications, only species tolerant of heavy, moisture retentive subsoils should be used for planting.

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

pH and Electrical Conductivity Values

The sample was strongly alkaline in reaction (pH 8.5). This pH value would be considered suitable as subsoil 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 low, which indicates that soluble salts were not present at levels that would be harmful to plants.

The electrical conductivity value by $CaSO_4$ extract (*BS8601* requirement) fell below the maximum specified value (2800 µS/cm) given in *BS8601:2013 – Table 1*.

Organic Matter Content

The organic matter content was low (< 0.5%) and compliant with *BS8601:2013 – Table 1*.

Tarmac Topscape

Potential Contaminants

With reference to *BS8601:2013 – Section 4.2*: *Note 2*, there is a requirement to confirm levels of potential contaminants in relation to the subsoil'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 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* (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.

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 *BS8601:2013 – Table 1*.

CONCLUSION

The purpose of the analysis was to determine the suitability of the sample for use as subsoil in 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 Subsoil *(BS8601:2013 – Specification for subsoil and requirements for use – Table 1, Multipurpose Subsoil).*

From the soil examination and subsequent laboratory analysis, the sample was described as a strongly alkaline, non-saline, very slightly calcareous sand with a single grain structure and a low stone content. The organic matter content was low and consistent with that of subsoil. Of the potential contaminants determined, none was found at levels that exceeded their guideline values.

To conclude, based on our findings, the soil represented by this sample would be considered suitable as subsoil for general landscape purposes (trees, shrubs and amenity grass), provided plant species with a wide pH tolerance or those known to prefer alkaline soils are selected and the physical condition of the soil is satisfactory.

The sample was largely compliant with the requirements of the British Standard for Subsoil *(BS8601:2013 – Specification for subsoil and requirements for use – Table 1, Multipurpose Subsoil)* with the exception of the total sand content.

On this occasion, this non-compliance is considered minor when reviewed in the context of all the other results.

Soil Handling Recommendations

Reference should be made to Section 6.0 of *BS8601:2013* with regard to the handling and management of the subsoil:

"Soils generally lose strength and become less resistant to damage as they become wetter; therefore, it is essential that they are stripped, handled and trafficked only in the appropriate conditions of weather and soil moisture, and with suitable machinery. If sustained heavy rainfall (e.g. >10 mm in 24 h) occurs during soil stripping operations, work should be suspended and not restarted until the ground has had at least one dry day or until a suitable moisture content has been reached. A soil can be considered to have a suitable moisture content for stripping and handling if the whole thickness of the subsoil layer being stripped and/or handled is at a moisture content below the plastic limit as determined in accordance with BS 1377-2:1990 (incorporating Amendment No. 1).

Machinery should be selected and routed to minimise soil compaction."

Further guidance is provided in Clauses 6.1–6.5

Tarmac Topscape

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





Zoe Duffin
MBiol
Graduate Soil Scientist

Matthew Heins
BSc (Hons) MISoilSci
Senior Soil Scientist

For & on behalf of Tim O'Hare Associates LLP

Tarmac Topscape

TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

Client:	**Tarmac Topscape**
Project	**Crown Farm**
Job:	**Subsoil Analysis - BS8601:2013**
Date:	**11/03/2024**
Job Ref No:	**TOHA/24/1276/2/SS**

Sample Reference			**Crown Farm Subsoil**
		Accreditation	
Clay (<0.002mm)	%	UKAS	4
Silt (0.002-0.063mm)	%	UKAS	7
Very Fine Sand (0.063-0.15mm)	%	UKAS	21
Fine Sand (0.15-0.25mm)	%	UKAS	32
Medium Sand (0.25-0.50mm)	%	UKAS	33
Coarse Sand (0.50-1.0mm)	%	UKAS	3
Very Coarse Sand (1.0-2.0mm)	%	UKAS	1
Total Sand (0.063-2.0mm)	%	UKAS	89
Texture Class (UK Classification)	--	UKAS	S
Stones (2-20mm)	% DW	GLP	1
Stones (20-75mm)	% DW	GLP	8
Stones (>75mm)	% DW	GLP	0
pH Value (1:2.5 water extract)	units	UKAS	8.5
Electrical Conductivity (1:2.5 water extract)	uS/cm	UKAS	159
Electrical Conductivity (1:2 $CaSO_4$ extract)	uS/cm	UKAS	2044
Organic Matter (LOI)	%	UKAS	< 0.5
Exchangeable Sodium Percentage	%	UKAS	0.4
Total Arsenic (As)	mg/kg	MCERTS	3
Total Cadmium (Cd)	mg/kg	MCERTS	< 0.2
Total Chromium (Cr)	mg/kg	MCERTS	12
Hexavalent Chromium (Cr VI)	mg/kg	MCERTS	< 1.8
Total Copper (Cu)	mg/kg	MCERTS	52
Total Lead (Pb)	mg/kg	MCERTS	6
Total Mercury (Hg)	mg/kg	MCERTS	< 0.3
Total Nickel (Ni)	mg/kg	MCERTS	13
Total Selenium (Se)	mg/kg	MCERTS	< 1.0
Total Zinc (Zn)	mg/kg	MCERTS	26
Water Soluble Boron (B)	mg/kg	MCERTS	< 0.2
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	< 0.020
Aliphatic TPH >C6 - C8	mg/kg	MCERTS	< 0.020
Aliphatic TPH >C8 - C10	mg/kg	MCERTS	< 0.050
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	< 0.010
Aromatic TPH >C7 - C8	mg/kg	MCERTS	< 0.010
Aromatic TPH >C8 - C10	mg/kg	MCERTS	< 0.050
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	< 0.005
Toluene	mg/kg	MCERTS	< 0.005
Ethylbenzene	mg/kg	MCERTS	< 0.005
p & m-oxylene	mg/kg	MCERTS	< 0.005
o-xylene	mg/kg	MCERTS	< 0.005
MTBE (Methyl Tertiary Butyl Ether)	mg/kg	MCERTS	< 0.005
Asbestos	--	ISO 17025	Not-detected

S = SAND

Visual Examination

The sample was described as a reddish brown (Munsell Colour 5YR 4/4), slightly moist, friable, very slightly calcareous SAND with a single grain structure. The sample was slightly stony with stones up to 45mm in diameter. No unusual odours, deleterious materials, roots or rhizomes of pernicious weeds were observed.

[redacted]

Zoe Duffin
MBiol
Graduate Soil Scientist

Tarmac Topscape

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

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TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

Tarmac Trading Limited

Mr Steve Pidcock
Tarmac Trading Limited
Crown Farm Quarry
Stoneyfold Lane
Oakmere
Nr Northwich
CW8 2JH

29th August 2024
Our Ref: TOHA/24/1518/SS
Your Ref: PO 2002847020

Dear Sirs

Topsoil Analysis Report: Crown Farm

We have completed the analysis of the soil sample recently submitted, referenced *Crown Farm 4:3 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 – 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 Tarmac Trading Limited site.

SAMPLE EXAMINATION

The sample was described as a brown (Munsell Colour 7.5YR 4/4), dry, friable, slightly calcareous SAND with a single grain structure. The sample was slightly stony and contained a low proportion of organic fines and occasional woody fragments. No unusual odours, deleterious materials, roots or rhizomes of pernicious weeds were observed.

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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, B, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn);
- total cyanide and total (mono) phenols;
- speciated PAHs (US EPA16 suite);
- aromatic and aliphatic TPH (C5-C35 banding);
- benzene, toluene, ethylbenzene, xylene (BTEX);
- asbestos screen.

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

RESULTS OF ANALYSIS

Detailed Particle Size Analysis and Stone Content

The sample fell into the *sand* texture class and the particle size distribution falls outside of the specified range indicated in *Figure 1* of *BS3882:2015*. Such soils typically have good aeration and drainage properties, but can possess reduced water and nutrient retention capacities.

However, further detailed particle size analysis revealed the sample to have a relatively narrow particle size distribution and large proportions of sand falling into the *fine sand* (0.15-0.25mm) and *medium sand* (0.25-0.50mm) class. This, in addition to the soil's organic matter content (5.3%), should offset the high sand content and provide a suitable growing medium for general landscape applications.

The sample was slightly stony 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 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 CaSO4 extract (3496 µS/cm - BS3882 requirement) slightly exceeded the maximum specified value (3300 µS/cm) given in BS3882:2015 – Table 1. Further testing of electrical conductivity by water extract indicates that excess soluble salts should not present a significant risk to plants.

Organic Matter and Fertility Status

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

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

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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 assessment 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* (C4SLs) *for Assessment of Land Affected by Contamination – Policy Companion Document* (2014).

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

Phytotoxic Contaminants

Of the phytotoxic (toxic to plants) contaminants determined (copper, nickel, zinc), none were 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 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 – Table 1, Multipurpose Topsoil).*

From the soil examination and subsequent laboratory analysis, the sample was described as a strongly alkaline, non-saline, slightly stony, slightly calcareous sand with a single grain structure. The sample contained sufficient reserves of 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 landscaping applications (trees, shrubs and amenity grass), provided species with a wide pH tolerance or those known to prefer alkaline soils are selected and the soil's physical condition is satisfactory.

The topsoil 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 elevated total sand content and electrical conductivity ($CaSO_4$) value. On this occasion, these non-compliances would be considered minor when reviewed in the content of all the other results.

