

**Environmental  
Geotechnical  
Specialists**



# FACTUAL REPORT

GEO-TECH-NICAL  
ENVIRONMENTAL

job number	date
site address	
written by	
checked by	
issued by	

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## Contents

		Page
1.	Introduction	1
2.	Limitations	2
3.	Fieldworks	2
3.1	Machine Excavated Trial Pits	2
4.	Geology	3
5.	Strata Conditions	3
6.	References	3

## Appendices

1.	Site Plans
2.	Trial Pit Logs
3.	Photographs



# Factual Report on a Ground Investigation

Location: **Barncliffe Mills Car Park**  
Shelley, Huddersfield, HD8 8LU

For: **G&R Estates Limited**

Report No. **C1893/21/E/2914**

Report date: **July 2021**

For and on behalf of **Rogers Geotechnical Services Ltd**

**Hattie Henshall** BSc, FGS  
Graduate Engineer

**Scott Alexander** BSc, FGS  
Geo-environmental Engineer

## 1. Introduction

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G&R Estates Limited have commissioned a site investigation into the land currently located at Barncliffe Mills Car Park, Shelley, Huddersfield. The investigation has been undertaken in accordance with the instruction from the client. This work was required in order to determine the nature of the underlying soils. This report describes the work undertaken, and presents the data obtained during the site investigation in the appendices.

As a part of this investigation the following data is presented as follows:

- Site Plans - Appendix 1
- Trial Pit Logs - Appendix 2
- Photographs - Appendix 3



## 2. Limitations

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This report has been prepared in accordance with our understanding of current best practice. However, new information or legislation, or changes to best practice may necessitate revision of the report after the date of issue. No liability can be accepted for the incorrect interpretation of any of the factual data supplied, particularly between investigatory locations.

## 3. Fieldworks

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The fieldworks were undertaken on the 7<sup>th</sup> July 2021 and included the following:

- Seven machine excavated trial pits
- Logging the soils at each trial pit location

The investigatory locations are shown on the site plan which is presented in Appendix 1 to this report.

### 3.1 Machine Excavated Trial Pits

A total of seven trial pits were excavated in order to reveal the nature of the near surface soils using a tracked 360 excavator. The soils were logged on site in general accordance with BS5930: 2015, and full descriptions are given on the trial pit records which are presented in Appendix 2.

Once excavations were completed, the trial pits were carefully re-instated with the arisings. Whilst every care was taken during the infilling process, including compacting of the infill at regular intervals with the back acting arm of the excavator, it should be appreciated that some mounding of the surface may have resulted. Moreover, the infilled soils may be subjected to settlement over time, such that a depression in the surface may also occur. Therefore, the locations of any pits undertaken in this investigation should be conveyed to the current site user, as the mounds or depressions associated with the pits may present a risk to current site operations e.g. livestock or agricultural plant equipment. Furthermore, it must be realised that the infilled pits represent an area of disturbance within the site soils, thus the soils at the pit locations may vary characteristically compared to the undisturbed ground. As such, foundations placed in this disturbed material may not perform as anticipated.



## 4. Geology

The available published geological data for the site has been examined and the anticipated geology on site is presented in Table 1 below.

Table 1: Geological Data for the Site			
Strata Type	Strata Name <sup>1</sup>	Previous Name <sup>2</sup>	Description <sup>2</sup>
Superficial Geology		None recorded on site.	
Solid Geology	Pennine Lower Coal Measures Formation	Grey Measures of Yorkshire and Nottinghamshire	Interbedded grey mudstone, siltstone and pale grey sandstone, commonly with mudstones containing marine fossils in the lower part, and more numerous and thicker coal seams in the upper part.

It should be appreciated that no superficial deposits are shown to be present beneath the site. Markers on the geological map suggest that the stratum dips locally at about 9° to the south-west.

## 5. Strata Conditions

Strata conditions that were recorded on site during the investigation are presented in Appendix 2 of this report.

## 6. References

- British Standards Institution (1990) BS1377: *British standard methods of test for soils for civil engineering purposes*, B.S.I., London.
- British Standards Institution (2015 +A1: 2020) BS5930: *Code of practice for ground investigations*, B.S.I., London.
- British Geological Survey (NERC) (2021), BGS, Keyworth.
  - Geology of Britain Viewer:  
([http://maps.bgs.ac.uk/geologyviewer\\_google/googleviewer.html](http://maps.bgs.ac.uk/geologyviewer_google/googleviewer.html))
  - Lexicon of Named Rock Units:  
(<http://www.bgs.ac.uk/lexicon/>)

<sup>1</sup> Sources: British Geological Survey (NERC) Map Sheets 86; Glossop; Solid and Drift Edition, and Geology of Britain Viewer [online resource from [www.bgs.ac.uk](http://www.bgs.ac.uk)]

<sup>2</sup> Sources: British Geological Survey (NERC) Lexicon of Named Rock Units [online resource from [www.bgs.ac.uk](http://www.bgs.ac.uk)]



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## Appendix 1

### Site Plan

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**Notes:**

Investigation positions approximated from site operative's notes.

