



## **Preliminary Coal Mining Risk Assessment**

### **Westfield Court**

Mirfield  
WF14 9PT

### **Prepared for:**

#### **Mrs Victoria Nelson**

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**EPS Project Reference:** UK24.7067

**Date Issued:** 16<sup>th</sup> August 2024

**Report Status:** Issue 1



## WESTFIELD COURT, MIRFIELD

### NON-TECHNICAL CLIENT SUMMARY

This report presents the findings of a Preliminary Coal Mining Risk Assessment which was carried out to identify potential risks posed by current or historic coal mining activity at the site and within the surrounding area in the context of the proposed development.

- The site is located within a cul-de-sac, approximately 1.0km north of Mirfield town centre, West Yorkshire. The proposed development includes the construction a single two storey residential property.
- Geology in the area is reported to comprise sandstone over the Pennine Lower Coal Measures, with no superficial deposits present. The outcrop of the Blocking Bed coal seam is mapped approximately 60m southwest of the development area.
- A consultants coal mining report obtained from the Coal Authority highlights the site is within a 'Development High Risk Area' with probable unrecorded shallow (<30m) mining present beneath the site.
- An historic ground investigation (GI) undertaken within the local area determined that the Blocking Bed coal seam has potentially been worked but has since collapsed with no voids or loss of flush observed. It is anticipated that the remnants of these workings would also be situated ~8.0m beneath the proposed development. Consequentially, the site is considered to be at high risk from shallow (<30m) mining activities.
- Due to the uncertainty of the geology beneath the site, it is recommended that an intrusive investigation, inclusive of 2No. 30.0m deep boreholes, is undertaken to establish ground condition, strength, and the presence of any historic coal mining activities.

The above points represent a simplified summary of the findings of this assessment and **must not** form the basis for key decisions for the proposed development. A thorough review of the details is contained within the following report, or alternatively get in touch and we'll talk you through it.



<b>Project Reference:</b>	UK24.7067	
<b>Title:</b>	Preliminary Coal Mining Risk Assessment – Westfield Court Mirfield, WF14 9PT	
<b>Client:</b>	Mrs Victoria Nelson	
<b>Date:</b>	16 <sup>th</sup> August 2024	
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<b>Status:</b>	Issue 1	

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Geotechnical Engineer	Senior Consultant	Director

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If third parties have been contracted / consulted during compilation of this report, the validity of any data they may have supplied, and which are included in the report, have been assessed as far as possible by EPS however, EPS cannot guarantee the validity of these data.

No part of this report, or references to it, may be included in published documents of any kind without approval from EPS.

This report and its contents, together with any supporting correspondence or other documentation, remain the property of EPS (Leeds) Ltd until paid for in full.

Where ground investigations have been conducted, these have been limited to the level of detail required for the site in order to achieve the objectives of the investigation.

The report has been written, reviewed and authorised by the persons listed above. It has also undergone EPS' quality management inspection. Should you require any further assistance regarding the information provided within the report, please do not hesitate to contact us.

The National Planning Policy Framework requires a competent person to prepare site investigation information, which is defined as a person with a recognised relevant qualification, sufficient experience in dealing with the type(s) of pollution or land instability, and membership of a relevant professional organisation. EPS considers that it fulfils these criteria and would welcome any request for staff CVs or case studies to demonstrate it.



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## 1. INTRODUCTION

In July 2024, EPS (Leeds) Ltd was commissioned by Lonie Lozano Architecture Ltd on behalf of Mrs Victoria Nelson to complete a Preliminary Coal Mining Risk Assessment (PCMRA) at Westfield Court, Mirfield, WF14 9PT ('the site'); see Figure 1.

This work has been commissioned to support the planning application for the construction a single two storey residential property.

### 1.1. Background and Sources of Information

A Coal Mining Risk Assessment is required for planning applications within designated 'Coal Mining Development High Risk Areas'. These are areas where potential land instability and other risks associated with historic coal mining are considered to be at their greatest. As part of the Coal Mining Risk Assessment process, EPS provide a Preliminary Coal Mining Assessment to provide a desk based assessment of coal related risks that may be present at the site.