RECOMMENDATIONS

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.*

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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





Ebony Gheorghe
BSc MSc
Soil Scientist

Rebecca Roberts
BSc MSc MISoilSci
Senior Soil Scientist

For & on behalf of Tim O'Hare Associates LLP

Tarmac Trading Limited

TIM O'HARE ASSOCIATES
SOIL & LANDSCAPE CONSULTANCY

Client:	**Tarmac Trading Limited**
Project:	**Crown Farm**
Job:	**Topsoil Analysis - BS3882:2015**
Date:	**28/08/2024**
Job Ref No:	**TOHA/24/1518/SS**

Sample Reference			**Crown Farm 4:3 Topsoil**
		Accreditation	
Clay (<0.002mm)	%	UKAS	1
Silt (0.002-0.05mm)	%	UKAS	3
Very Fine Sand (0.05-0.15mm)	%	UKAS	11
Fine Sand (0.15-0.25mm)	%	UKAS	31
Medium Sand (0.25-0.50mm)	%	UKAS	43
Coarse Sand (0.50-1.0mm)	%	UKAS	8
Very Coarse Sand (1.0-2.0mm)	%	UKAS	3
Total Sand (0.05-2.0mm)	%	UKAS	96
Texture Class (UK Classification)	--	UKAS	S
Stones (2-20mm)	% DW	GLP	3
Stones (20-50mm)	% DW	GLP	2
Stones (>50mm)	% DW	GLP	0
pH Value (1:2.5 water extract)	units	UKAS	8.1
Electrical Conductivity (1:2.5 water extract)	uS/cm	UKAS	1183
Electrical Conductivity (1:2 $CaSO_4$ extract)	uS/cm	UKAS	3496
Exchangeable Sodium Percentage	%	UKAS	6.7
Organic Matter (LOI)	%	UKAS	5.3
Total Nitrogen (Dumas)	%	UKAS	0.27
C : N Ratio	ratio	UKAS	11
Extractable Phosphorus	mg/l	UKAS	76
Extractable Potassium	mg/l	UKAS	1470
Extractable Magnesium	mg/l	UKAS	164
Total Arsenic (As)	mg/kg	MCERTS	3
Total Cadmium (Cd)	mg/kg	MCERTS	< 0.2
Total Chromium (Cr)	mg/kg	MCERTS	5
Hexavalent Chromium (Cr VI)	mg/kg	MCERTS	< 1.8
Total Copper (Cu)	mg/kg	MCERTS	9
Total Lead (Pb)	mg/kg	MCERTS	11
Total Mercury (Hg)	mg/kg	MCERTS	< 0.3
Total Nickel (Ni)	mg/kg	MCERTS	4
Total Selenium (Se)	mg/kg	MCERTS	< 1.0
Total Zinc (Zn)	mg/kg	MCERTS	26
Water Soluble Boron (B)	mg/kg	MCERTS	0.9
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	0.06
Fluorene	mg/kg	MCERTS	0.07
Phenanthrene	mg/kg	MCERTS	0.98
Anthracene	mg/kg	MCERTS	0.33
Fluoranthene	mg/kg	MCERTS	1.30
Pyrene	mg/kg	MCERTS	1.00
Benzo(a)anthracene	mg/kg	MCERTS	0.55
Chrysene	mg/kg	MCERTS	0.63
Benzo(b)fluoranthene	mg/kg	MCERTS	0.63
Benzo(k)fluoranthene	mg/kg	MCERTS	0.19
Benzo(a)pyrene	mg/kg	MCERTS	0.53
Indeno(1,2,3-cd)pyrene	mg/kg	MCERTS	0.27
Dibenzo(a,h)anthracene	mg/kg	MCERTS	< 0.05
Benzo(g,h,i)perylene	mg/kg	MCERTS	0.28
Total PAHs (sum USEPA16)	mg/kg	MCERTS	6.89
Aliphatic TPH >C5 - C6	mg/kg	MCERTS	< 0.010
Aliphatic TPH >C6 - C8	mg/kg	MCERTS	< 0.010
Aliphatic TPH >C8 - C10	mg/kg	MCERTS	< 0.010
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	< 0.010
Aromatic TPH >C7 - C8	mg/kg	MCERTS	< 0.010
Aromatic TPH >C8 - C10	mg/kg	MCERTS	< 0.020
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	< 0.005
Toluene	mg/kg	MCERTS	< 0.005
Ethylbenzene	mg/kg	MCERTS	< 0.005
o-xylene	mg/kg	MCERTS	< 0.005
p&m-xylene	mg/kg	MCERTS	< 0.005
MTBE (Methyl Tertiary Butyl Ether)	mg/kg	MCERTS	< 0.005
Asbestos	ND/D	ISO 17025	Not-detected

S = SAND

Visual Examination

The sample was described as a brown (Munsell Colour 7.5YR 4/4), dry, friable, slightly calcareous SAND with a single grain structure. The sample was slightly stony and contained a low proportion of organic fines and occasional woody fragments. No unusual odours, deleterious materials, roots or rhizomes of pernicious weeds were observed.

[redacted]

Ebony Gheorghe
BSc MSc
Soil Scientist

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

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armac Trading Limited

Freeland
HORTICULTURE LIMITED

Freeland Horticulture Ltd
Rosedale Nursery
College Road
Hextable
Kent BR8 7LT

Attention: Philippa Lambourne

Our Ref: SLC-1373-SA

11 February 2025

Dear Philippa

Topsoil Analysis Report: Astley, Greater Manchester Topsoil January 2025

We have completed the analysis of the topsoil sample recently taken from the above site and it has been forwarded to an approved laboratory for analysis and have the pleasure of reporting our findings. The purpose of the analysis was to determine the suitability of the topsoil for general landscaping purposes and its compliance with the current British Standard for topsoil (BS3882).

SOIL SAMPLING & EXAMINATION

At the time of our sampling visit the topsoil was stored in a stockpile. A series of 10 hand augered trial holes were constructed across the stockpile for the purpose of soil examination and sample collection. As the soil examination confirmed a consistent topsoil composition, the ten samples were combined together to form one composite sample for analysis purposes. The soil was described as dark brown, slightly moist and friable with a well-developed, fine to medium granular structure. The soil contained a low fraction of small stones and no deleterious materials (eg. building waste materials, glass, roots or rhizomes of pernicious weeds) or unusual odours (eg. hydrocarbons) were recorded.

LABORATORY ANALYSIS

The topsoil sample was submitted to a UKAS and MCERTS accredited laboratory for routine physical and chemical parameters to confirm the composition and fertility of the soil. The following parameters were determined:

- pH & electrical conductivity values;
- major plant nutrients (N, P, K, Mg) & organic matter content;
- particle size distribution and stone content;
- heavy metals & potentially toxic elements (As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn, B);
- sulphate, sulphur, sulphide;
- total cyanide and total (mono) phenols;
- speciated PAHs (US EPA16)
- banded aromatic and aliphatic petroleum hydrocarbons (C_5-C_{35}).
- Asbestos

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

COMMENTS

pH & Electrical Conductivity (salinity) Values

The sample was alkaline in nature (pH 8.5) with a pH value that would be considered suitable for general landscaping purposes.

The electrical conductivity (salinity) value using the soil:water extract was (1394µS/cm) indicating that soluble salts are not present at levels that would be harmful to plants.

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

Organic Matter & Nutrient Status

The sample was rich in organic matter and all major plant nutrients. No further additions of compost or fertiliser are required, or indeed recommended, for at least the first growing season.

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

Particle Size Distribution & Stone Content

The sample contained 80% sand and fell into the sandy loam texture class. This particle size distribution is considered suitable for a broad range of landscape applications, including tree and shrub planting, turfing and seeding.

The sample was Virtually free from stones of 50 mm and upwards in diameter and only contained a slight fraction of smaller stones (3.1%). As such, stones will not restrict the use of the soil for landscaping purposes.

Potential Contaminants

We are not aware of any specified contaminant levels set for the proposed end-use of this topsoil. This includes human health, environmental protection and metals considered toxic to plants. In the absence of any site-specific assessment criteria, the concentrations that affect human health have been compare with the 'residential with homegrown produce' land use in the Suitable For Use Levels presented in. 'The LQM/CIEH S4Uls' for Human Health Risk Assessmet (2015) and DEFRA SP1010: 'Development of Category 4 Screening Levels' for Assessment of Land Affected by Contamination – Policy Companion Document (2014).

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

CONCLUSION

The purpose of the analysis was to determine the suitability of the topsoil for general landscaping purposes. From the soil examination and laboratory analysis, the soil is described as an alkaline, non-saline, sandy loam. The organic matter and nutrient levels are acceptable, and no significant contamination was found with respect to the parameters determined. This soil would adhere to the current BS3882 specification for 'multipurpose grade'.

To conclude, based on our findings, the topsoil would be considered well-suited to general landscaping purposes provided the physical condition of the soil is maintained.

We hope this report meets with your approval and provides the necessary information. Please do not hesitate to contact the undersigned if you have any queries or comments.

George Longmuir MSc Soil Sci. M.I Soil Sci.

Freeland
HORTICULTURE LIMITED

Client	Freeland Horticulture Ltd
Job Name	Topsoil Analysis
Site	Astley, Greater Manchester
Month/Year	January 25
Our Ref	1373-SA
Date	11 February 2025

		Composite sample
pH Value & Salinity		
pH value (1:2.5 soil/water ext)	units	8.5
Electrical Conductivity (1:2.5 soil/water ext)	µS/cm	1394
Electrical Conductivity (1:2.5 soil/CaSO4 ext)	µS/cm	3113
Organic Matter & Nutrient Status		
Organic Matter (LOI)	%	7.8
Organic Carbon (Derived)	%	4.5
Total Nitrogen	%	0.608
Carbon:Nitrogen Ratio	:1	7.5
Available Phosphorus	mg/l	70.6
Available Potassium	mg/l	1395
Available Magnesium	mg/l	143
Particle Size Analysis & Stones		
Clay (<0.002mm)	%	8
Silt (0.063-0.002mm)	%	12
Sand (2.0-0.063mm)	%	80
Texture Class	UK Class	Sandy Loam
Stones 2-20mm	% by DW	3.1
Stones 20-50mm	% by DW	0.0
Stones >50mm	% by DW	0.0
Potential Contaminants		
Total Arsenic (As)	mg/kg	4.2
Total Cadmium (Cd)	mg/kg	0.14
Total Chromium (Cr)	mg/kg	15.3
Hexavalent Chromium (CR^{VI})	mg/kg	<0.2
Total Copper (Cu)	mg/kg	16.3
Total Lead (Pb)	mg/kg	33.0
Total Mercury (Hg)	mg/kg	0.20
Total Nickel (Ni)	mg/kg	<10
Total Selenium (Se)	mg/kg	0.13
Total Zinc (Zn)	mg/kg	49.6
Total Beryllium (Be)	mg/kg	<1
Total Barium (Ba)	mg/kg	54.3
Total Vanadium (V)	mg/kg	<10
Hot Water Soluble Boron (B)	mg/kg	1.8
Total Cyanide (CN)	mg/kg	<1
Elemental Sulphur (S)	mg/kg	54.3
Easily Liberated Sulphide (S^{2-})	mg/kg	<1
Water Soluble Sulphate (SO_4^{2-})	mg/l	131
Total Phenols Index	mg/kg	<1
Asbestos Screen	-	N.D.
Polyaromatic Hydrocarbons		
Naphthalene	mg/kg	0.1
Acenaphthylene	mg/kg	<0.05
Acenaphthene	mg/kg	0.2
Fluorene	mg/kg	0.1
Phenanthrene	mg/kg	1.2