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**Client:**

G&R Estates Limited

**Job Number:**

C1893/21/E/2914

**Project Details:**

Barncliffe Car Park, Shelley,  
Huddersfield, HD8 8LU

**Scale:** Not to scale - reference only





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## Appendix 2

### Trial Pit Logs

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# Trial Pit Log

Trialpit No

**TP01**

Sheet 1 of 1

Project Name: Barncliffe Mills Car Park

Project No.  
C1893/21/E/2914Co-ords: -  
Level:Date  
07/07/2021

Location: Shelley, Huddersfield

Dimensions (m):

2.4

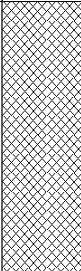
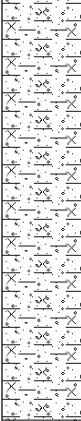
Scale  
1:25

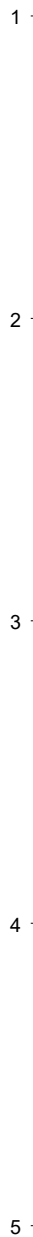
Client: G&amp;R Estates

Depth  
2.30

1.5

Logged  
HH

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.90			MADE GROUND. Loose, dark brown, silty gravelly SAND with low to moderate cobble content. Sand is fine to coarse. Gravel is sub-rounded to angular and fine to coarse of brick, plastic, wood, sandstone. Cobbles of brick and wood.
				2.30			Firm, yellowish brown mottled grey, slightly gravelly, silty sandy friable CLAY. Sand is fine to coarse and contains coal. Gravel is sub-angular to angular and fine to coarse of sandstone and limestone.
							End of pit at 2.30 m



Remarks: No groundwater. Pit stable.

Stability: Stable.





# Trial Pit Log

Trialpit No

**TP02**

Sheet 1 of 1

Project Name: Barncliffe Mills Car Park

Project No.  
C1893/21/E/2914Co-ords: -  
Level:Date  
07/07/2021

Location: Shelley, Huddersfield

Dimensions  
(m):

3.2

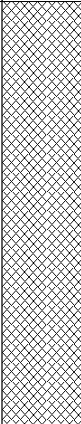
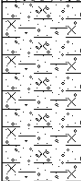
Scale  
1:25

Client: G&amp;R Estates

Depth  
2.00

1.5

Logged  
HH

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
▼				1.40			MADE GROUND. Loose, dark brown, silty gravelly SAND with high cobble content. Sand is fine to coarse and contains brick, ash and quartz. Gravel is sub-rounded to angular and fine to coarse of concrete, brick, sandstone, slate, wood, white waste material. Cobbles of concrete, brick and sandstone. Concrete slab and steel reinforcements encountered. Perched groundwater at base of unit at 1.40m
				2.00			Firm, yellowish brown mottled grey, slightly gravelly, silty sandy friable CLAY. Sand is fine to coarse and contains coal. Gravel is sub-angular to angular and fine to coarse of sandstone and limestone.
							End of pit at 2.00 m

1

2

3

4

5

Remarks: Groundwater encountered at 1.4m above the clay. Pit stable.

Stability: Stable.





# Trial Pit Log

Trialpit No

**TP03**

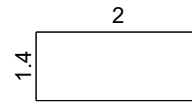
Sheet 1 of 1

Project Name: Barncliffe Mills Car Park

Project No.  
C1893/21/E/2914Co-ords: -  
Level:Date  
07/07/2021

Location: Shelley, Huddersfield

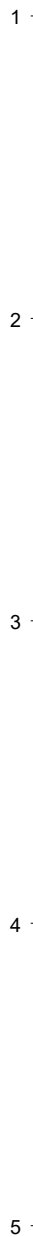
Dimensions (m):

Scale  
1:25

Client: G&amp;R Estates

Depth  
1.50Logged  
HH

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.90			MADE GROUND. Loose, dark brown, silty gravelly SAND with moderate cobble content. Sand is fine to coarse. Gravel is sub-angular to angular and fine to coarse of brick, plastic bags, sandstone, metal, wood, a hammer, rope, slate, glass. Cobbles of sandstone, brick, concrete flags, concrete.
				1.50			Firm, yellowish brown mottled grey, slightly gravelly, silty sandy, slightly friable CLAY. Sand is fine to coarse and contains coal. Gravel is sub-angular to angular and fine to coarse of sandstone and limestone.
							End of pit at 1.50 m



Remarks: No groundwater. Pit stable.