For the completion of this report, the following information has been reviewed:

- Records held by the Local Authority (where available), including historic planning applications for the site and surrounding area.
- Coal Authority Consultants Coal Mining Report and Interactive Map.
- British Geological Survey, BGS 1:50,000 Series, England and Wales, Sheet 77, Huddersfield, Solid and Drift Geology Map
- Geological Memoirs: Geology of the Country around Huddersfield and Halifax - Explanation of Sheet 77
- Sub Surface North East Ltd: Ground Investigation Technical Report – 12 Westfield Court, Mirfield. Issued March 2016.
  - *Provided by client, but also available from Kirklees Council Planning Portal, Application No. 2016/44/91174/E*

### 1.2. Objectives

The objectives of this Preliminary CMRA are as follows:

- Present a desk-based review of available information on coal mining issues relevant to the site.
- Identify risks presented by historic coal mining in the context of the proposed development.
- Determine the scope of any appropriate investigation and mitigating measures required to address any risks present at the site and thereby demonstrate to the Local Authority that the scheme can be progressed in a safe manner.

### **1.3. Limitations and Constraints**

The purpose of this report is to present and assess the findings of a desk based Preliminary Coal Mining Risk Assessment with to support a planning application for the site. When examining the data collected from the referenced investigations made during the assessment, EPS (Leeds) Ltd makes the following statements:

The investigative data and interpretation of much of this data presented within this report was collected and undertaken by third parties. Whilst EPS has no reason to doubt the accuracy, these items have not been verified. EPS accepts no responsibility for errors within third party materials referenced and presented in this report.

## 2. GEO-ENVIRONMENTAL SETTING

The following section provides a summary of the information collected in relation to the site location and history.

### 2.1. Site & Location Description

Detail	Description
<b>Location</b>	The site is located within a cul-de-sac, approximately 1.0km north of Mirfield town centre, Kirklees, West Yorkshire.
<b>National Grid Reference</b>	420343, 420435
<b>Topographic Elevation</b>	The proposed development area has a sloping profile, increasing to the north, with an average elevation of approx. 87m AOD (above ordnance datum).
<b>Description of Site</b>	The development is proposed within a triangular piece of land with an approximate area of 500m <sup>2</sup> . It is currently a garden associated with the property situated adjacent down slope to the south.  It is dominated by a well-kept grass lawn, with the boundaries comprising Westfield Court road and walkway to the east, and dense vegetation on all other sides, comprising well-kept floral bushes and mature trees more than approx. 10m high.
<b>Surrounding Land Use</b>	The surrounding land in all directions is dominated by residential properties, with Knowl Park located 65m southwest.
<b>Geology</b>	Geological mapping for the area suggests the ground conditions comprise bedrock of the Falhouse Rock – Sandstone of the Pennine Lower Coal Measures (PLCM) - Mudstone, Siltstone and Sandstone, with no superficial deposits recorded. Located approximately 60m southwest is a coal seam, orientated northwest – southeast.

A plan showing the site location is provided as Figure 1, and the current site layout is detailed on Figure 2. The proposed development plan is included as Appendix A, and the Consultants Coal Mining Report is presented in Appendix B.

### 3. PRELIMINARY COAL MINING RISK ASSESSMENT

The following sections summarise the information available at the site regarding presence of coal and historic workings. All details are presented in Appendix B.

#### 3.1. Coal Authority Consultants Coal Mining Report Summary

<b>Past underground mining</b>	Black Bed coal seam - 0.76m thick, 131m deep
<b>Probable unrecorded shallow workings</b>	Yes
<b>Spine roadways at shallow depth</b>	None recorded
<b>Mine entries</b>	None recorded within 100m
<b>Abandoned mine plan catalogue numbers</b>	10527                      GCR54                      GCR57
<b>Outcrops</b>	None recorded
<b>Geological faults, fissures and breaklines</b>	None recorded
<b>Opencast mines</b>	None recorded within 500m
<b>Coal Authority managed tips</b>	None recorded within 500m
<b>Site investigations</b>	Yes – Located 47.5m northwest. Undertaken by Sub Surface North East in 2016
<b>Remediated sites</b>	None recorded within 50m
<b>Coal mining subsidence</b>	None recorded within 50m
<b>Mine gas</b>	None recorded within 500m
<b>Mine water treatment schemes</b>	None recorded within 500m

#### 3.2. Geological Overview

The online BGS mapping and the BGS 1:50,000 Series Sheet 77 (Huddersfield, Solid and Drift Geology) show that the site is situated over the Falhouse Rock, sandstone of the Pennine Lower Coal Measures (PLCM), with no superficial material present. The Falhouse Rock sandstone is noted to have an easterly dip. Furthermore, both map the Blocking Bed coal seam (discussed in section 3.5.1) to the southwest, with a general orientation of northwest – southeast.

##### 3.2.1. Falhouse Rock

The geological memoirs (Explanation of Sheet 77) note that around Mirfield the Falhouse Rock is a significant band of strong, white, fine-grained, thinly bedded sandstone. This unit forms the high ground at Knowl, with an anticipated total thickness of 30.5m. It has been occasionally quarried on a small scale for flags (sandstone flagstones).