Chain of Custody required a Freeland Ticket - 01322 619161

Client	Freeland Horticulture Ltd	
Job Name	Topsoil Analysis	
Site	Astley, Greater Manchester	
Month/Year	January 25	
Our Ref	1373-SA	
Date	11 February 2025	
Anthracene	mg/kg	0.2
Fluoranthene	mg/kg	1.4
Pyrene	mg/kg	1.3
Benzo[a]anthracene	mg/kg	0.6
Chrysene	mg/kg	0.7
Benzo[b]fluoranthene	mg/kg	0.6
Benzo[k]fluoranthene	mg/kg	0.2
Benzo[a]pyrene	mg/kg	0.6
Indeno[1,2,3-cd]pyrene	mg/kg	0.4
Dibenzo[a,h]anthracene	mg/kg	<0.1
Benzo[g,h,i]perylene	mg/kg	0.4
Total PAHs sum US EPA 16	mg/kg	7.9

Banded Petroleum Hydrocarbons

Aliphatic TPH >C_5-C_6	mg/kg	0.12
Aliphatic TPH >C_6-C_8	mg/kg	<0.05
Aliphatic TPH >C_8-C_{10}	mg/kg	<0.05
Aliphatic TPH >C_{10}-C_{12}	mg/kg	<10
Aliphatic TPH >C_{12}-C_{16}	mg/kg	<10
Aliphatic TPH >C_{16}-C_{21}	mg/kg	14.0
Aliphatic TPH >C_{21}-C_{35}	mg/kg	52.0
Aliphatic TPH >C_{35}-C_{44}	mg/kg	<10

Aromatic TPH >C_5-C_7	mg/kg	<0.05
Aromatic TPH >C_7-C_8	mg/kg	<0.05
Aromatic TPH >C_8-C_{10}	mg/kg	<0.05
Aromatic TPH >C_{10}-C_{12}	mg/kg	<10
Aromatic TPH >C_{12}-C_{16}	mg/kg	<10
Aromatic TPH >C_{16}-C_{21}	mg/kg	19.0
Aromatic TPH >C_{21}-C_{35}	mg/kg	190
Aromatic TPH >C_{35}-C_{44}	mg/kg	23.0

Total Petroleum Hydrocarbons (C_5-C_{44})	mg/kg	318

BTEX

Benzene	mg/kg	<0.02
Toluene	mg/kg	<0.2
Ethyl Benzene	mg/kg	<0.04
m- & p- Xylene	mg/kg	<0.2
o-Xylene	mg/kg	<0.1

Chain of Custody required a Freeland Ticket - 01322 619161

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Analytical Report Number : 25-009170

Project / Site name:	Rodney Street	Samples received on:	26/02/2025
Your job number:	22434	Samples instructed on/ Analysis started on:	26/02/2025
Your order number:	25-2-FDO-LABS	Analysis completed by:	03/03/2025
Report Issue Number:	1	Report issued on:	03/03/2025
Samples Analysed:	6 soil samples		

Signed: [redacted]

Joanna Wawrzeczko
Senior Reporting Specialist
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
air	- once the analysis is complete

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Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

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.

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The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number: 25-009170
Project / Site name: Rodney Street
Your Order No: 25-2-FDO-LABS

Lab Sample Number				463369	463370	463371	463372	463373
Sample Reference				MTS101	MTS102	MTS103	MSS101	MSS102
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.00-0.10	0.00-0.10	0.00-0.10	0.40-0.50	0.40-0.50
Date Sampled				25/02/2025	25/02/2025	25/02/2025	25/02/2025	25/02/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	21	21	20	15	13
Total mass of sample received	kg	0.1	NONE	1.1	1.2	1.1	1.1	1
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	SCA	SCA	SCA	SCA	SCA
Analysis completed	N/A	N/A	N/A	28/02/2025	28/02/2025	28/02/2025	28/02/2025	28/02/2025
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	8.2	8.2	8.7	7.8	7.6
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	960	980	1100	17	34
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.481	0.492	0.531	0.00833	0.017
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	481	492	531	8.33	17
Organic Matter (automated)	%	0.1	MCERTS	5.6	6.4	3.8	< 0.1	< 0.1
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	3.2	3.7	2.2	< 0.1	< 0.1
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.12	0.15	0.12	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.09	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.28	0.28	0.22	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.26	0.2	0.15	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	2.1	1.5	1.2	0.06	0.1
Anthracene	mg/kg	0.05	MCERTS	0.47	0.38	0.31	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	2.6	2	1.5	0.07	0.1
Pyrene	mg/kg	0.05	MCERTS	2.7	2	1.5	< 0.05	0.07
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.2	0.94	0.73	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	1.3	1	0.76	< 0.05	0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.3	1.1	0.77	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.51	0.44	0.37	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.1	0.98	0.74	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.49	0.45	0.32	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.09	0.08	0.07	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.61	0.49	0.38	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	15.4	11.9	9.05	< 0.80	< 0.80

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Analytical Report Number: 25-009170
Project / Site name: Rodney Street
Your Order No: 25-2-FDO-LABS

Lab Sample Number				463369	463370	463371	463372	463373
Sample Reference				MTS101	MTS102	MTS103	MSS101	MSS102
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.00-0.10	0.00-0.10	0.00-0.10	0.40-0.50	0.40-0.50
Date Sampled				25/02/2025	25/02/2025	25/02/2025	25/02/2025	25/02/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	4.8	4.3	5	2.6	2.3
Barium (aqua regia extractable)	mg/kg	1	MCERTS	63	67	86	23	21
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.2	< 0.2	0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	9.3	8.8	8	12	9.6
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	9.7	9.4	9.3	12	9.8
Copper (aqua regia extractable)	mg/kg	1	MCERTS	24	22	33	6.4	5.7
Lead (aqua regia extractable)	mg/kg	1	MCERTS	45	36	38	4	4.2
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	9.3	8.1	12	9.3	7.4
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	13	12	11	9.3	7.5
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	52	52	56	12	11
Petroleum Hydrocarbons								
TPHCWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	21	34	33	< 8.0	< 8.0
TPHCWG - Aliphatic >EC35 - EC40 $_{EH\_CU\_1D\_AL}$	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	21	34	33	< 10	< 10
TPHCWG - Aliphatic >EC5 - EC40 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	21	34	33	< 10	< 10
TPHCWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	4.7	2.9	4	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	20	14	16	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	67	61	54	< 10	< 10
TPHCWG - Aromatic >EC35 - EC40 $_{EH\_CU\_1D\_AR}$	mg/kg	10	NONE	23	26	26	< 10	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	92	78	74	< 10	< 10
TPHCWG - Aromatic >EC5 - EC40 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	120	100	99	< 10	< 10
TPH Total >EC5 - EC40 $_{EH\_CU+HS\_1D\_TOTAL}$	mg/kg	10	NONE	140	140	130	< 10	< 10
VOCs								
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

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

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: 25-009170
Project / Site name: Rodney Street
Your Order No: 25-2-FDO-LABS

Lab Sample Number				463374
Sample Reference				MSS103
Sample Number				None Supplied
Water Matrix				N/A
Depth (m)				0.40-0.50
Date Sampled				25/02/2025
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	13
Total mass of sample received	kg	0.1	NONE	1.1

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	SCA
Analysis completed	N/A	N/A	N/A	28/02/2025

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.7
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	46
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0232
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	23.2
Organic Matter (automated)	%	0.1	MCERTS	< 0.1
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	< 0.1

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.2
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.22
Pyrene	mg/kg	0.05	MCERTS	0.16
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.11
Chrysene	mg/kg	0.05	MCERTS	0.11
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.1
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.08
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	0.99

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Analytical Report Number: 25-009170
Project / Site name: Rodney Street
Your Order No: 25-2-FDO-LABS

Lab Sample Number				463374
Sample Reference				MSS103
Sample Number				None Supplied
Water Matrix				N/A
Depth (m)				0.40-0.50
Date Sampled				25/02/2025
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	2.6
Barium (aqua regia extractable)	mg/kg	1	MCERTS	22
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8
Chromium (III)	mg/kg	1	NONE	8.6
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	9.2
Copper (aqua regia extractable)	mg/kg	1	MCERTS	5.8
Lead (aqua regia extractable)	mg/kg	1	MCERTS	4.8
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	7.7
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	8.4
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	10
Petroleum Hydrocarbons				
TPHCWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0
TPHCWG - Aliphatic >EC35 - EC40 $_{EH\_CU\_1D\_AL}$	mg/kg	10	NONE	< 10
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10
TPHCWG - Aliphatic >EC5 - EC40 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10
TPHCWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010
TPHCWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.02	MCERTS	< 0.020
TPHCWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10
TPHCWG - Aromatic >EC35 - EC40 $_{EH\_CU\_1D\_AR}$	mg/kg	10	NONE	< 10
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10
TPHCWG - Aromatic >EC5 - EC40 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10
TPH Total >EC5 - EC40 $_{EH\_CU+HS\_1D\_TOTAL}$	mg/kg	10	NONE	< 10
VOCs				
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0
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	8	MCERTS	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0

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

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Analytical Report Number : 25-009170
Project / Site name: Rodney Street

* 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 *
463369	MTS101	None Supplied	0.00-0.10	Brown loam and sand with gravel and vegetation
463370	MTS102	None Supplied	0.00-0.10	Brown loam and sand with gravel and vegetation
463371	MTS103	None Supplied	0.00-0.10	Brown loam and sand with gravel and vegetation
463372	MSS101	None Supplied	0.40-0.50	Brown sand with gravel
463373	MSS102	None Supplied	0.40-0.50	Brown sand with gravel
463374	MSS103	None Supplied	0.40-0.50	Brown sand with gravel

Analytical Report Number : 25-009170
Project / Site name: Rodney Street

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
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.	L019B	D	NONE
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	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088-PL	D/W	MCERTS
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080-PL/L130B	W	NONE
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
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS

Analytical Report Number : 25-009170
Project / Site name: Rodney Street

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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

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.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

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Analytical Report Number : 25-027048

Project / Site name:	Rodney Street	Samples received on:	27/05/2025
Your job number:	22434	Samples instructed on/ Analysis started on:	27/05/2025
Your order number:	25-2-FDO-LABS	Analysis completed by:	31/05/2025
Report Issue Number:	1	Report issued on:	02/06/2025
Samples Analysed:	2 soil samples		

Signed: [redacted]

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
air	- once the analysis is complete

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

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

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 are representative of the samples submitted for analysis.