Stability:





# Trial Pit Log

Trialpit No

**TP04**

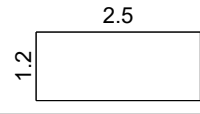
Sheet 1 of 1

Project Name: Barncliffe Mills Car Park

Project No.  
C1893/21/E/2914Co-ords: -  
Level:Date  
07/07/2021

Location: Shelley, Huddersfield

Dimensions (m):

Scale  
1:25Logged  
HH

Client: G&amp;R Estates

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.90			MADE GROUND. Loose, dark brown, silty gravelly SAND with moderate cobble content. Sand is fine to coarse. Gravel is sub-angular to angular and fine to coarse of brick, glass, sandstone, wood, plastic, white waste material, slate, a tyre. Cobbles of brick, concrete flags, sandstone.
				1.60			Firm, yellowish brown mottled grey, slightly gravelly, silty sandy friable CLAY. Sand is fine to coarse and contains coal. Gravel is sub-angular to angular and fine to coarse of sandstone and limestone.
							End of pit at 1.60 m

1  
2  
3  
4  
5

Remarks: No groundwater. Pit stable.

Stability: Stable.





# Trial Pit Log

Trialpit No

**TP05**

Sheet 1 of 1

Project Name: Barncliffe Mills Car Park

Project No.  
C1893/21/E/2914Co-ords: -  
Level:Date  
07/07/2021

Location: Shelley, Huddersfield

Dimensions  
(m):

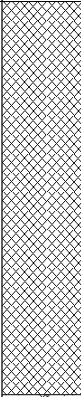
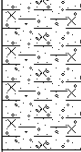
2.5

1.3

Scale  
1:25

Client: G&amp;R Estates

Depth  
1.80Logged  
HH

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				1.30			MADE GROUND. Loose, dark brown, silty gravelly SAND with low to moderate cobble content. Sand is fine to coarse. Gravel is sub-angular to angular and fine to coarse of sandstone, brick, concrete, plastic, wood, slate. Cobbles of brick, sandstone, concrete.
				1.80			Firm, yellowish brown mottled grey, slightly gravelly, silty sandy, slightly friable CLAY. Sand is fine to coarse and contains coal. Gravel is sub-angular to angular and fine to coarse of sandstone and limestone.
							----- End of pit at 1.80 m

1

2

3

4

5

Remarks: No groundwater. Pit stable.

Stability: Stable





# Trial Pit Log

Trialpit No

**TP06**

Sheet 1 of 1

Project Name: Barncliffe Mills Car Park

Project No.  
C1893/21/E/2914Co-ords: -  
Level:Date  
07/07/2021

Location: Shelley, Huddersfield

Dimensions  
(m):

2.7

1.2

Scale  
1:25Logged  
HH

Client: G&amp;R Estates

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				1.00			MADE GROUND. Loose, dark brown to brown, slightly silty, gravelly SAND with low to moderate cobble content. Sand is fine to coarse. Gravel is sub-rounded to angular and fine to coarse of sandstone, brick, slate, wood, plastic.
				1.30			Firm, yellowish brown mottled light grey and grey, slightly gravelly, silty sandy, slightly friable CLAY. Sand is fine to coarse. Gravel is sub-angular to angular and fine to coarse of sandstone and limestone. ----- End of pit at 1.30 m

1

2

3

4

5

Remarks: No groundwater. Pit stable.

Stability: Stable.





# Trial Pit Log

Trialpit No

**TP07**

Sheet 1 of 1

Project Name: Barncliffe Mills Car Park

Project No.  
C1893/21/E/2914Co-ords: -  
Level:Date  
07/07/2021

Location: Shelley, Huddersfield

Dimensions (m):


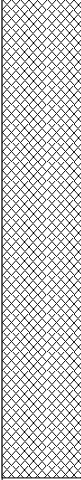
3.2

1.2

Scale  
1:25

Client: G&amp;R Estates

Depth  
1.80Logged  
HH

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.20			Loose, brown, sandy GRAVEL. Sand is fine to coarse. Gravel is sub-angular to angular and fine to coarse of sandstone and concrete. (Fill).
				1.80			MADE GROUND. Loose, dark brown, silty gravelly SAND with moderate cobble content. Sand is fine to coarse. Gravel is sub-angular to angular and fine to coarse of sandstone, brick, concrete, wire, metal, wood, plastic, slate. Cobbles of concrete, brick, wood, metal. (Fill).
							End of pit at 1.80 m

1  
2  
3  
4  
5

Remarks: No groundwater. Pit stable.

Stability: Stable.





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## Appendix 3

### Photographs

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