Analytical Report Number: 25-027048
Project / Site name: Rodney Street
Your Order No: 25-2-FDO-LABS

Lab Sample Number				557369	557370
Sample Reference				IP1SS	IP2SS
Sample Number				None Supplied	None Supplied
Water Matrix				N/A	N/A
Depth (m)				0.25-0.35	0.15-0.30
Date Sampled				22/05/2025	22/05/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	8.9	9.9
Total mass of sample received	kg	0.1	NONE	0.8	0.7
Asbestos					
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	PDO	PDO
Analysis completed	N/A	N/A	N/A	31/05/2025	31/05/2025
General Inorganics					
pH (L099)	pH Units	N/A	MCERTS	8.9	9
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	640	800
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.32	0.399
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	320	399
Organic Matter (automated)	%	0.1	MCERTS	2	2
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.1	1.2
Total Phenols					
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0
Speciated PAHs					
Naphthalene	mg/kg	0.05	MCERTS	0.19	0.19
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.31	0.33
Fluorene	mg/kg	0.05	MCERTS	0.21	0.22
Phenanthrene	mg/kg	0.05	MCERTS	1.7	2.1
Anthracene	mg/kg	0.05	MCERTS	0.38	0.46
Fluoranthene	mg/kg	0.05	MCERTS	2.5	2.8
Pyrene	mg/kg	0.05	MCERTS	2.5	2.7
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.2	1.3
Chrysene	mg/kg	0.05	MCERTS	1.3	1.4
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.4	1.5
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.44	0.61
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.4	1.4
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.58	0.64
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.15	0.16
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.74	0.8
Total PAH					
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	14.9	16.6

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: 25-027048
Project / Site name: Rodney Street
Your Order No: 25-2-FDO-LABS

Lab Sample Number				557369	557370
Sample Reference				IP1SS	IP2SS
Sample Number				None Supplied	None Supplied
Water Matrix				N/A	N/A
Depth (m)				0.25-0.35	0.15-0.30
Date Sampled				22/05/2025	22/05/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		
Heavy Metals / Metalloids					
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.4	7.5
Barium (aqua regia extractable)	mg/kg	1	MCERTS	110	110
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	0.3
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8
Chromium (III)	mg/kg	1	NONE	13	13
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	13
Copper (aqua regia extractable)	mg/kg	1	MCERTS	30	31
Lead (aqua regia extractable)	mg/kg	1	MCERTS	66	83
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	13	12
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	1
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	17	16
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	68	68
Petroleum Hydrocarbons					
TPHCWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	12	31
TPHCWG - Aliphatic >EC35 - EC40 $_{EH\_CU\_1D\_AL}$	mg/kg	10	NONE	< 10	< 10
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	12	31
TPHCWG - Aliphatic >EC5 - EC40 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	12	31
TPHCWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.02	MCERTS	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	2.5	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	24	29
TPHCWG - Aromatic >EC35 - EC40 $_{EH\_CU\_1D\_AR}$	mg/kg	10	NONE	12	14
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	27	29
TPHCWG - Aromatic >EC5 - EC40 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	39	43
TPH Total >EC5 - EC40 $_{EH\_CU+HS\_1D\_TOTAL}$	mg/kg	10	NONE	50	74
VOCs					
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	7.3	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0

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

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Analytical Report Number : 25-027048
Project / Site name: Rodney Street

* 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 *
557369	IP1SS	None Supplied	0.25-0.35	Brown loam with gravel and vegetation
557370	IP2SS	None Supplied	0.15-0.30	Brown loam with gravel and vegetation

Analytical Report Number : 25-027048
Project / Site name: Rodney Street

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
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.	L019B	D	NONE
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	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088-PL	D/W	MCERTS
Chromium III in soil	In-house method by calculation from total Cr and Cr VI	In-house method by calculation	L080-PL/L130B	W	NONE
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
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	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

Analytical Report Number : 25-027048
Project / Site name: Rodney Street

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

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.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

BASIC STATISTICAL RESULTS SUMMARY

Site Name	Rodney Street												
Project Number	22434												
Sample Location	MTS101	MTS102	MTS103	MSS101	MSS102	MSS103	IP1SS	IP2SS					
Depth	0.00-0.10	0.00-0.10	0.00-0.10	0.40-0.50	0.40-0.50	0.40-0.50	0.25-0.35	0.15-0.30					
Determinand									Number of Tests	Maximum ($mg.kg^{-1}$)	Mean ($mg.kg^{-1}$)	Screening Level ($mg.kg^{-1}$)	No. > SL
Arsenic	4.8	4.3	5	2.6	2.3	2.6	7.4	7.5	8	7.5	4.563	37	0
Barium	63	67	86	23	21	22	110	110	8	110	62.750	1300	0
Cadmium	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	8	0.4	0.238	11	0
Hexavalent Chromium	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	8	1.8	1.800	6	0
Chromium III	9.3	8.8	8	12	9.6	8.6	13	13	8	13	10.288	910	0
Chromium (total)	9.7	9.4	9.3	12	9.8	9.2	13	13	8	13	10.675	-	-
Copper	24	22	33	6.4	5.7	5.8	30	31	8	33	19.738	2400	0
Lead	45	36	38	4	4.2	4.8	66	83	8	83	35.125	200	0
Mercury	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	8	0.3	0.300	40	0
Nickel	9.3	8.1	12	9.3	7.4	7.7	13	12	8	13	9.850	130	0
Selenium	1	1	1	1	1	1	1	1	8	1	1.000	250	0
Vanadium	13	12	11	9.3	7.5	8.4	17	16	8	17	11.775	410	0
Zinc	52	52	56	12	11	10	68	68	8	68	41.125	3700	0
pH	8.2	8.2	8.7	7.8	7.6	7.7	8.9	9	8	9	8.263	9	0
Water Soluble SO4 (BRE SD 2:1 Leach Equivalent) $g.l^{-1}$	0.481	0.492	0.531	0.00833	0.017	0.0232	0.32	0.399	8	0.531	0.284	-	-
% Organic matter	5.6	6.4	3.8	0.1	0.1	0.1	2	2	8	6.4	2.513	-	-
% TOC	3.2	3.7	2.2	0.1	0.1	0.1	1.1	1.2	8	3.7	1.463	-	-
Aliphatic C5-C6	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	8	0.01	0.010	78	0
Aliphatic C6-C8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	8	0.01	0.010	230	0
Aliphatic C8-C10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	8	0.01	0.010	65	0
Aliphatic C10-C12	1	1	1	1	1	1	1	1	8	1	1.000	330	0
Aliphatic C12-C16	2	2	2	2	2	2	2	2	8	2	2.000	2400	0
Aliphatic C16-C21	8	8	8	8	8	8	8	8	8	8	8.000	92000	0
Aliphatic C21-C35	21	34	33	8	8	8	12	31	8	34	19.375	92000	0
Aliphatic C35-C40	10	10	10	10	10	10	10	10	8	10	10.000	-	-
Aliphatic C5-C35	21	34	33	10	10	10	12	31	8	34	20.125	-	-
Aromatic C5-C7	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	8	0.01	0.010	140	0
Aromatic C7-C8	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	8	0.01	0.010	290	0
Aromatic C8-C10	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	8	0.02	0.020	83	0
Aromatic C10-C12	1	1	1	1	1	1	1	1	8	1	1.000	180	0
Aromatic C12-C16	4.7	2.9	4	2	2	2	2.5	2	8	4.7	2.763	330	0
Aromatic C16-C21	20	14	16	10	10	10	10	10	8	20	12.500	540	0
Aromatic C21-C35	67	61	54	10	10	10	24	29	8	67	33.125	1500	0
Aromatic C35-C40	23	26	26	10	10	10	12	14	8	26	16.375	-	-
Aromatic C5-C35	92	78	74	10	10	10	27	29	8	92	41.250	-	-
TPH Total C5 - C40	140	140	130	10	10	10	50	74	8	140	70.500	-	-
Benzene	5	5	5	5	5	5	5	5	-	-	-	-	-
Toluene	5	5	5	5	5	5	7.3	5	-	-	-	-	-
Ethylbenzene	5	5	5	5	5	5	5	5	-	-	-	-	-
p & m-xylene	8	8	8	8	8	8	8	8	-	-	-	-	-
o-xylene	5	5	5	5	5	5	5	5	-	-	-	-	-
MTBE	5	5	5	5	5	5	5	5	-	-	-	-	-
Benzene	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	8	0.005	0.005	0.17	0
Toluene	0.005	0.005	0.005	0.005	0.005	0.005	0.0073	0.005	8	0.0073	0.005	290	0
Ethylbenzene	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	8	0.005	0.005	110	0
total xylene	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	8	0.013	0.013	130	0
MTBE	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	8	0.005	0.005	-	-
Naphthalene	0.12	0.15	0.12	0.05	0.05	0.05	0.19	0.19	8	0.19	0.115	5.6	0
Acenaphthylene	0.09	0.05	0.05	0.05	0.05	0.05	0.05	0.05	8	0.09	0.055	420	0
Acenaphthene	0.28	0.28	0.22	0.05	0.05	0.05	0.31	0.33	8	0.33	0.196	510	0
Fluorene	0.26	0.2	0.15	0.05	0.05	0.05	0.21	0.22	8	0.26	0.149	400	0
Phenanthrene	2.1	1.5	1.2	0.06	0.1	0.2	1.7	2.1	8	2.1	1.120	220	0
Anthracene	0.47	0.38	0.31	0.05	0.05	0.05	0.38	0.46	8	0.47	0.269	5400	0
Fluoranthene	2.6	2	1.5	0.07	0.1	0.22	2.5	2.8	8	2.8	1.474	560	0
Pyrene	2.7	2	1.5	0.05	0.07	0.16	2.5	2.7	8	2.7	1.460	1200	0
Benzo(a)anthracene	1.2	0.94	0.73	0.05	0.05	0.11	1.2	1.3	8	1.3	0.698	11	0
Chrysene	1.3	1	0.76	0.05	0.05	0.11	1.3	1.4	8	1.4	0.746	22	0
Benzo(b)fluoranthene	1.3	1.1	0.77	0.05	0.05	0.1	1.4	1.5	8	1.5	0.784	3.3	0
Benzo(k)fluoranthene	0.51	0.44	0.37	0.05	0.05	0.05	0.44	0.61	8	0.61	0.315	93	0
Benzo(a)pyrene	1.1	0.98	0.74	0.05	0.05	0.08	1.4	1.4	8	1.4	0.725	2.7	0
Indeno(1,2,3-c,d)pyrene	0.49	0.45	0.32	0.05	0.05	0.05	0.58	0.64	8	0.64	0.329	36	0
Dibenzo(a,h)anthracene	0.09	0.08	0.07	0.05	0.05	0.05	0.15	0.16	8	0.16	0.088	0.28	0
Benzo(g,h,i)perylene	0.61	0.49	0.38	0.05	0.05	0.05	0.74	0.8	8	0.8	0.396	340	0
Total PAH - USEPA 16	15.4	11.9	9.05	0.8	0.8	0.99	14.9	16.6	8	16.6	8.805	-	-
Phenol - Monohydric	< 1.	< 1.	< 1.	< 1.	< 1.	< 1.	1	1	8	1	1.000	200	0



Plate 1: Imported topsoil stockpile



Plate 2: Close view of imported topsoil



Plate 3: Imported subsoil stockpile



Plate 4: Close view of imported subsoil



Plate 1: Contextual view of Inspection Pit 1.



Plate 2: Down-pit view of Inspection Pit 1 showing membrane.



Plate 3: Depth check Inspection Pit 2 showing 500mm clean cover of which 250mm topsoil.



Plate 4: Contextual view of Inspection Pit 2.



Plate 5: Down-pit view of Inspection Pit 2 showing membrane.



Plate 6: Depth check Inspection Pit 2 showing 450mm clean cover of which 150mm topsoil.



Plate 7: Contextual view of Inspection Pit 3.



Plate 8: Down-pit view of Inspection Pit 3 showing membrane.



Plate 9: Closer down-pit view of Inspection Pit 2 showing membrane – membrane covered in mud but white of membrane clearer to see.



Plate 10: Depth check Inspection Pit 2 showing 325mm clean cover subsoil (wildflower planting area does not require topsoil).



Plate 11: Contextual view of Inspection Pit 4.



Plate 12: Depth check Inspection Pit 4 showing 500mm clean cover subsoil of which 150mm topsoil.



Plate 13: Contextual view of Inspection Pit 5.



Plate 14: Depth check Inspection Pit 5 showing 350mm clean cover subsoil (wildflower planting area does not require topsoil).



Plate 15: Contextual View of Inspection Pit 6.

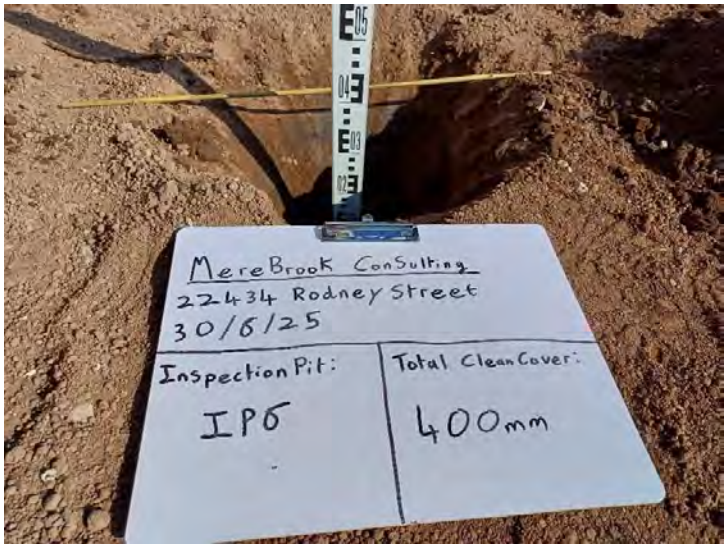


Plate 16: Photoboard details Inspection Pit 6.



Plate 17: Depth check Inspection Pit 6 showing 400mm clean cover subsoil (wildflower planting area does not require topsoil).



Plate 18: Inspection pit 6 showing membrane at base.



Plate 19: Contextual View of Inspection Pit 7.



Plate 20: Inspection pit 7 photoboard and membrane visible at base.



Plate 21: Inspection Pit 7 300mm clean cover subsoil (wildflower planting area does not require topsoil).



Plate 22: Contextual view Inspection pit 8.



Plate 23: Inspection Pit 8 photoboard.



Plate 24: Inspection Pit 8 500mm clean cover subsoil (wildflower planting area does not require topsoil).



Plate 25: Inspection Pit 8 membrane at base.



Plate 26: Contextual View Inspection Pit 9.



Plate 27: Inspection Pit 9 photoboard and membrane at base.



Plate 28: Depth check Inspection Pit 9 showing 500mm clean cover of which 450mm topsoil and 50mm subsoil.



Plate 29: Contextual view Inspection Pit 10.



Plate 30: Inspection Pit 10 photoboard and membrane at base.



Plate 31: Depth check Inspection Pit 10 showing 450mm topsoil clean cover.



Plate 32: Contextual view Inspection Pit 11.



Plate 33: Inspection pit 11 photoboard.



Plate 34: Depth check Inspection Pit 11 showing 200mm subsoil clean cover. This area is in the vicinity of a high-pressure gas main where no mechanical excavation was allowed, resulting in lower clean cover in this area only.



Plate 35: Inspection Pit 11 close-up of membrane at base.



Plate 36: Contextual view Inspection Pit 12.



Plate 37: Inspection Pit 12 photoboard.



Plate 38: Inspection Pit 12 525mm clean cover subsoil (wildflower planting area does not require topsoil).



Plate 39: Contextual view Inspection Pit 13.



Plate 40: Inspection Pit 13 photoboard.



Plate 41: Depth check Inspection Pit 13 showing 500mm topsoil clean cover.



Plate 42: Photo of membrane being installed in area of Inspection Pits 12 and 13, shown to be covered by layer of gravel prior to clean cover soil placement.



Plate 43: Contextual view Inspection Pit 14.



Plate 44: Inspection Pit 14 photoboard.



Plate 45: Depth check Inspection Pit 14 showing 390mm clean cover of which 200mm topsoil underlain by 190mm subsoil.



Plate 46: Inspection Pit 14 membrane at base of pit.



Plate 47: Contextual view Inspection Pit 15.



Plate 48: Inspection Pit 15 photoboard.



Plate 49: Depth check Inspection Pit 15 750mm clean cover of which 200mm topsoil underlain by 500mm subsoil.



Plate 50: Inspection Pit 15 membrane at base close-up.



Plate 51: Contextual view Inspection Pit 16 (Rear garden Plot 9).



Plate 52: Depth check Inspection Pit 16 (Plot 9) showing 600mm clean cover of which 150mm topsoil underlain by 450mm subsoil.



Plate 53: Inspection Pit 16 (Plot 9) photoboard and membrane at base.



Plate 54: Contextual view Inspection Pit 17 (Plot 3).



Plate 55: Inspection Pit 17 (Plot 3) photoboard and membrane at base.



Plate 56: Depth check Inspection Pit 17 (Plot 3) showing 600mm clean cover of which 150mm topsoil underlain by 450mm subsoil.

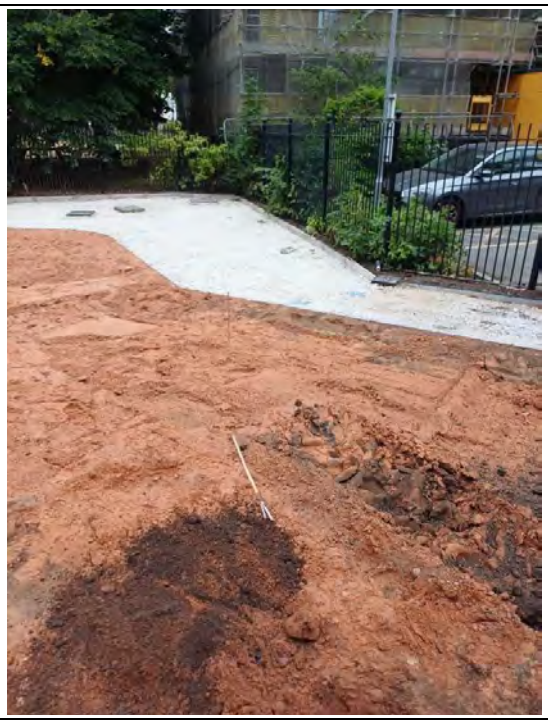


Plate 57: Contextual view Inspection Pit 18



Plate 58: Inspection Pit 18 photoboard



Plate 59: Inspection Pit 18 showing 600mm clean cover subsoil



Plate 60: Inspection Pit 18 showing membrane at base of pit



Plate 61: Inspection Pit 19 contextuel view.



Plate 62: Inspection Pit 19 showing photoboard.



Plate 63: Inspection Pit 19 showing 570mm clean cover subsoil.



Plate 64: Inspection Pit 19 with close up showing white membrane at base.



Plate 65: Inspection Pit 20 contextual view and photoboard, also showing 550mm clean cover topsoil.



Plate 66: Inspection Pit 20 showing white membrane at base.



Plate 67: Inspection Pit 21 contextual view, photoboard and showing 600mm clean cover comprising 450mm subsoil topped with 150mm topsoil.



Plate 68: Inspection Pit 21 showing white membrane at base.



Plate 69: Inspection Pit 22 contextual view, photoboard and showing 300mm clean cover topsoil.



Plate 70: Inspection Pit 22 showing 300mm clean cover and white membrane at base.



Plate 71: Additional contextual view photo of position of IP22 facing the rest of the site



Plate 72: Inspection Pit 23 photoboard and 300mm clean cover subsoil.



Plate 73: Inspection Pit 23 showing white membrane at base.



Plate 74: Inspection Pit 23 contextual view from pit facing the rest of the site.



NOTES

1. Do not scale from this drawing.
2. Levels are in meters AOD, unless stated otherwise.
3. Dimensions are in meters, unless stated otherwise.
4. This drawing should only be used for the purpose intended. Merebrook Consulting Limited are not accountable for use outside of intended purpose.

KEY

IPref — Merebrook validation locations with reference

DESCRIPTION	DATE	DWN	CHD	APP'D	REV
INSPECTION PITS UPDATED	29/08/25	CW	AH	AH	P1
FIRST ISSUE	13/06/25	CW	AH	AH	P0

ISSUE PURPOSE
PRELIMINARY

CLIENT
WATES CONSTRUCTION

PROJECT
RODNEY STREET

DWG TITLE
PHASE 1 VALIDATION LOCATIONS

DWG NO.
22434-304-002

SCALE	DATE	FRAME DIMS (mm)
N.T.S	JUNE 2025	(A3) 420 x 297

DRAWN	CHECKED	APPROVED
CW	AH	AH

MEREBROOK CONSULTING
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APPENDIX 5

- Ground Gas & Vapour Protection Validation Records
- Gas Protection Details Town Houses, Block A & B
- Merebrook Waterproofing Inspection Records Block A & B
- Merebrook Membrane Installation Inspection Records Block A & B
- Premcrete Gas Membrane Installation Inspection Reports

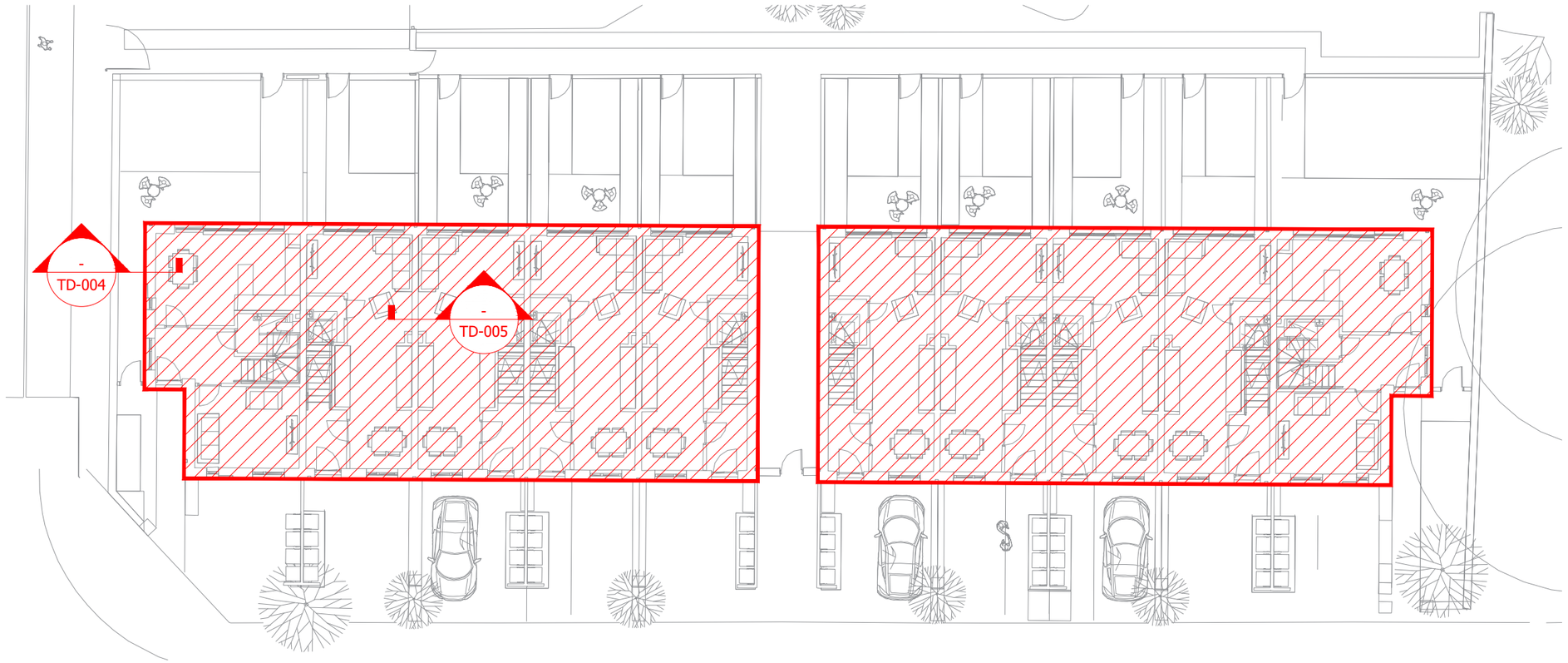
Important design notes:

-

PROTECTION MEASURES FOR GROUND GASES - BS 8485:2015+A1:2019

GAS PROTECTION REQUIREMENTS		
BUILDING TYPE	CS VALUE	POINTS REQ.
B	CS2	3.5

GAS PROTECTION MEASURES		
ELEMENT / SYSTEM	SPECIFICATION	POINTS
STRUCTURAL BARRIER	N/A	0
VENTILATION MEASURES	Passive dispersal layer	1.5 or 2.5
MEMBRANE	Hydroprufe 9000	2
	TOTAL	3.5 or 4.5



KEY

Keys below show products specified on the drawing

Gas Proofing
Hydroprufe 9000

Conditions

This drawing is copyright of Premcrete. Permission for copying may be obtained from Premcrete.
This drawing must be read in conjunction with the relevant datasheets, BS 8102:2022 and BS 8485:2015+A1:2019 if appropriate.
This drawing has been prepared as a guide to assist with the installation of the products.
This drawing requires the approval of the designer of the structure.
It is the responsibility of the designer to ensure that any design decisions, made by others that have an impact on the waterproofing design are brought to the attention of the waterproof designer.
It is the responsibility of the designer of the structure to ensure that the details shown on this drawing match the construction drawings.
Drawing template is A3L.

Important Notes

The waterproofing design is designed to the Grades of Environment described below:
Grade 1A - Seepage and dampness from internal and external sources tolerable
Grade 1B - No seepage, however damp areas from internal and external sources tolerable
Grade 2 - No seepage through structure is acceptable however condensation and dampness are tolerable as a result of internal air moisture
Grade 3 - Ventilation, dehumidification or air conditioning are required appropriate to intended use in accord with BS 8102:2022 Table 2 to achieve a dry, habitable environment which is outside the scope of this design

Construction joints are required to be scabbled or retarded to ensure good concrete connection.
An approved curing agent is to be applied to concrete immediately after pouring.
Laps between dissimilar waterproofing products to be 100mm unless otherwise annotated.
All substructure construction joints must have waterbar installed with a minimum of 75mm concrete cover. (Internal, non-retaining construction joints do not require waterbars).
Maximum pour size to be confirmed by Structural Engineers to maintain 0.3mm designed crack width. Liner wall pours should be cast 'hit and miss to ensure that shrinkage of concrete is compensated.
It is the responsibility of the installing contractor to ensure that good concrete practice is maintained at all times when pouring concrete.
If the design incorporates any of the following products:

- Hydrocrete should be a minimum of 200mm thick or 300mm if poured monolithically in conjunction with standard concrete.
- Hydroprufe Primer to be applied to concrete/ masonry substrate prior to the application of Hydroflow Corner Tape or Hydroprufe Detail Tape.
- Hydroseal Sealer to be applied to all surfaces prior to installing Hydroflow HP.
- High density insulation under Hydroflow HP20 should be fixed to substrate at a minimum of 5 fixings per sheet.

UNDERLAID DRAWING DETAILS	
ORIGINATOR	BUTTRESS
TITLE	PROPOSED SITE PLAN & BLOCK PLAN
DRAWING NO.	RODSTA-BUT-ZZ-00-DP-A-02011
REVISION	P01

Rev	Date	Description	Dwn	Chk
C01	12/09/23	Construction Issue	AJM	JM
P01	23/08/23	Issued for Information	DM	JM

Scale

Not to Scale

CONSTRUCTION ISSUE

This drawing is designed to achieve the following environment in accordance with BS 8102:2022

GAS PROOFING

Client

WATES CONSTRUCTION

Project

RODNEY STREET, MANCHESTER

Premcrete Drawing No

OP002376-GA-003

Title

GA PLAN SHOWING EXTENT OF GAS PROOFING ON TOWNHOUSE BLOCK A & B

Date

23/08/2023

PREMCRETE
44 Macadam Way | West Portway Industrial Park
Andover | Hampshire | SP10 3XW
Tel: 02380 276166 | sales@premcrete.com
www.premcrete.com

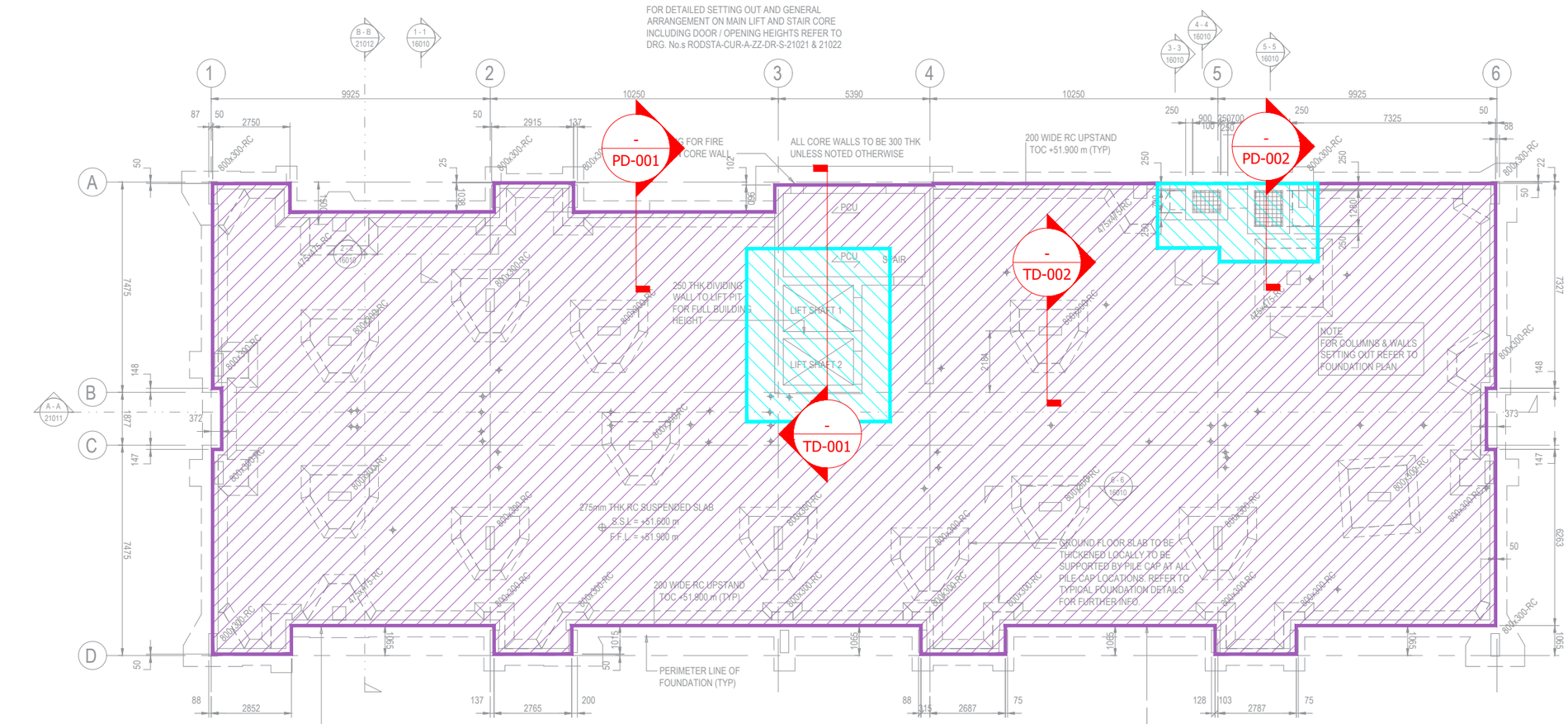
Important design notes:

-

PROTECTION MEASURES FOR GROUND GASES - BS 8485:2015+A1:2019

GAS PROTECTION REQUIREMENTS		
BUILDING TYPE	CS VALUE	POINTS REQ.
B	CS2	3.5

GAS PROTECTION MEASURES		
ELEMENT / SYSTEM	SPECIFICATION	POINTS
STRUCTURAL BARRIER	Cast in situ monolithic reinforced ground bearing raft or reinforced cast in situ suspended floor slab with minimal penetrations	1.5
VENTILATION MEASURES	N/A	0
MEMBRANE	Combi-Seal	2
	TOTAL	3.5



KEY

Keys below show products specified on the drawing

Grade 3 - GL Slab
Combi-Seal

Grade 3 - Pits
Combi-Seal and Hydrocrete Concrete

Conditions

This drawing is copyright of Premcrete. Permission for copying may be obtained from Premcrete.

This drawing must be read in conjunction with the relevant datasheets, BS 8102:2022 and BS 8485:2015+A1:2019 if appropriate.
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It is the responsibility of the designer of the structure to ensure that the details shown on this drawing match the construction drawings.
Drawing template is A3L.

Important Notes

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Grade 1B - No seepage, however damp areas from internal and external sources tolerable
Grade 2 - No seepage through structure is acceptable however condensation and dampness are tolerable as a result of internal air moisture
Grade 3 - Ventilation, dehumidification or air conditioning are required appropriate to intended use in accord with BS 8102:2022 Table 2 to achieve a dry, habitable environment which is outside the scope of this design

Construction joints are required to be scabbled or retarded to ensure good concrete connection. An approved curing agent is to be applied to concrete immediately after pouring.
Laps between dissimilar waterproofing products to be 100mm unless otherwise annotated.
All substructure construction joints must have waterbar installed with a minimum of 75mm concrete cover. (Internal, non-retaining construction joints do not require waterbars).
Maximum pour size to be confirmed by Structural Engineers to maintain 0.3mm designed crack width. Liner wall pours should be cast 'hit and miss to ensure that shrinkage of concrete is compensated.
It is the responsibility of the installing contractor to ensure that good concrete practice is maintained at all times when pouring concrete.
If the design incorporates any of the following products:

- Hydrocrete should be a minimum of 200mm thick or 300mm if poured monolithically in conjunction with standard concrete.
- Hydroprufe Primer to be applied to concrete/ masonry substrate prior to the application of Hydroflow Corner Tape or Hydroprufe Detail Tape.
- Hydroseal Sealer to be applied to all surfaces prior to installing Hydroflow HP.
- High density insulation under Hydroflow HP20 should be fixed to substrate at a minimum of 5 fixings per sheet.

UNDERLAID DRAWING DETAILS	
ORIGINATOR	CURTINS
TITLE	SUBSTRUCTURE DETAIL REFERENCE PLAN
DRAWING NO.	FHN-WSH-438-10-16-001
REVISION	C01

Rev	Date	Description	Dwn	Chk
C01	12/09/23	Construction Issue	AJM	JM
P01	23/08/23	Issued for Information	DM	JM

Scale

Not to Scale

CONSTRUCTION ISSUE

This drawing is designed to achieve the following environment in accordance with BS 8102:2022

GRADE 3

Client
WATES CONSTRUCTION

Project
RODNEY STREET, MANCHESTER

Premcrete Drawing No
OP002376-GA-001

Title
GA PLAN SHOWING EXTENT OF WATERPROOFING ON BLOCK A

Date
23/08/2023

PREMCRETE
44 Macadam Way | West Portway Industrial Park
Andover | Hampshire | SP10 3XW
Tel: 02380 276166 | sales@premcrete.com
www.premcrete.com

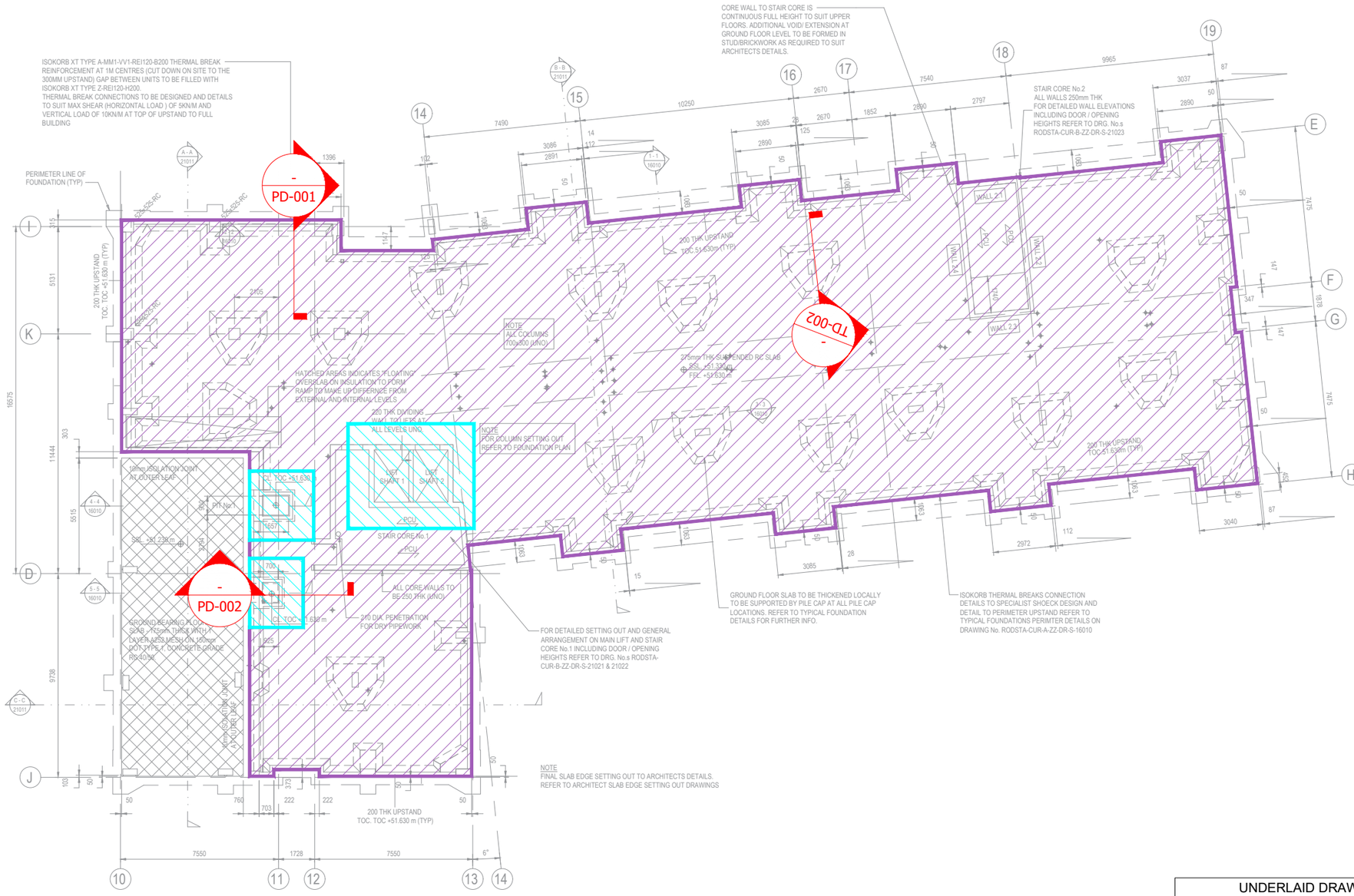
Important design notes:

-

PROTECTION MEASURES FOR GROUND GASES - BS 8485:2015+A1:2019

GAS PROTECTION REQUIREMENTS		
BUILDING TYPE	CS VALUE	POINTS REQ.
B	CS2	3.5

GAS PROTECTION MEASURES		
ELEMENT / SYSTEM	SPECIFICATION	POINTS
STRUCTURAL BARRIER	Cast in situ monolithic reinforced ground bearing raft or reinforced cast in situ suspended floor slab with minimal penetrations	1.5
VENTILATION MEASURES	N/A	0
MEMBRANE	Combi-Seal	2
	TOTAL	3.5



KEY

Keys below show products specified on the drawing

Grade 3 - GL Slab
Combi-Seal

Grade 3 - Pits
Combi-Seal and Hydrocrete Concrete

Conditions

This drawing is copyright of Premcrete. Permission for copying may be obtained from Premcrete.
This drawing must be read in conjunction with the relevant datasheets, BS 8102:2022 and BS 8485:2015+A1:2019 if appropriate.
This drawing has been prepared as a guide to assist with the installation of the products.
This drawing requires the approval of the designer of the structure.
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It is the responsibility of the designer of the structure to ensure that the details shown on this drawing match the construction drawings.
Drawing template is A3L.

Important Notes

The waterproofing design is designed to the Grades of Environment described below:
Grade 1A - Seepage and dampness from internal and external sources tolerable
Grade 1B - No seepage, however damp areas from internal and external sources tolerable
Grade 2 - No seepage through structure is acceptable however condensation and dampness are tolerable as a result of internal air moisture
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Construction joints are required to be scabbled or retarded to ensure good concrete connection. An approved curing agent is to be applied to concrete immediately after pouring.
Laps between dissimilar waterproofing products to be 100mm unless otherwise annotated.
All substructure construction joints must have waterbar installed with a minimum of 75mm concrete cover. (Internal, non-retaining construction joints do not require waterbars).
Maximum pour size to be confirmed by Structural Engineers to maintain 0.3mm designed crack width. Liner wall pours should be cast 'hit and miss to ensure that shrinkage of concrete is compensated.
It is the responsibility of the installing contractor to ensure that good concrete practice is maintained at all times when pouring concrete.
If the design incorporates any of the following products:

- Hydrocrete should be a minimum of 200mm thick or 300mm if poured monolithically in conjunction with standard concrete.
- Hydroprufe Primer to be applied to concrete/ masonry substrate prior to the application of Hydroflow Corner Tape or Hydroprufe Detail Tape.
- Hydroseal Sealer to be applied to all surfaces prior to installing Hydroflow HP.
- High density insulation under Hydroflow HP20 should be fixed to substrate at a minimum of 5 fixings per sheet.

UNDERLAID DRAWING DETAILS

ORIGINATOR	CURTINS
TITLE	SUBSTRUCTURE DETAIL REFERENCE PLAN
DRAWING NO.	FHN-WSH-438-10-16-001
REVISION	C01

Rev	Date	Description	Dwn	Chk
C01	12/09/23	Construction Issue	AJM	JM
P01	23/08/23	Issued for Information	DM	JM

Scale

Not to Scale

CONSTRUCTION ISSUE

This drawing is designed to achieve the following environment in accordance with BS 8102:2022

GRADE 3

Client

WATES CONSTRUCTION

Project

RODNEY STREET, MANCHESTER

Premcrete Drawing No

OP002376-GA-002

Title

GA PLAN SHOWING EXTENT OF WATERPROOFING ON BLOCK B

Date

23/08/2023

PREMCRETE
44 Macadam Way | West Portway Industrial Park
Andover | Hampshire | SP10 3XW
Tel: 02380 276166 | sales@premcrete.com
www.premcrete.com



Plate 1: Waterproofing inspection Block A - March 2024

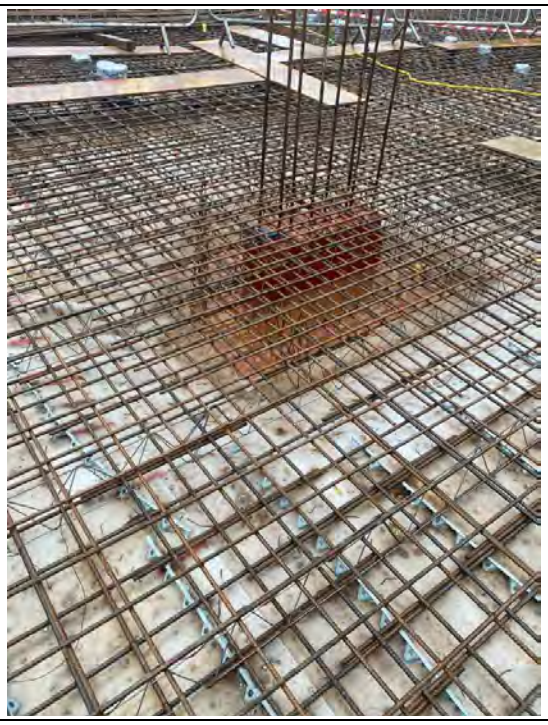


Plate 2: Waterproofing inspection Block A - March 2024



Plate 3: Waterproofing inspection Block A - March 2024



Plate 4: Waterproofing inspection Block B - March 2024



Plate 5: Waterproofing inspection Block B - March 2024



Plate 1: Block A gas membrane seal inspection on sides of slab – February 2024



Plate 2: Block A gas membrane seal inspection on sides of slab – February 2024



Plate 3: Block A gas membrane seal inspection on sides of slab – February 2024

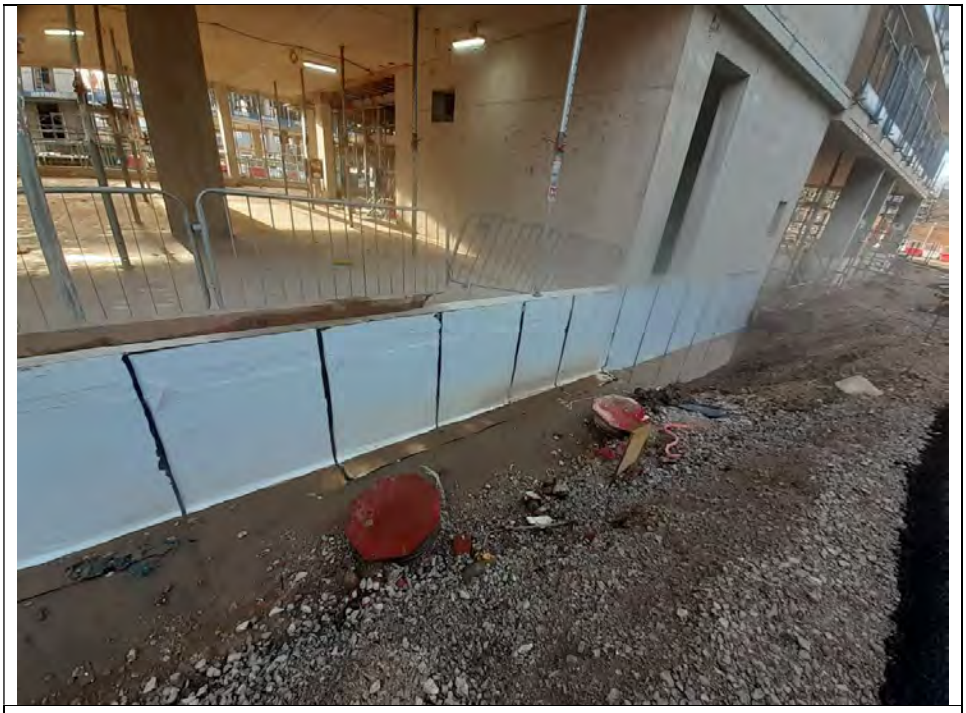


Plate 4: Block A gas membrane seal inspection on sides of slab – February 2024



Plate 5: Block A gas membrane seal inspection on sides of slab – February 2024



Plate 6: Block B gas membrane seal inspection on sides of slab – February 2024



Plate 7: Block A gas membrane seal inspection on sides of slab – February 2024



Plate 8: Block B gas membrane seal inspection on sides of slab – February 2024



Plate 9: Block B gas membrane seal inspection on sides of slab – February 2024



Plate 10: Block B gas membrane seal inspection on sides of slab – February 2024



Plate 11: Block B gas membrane seal inspection on sides of slab – February 2024



Plate 12: Block B gas membrane seal inspection on sides of slab – February 2024



Plate 13: Block B gas membrane seal inspection on sides of slab – February 2024



Plate 14: Block B gas membrane seal inspection on sides of slab – February 2024

Inspection Report

Project:	**Rodney Street Project**
Main Contractor:	**Wates**
Waterproofing Contractor:	**Heyrod**
Inspection Dates:	**20/09/23**
Report Scope:	**Product Application Inspection**
Notes:	

Site Inspection:

A site visit was carried out to asses the installation of the Premcrete products being applied to Block A substructure to ensure installetion was according to our design.

Installation was being carried out to a good standard, including the relevant waterstops within the construction joints. Liquid applied products applied to core areas with laps and connections to pre-applied membranes for floor slab areas.







Field Technician: A Martin
Date: 21/09/23

Inspection Report

Project:	**Rodney Street Project**
Main Contractor:	**Wates**
Waterproofing Contractor:	**Heyrod**
Inspection Dates:	**07/12/24**
Report Scope:	**Product Application Inspection**
Notes:	

Site Inspection:

A site visit was carried out to asses the installation of the Premcrete products being applied to Block B substructure to ensure installation was according to our design.

Installation of pre-applied membrane underway, being installed according to Premcrete details, laps and joints sealed correctly. Installation to a good standard.



PREMCRETE

Field Technician: A Martin
Date: 08/12/23

Inspection Report

Project:	**Rodney Street Project**
Main Contractor:	**Wates**
Waterproofing Contractor:	**Heyrod**
Inspection Dates:	**12/06/24**
Report Scope:	**Product Application Inspection**
Notes:	

Site Inspection:

Durring the site visit on 12/06/24, I was also able to inspect the ongoing perimeter membrane installation to Blocks A and B. this was being installed as designed and no issues were detected. A good standard of workmanship was observed.



PREMCRETE

Field Technician: A Martin
Date: 13/06/24

Inspection Report

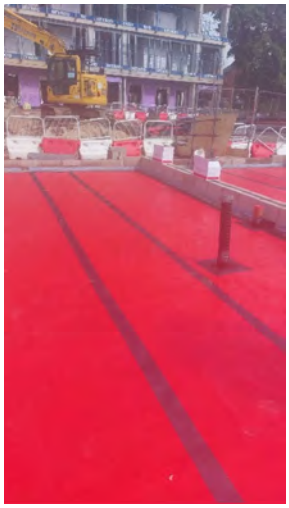
Project:	**Rodney Street Project**
Main Contractor:	**Wates**
Waterproofing Contractor:	**Heyrod**
Inspection Dates:	**12/06/24**
Report Scope:	**Product Application Inspection**
Notes:	

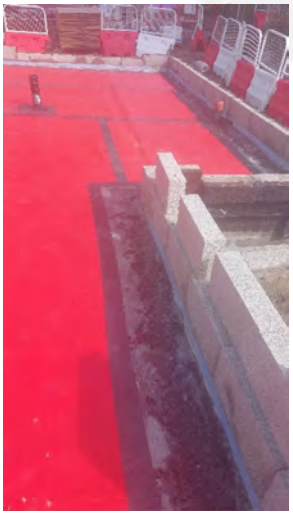
Site Inspection:

A site visit was carried out to asses the installation of the Premcrete products being applied to the Townhouse Blocks A and B to ensure installation was according to our design.

Installation was being carried out to a good standard, Hydroprufe 9000 membrane installed over beam and block floors. All joints taped and sealed as required. Service penetrations sealed using pre-formed top hats. The membrane sealed to Hydroprufe DPC which passes through the walla, taking the protection out to the external face of the inner leaf of the cavity walls. Insulation to be laid directly not the membrane and thus act as a protection layer.













Field Technician: A Martin
Date: 13/06/24



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