### **3.3. Past Underground Workings**

The Consultants Coal Mining Report has identified one coal seam, the Black Bed, located directly beneath the site boundary. The depth of this seam is 131m, with an extraction thickness of 0.76m. This seam also dips to the east, corresponding with the surrounding geology as mapped within the BGS 1:50,000 Series Sheet 77. The dip rate has been noted as 2.7°.

The geological memoir (Explanation of Sheet 77) notes that this seam was the most economically important within the Lower Coal Measures, also stating that it was actively exploited from Mirfield Moor Colliery, historically located approximately 575m northwest from the proposed development area.

However, due to the depth of this seam beneath the proposed development, it is deemed unlikely to pose a risk to the proposed development.

### **3.4. Underground Shallow Workings & Mine Entries**

The Consultants Coal Mining Report and Coal Authority Interactive Map notes that there are probable unrecorded shallow (<30m) workings, and that the site falls within a 'Development High Risk Area', but that no mine entries are located within 100m of the boundary.

It is anticipated that these probable unrecorded shallow workings are associated with the Blocking Bed mapped approximately 60m southwest. This seam is discussed in more detail below, section 3.5.

### **3.5. Outcrops and Opencast Coal Mining**

The Consultants Coal Mining Report notes that there are no outcrops recorded, however, the Online BGS mapping and BGS 1:50,000 Series Sheet 77 have mapped a coal seam, the Blocking Bed, approximately 60m southwest, orientated northwest – southeast, at an approximate elevation of 82m AOD. It is assumed this seam dips to the east, and therefore that it is located beneath the site. It is likely that this seam is associated with the probable unrecorded shallow workings and development high risk mentioned above, Section 3.4.

The Consultants Coal Mining Report has not identified any historic unlicensed opencast mining in the area.

#### **3.5.1. The Blocking Bed Coal**

It should first be noted that, within the geological memoirs (Explanation of Sheet 77), issued in 1930, the Blocking Bed was considered to be within the Pennine Middle Coal Measures (PMCM). In fact, it was thought of as the strata defining base of the PMCM, marking the end of the PLCM. However, the Blocking Bed is now considered to be part of the PLCM.

The Blocking Bed, also known as Silkstone Coal in South Yorkshire, has been identified as one of the most important coals within the area being noted as fair quality, and predominantly used for household and engine purposes (geological memoirs - Explanation of Sheet 77). At Mirfield Moor Colliery, this seam was divided into three parts by two dirt bands, characteristic for this seam. The stratigraphic configuration generally comprised 0.68m coal, 1.72m seat earth (the layer of sedimentary rock underlying a coal seam), 0.31m coal, 1.23m black shale, and a final 0.12m of coal.

The outcrop of the Blocking Bed between Knowl and the River Calder is not accurately known (at the time the memoirs were written, 1930), noted to be 'mainly across park land', which correlates to its current mapping on the northeastern boundary of Knowl Park, beneath the houses along Knowl Park Gardens (Online BGS mapping and BGS 1:50,000 Series Sheet 77), 60m southwest of the site.

### 3.6. Faults

Online BGS mapping, BGS 1:50,000 Series Sheet 77, and the Consultants Coal Mining Report do not map any faults within 300m of the site boundary.

### 3.7. Site Investigations

A site investigation was undertaken by Sub Surface North East Ltd in February 2016 which consisted of two rotary holes to 30m. The site of the intrusive works was located approx. 30m northeast of the current proposed development area.

The purpose of the investigation was to determine ground conditions for a proposed two storey detached house.

The findings were generally as follows:

- Made ground: 0.00 – 1.20m
- Coal Measures: 1.20 – 30.0m
  - A band of siltstone at approx. 1.35m (varying between 1.80 – 2.60m thick), with the remainder being mudstone
- Coal seam: approx. 8.20m, thickness 0.05m
- No sandstone recorded
- No groundwater
- SPT refusals obtained at 1.0m within both locations at the boundary of the made ground and PLCM. No other SPTs were undertaken throughout the progression of either borehole.

The coal that was encountered was understood to be *"the remnants of the 2.69m thick Blocking Bed Coal"*, however, no voids or loss of flush were noted, therefore it was deemed by Sub Surface North East Ltd that the mine workings may have collapsed.

Furthermore, although the site is mapped as being underlain by the Falhouse Rock (Online BGS mapping and BGS 1:50,000 Series Sheet 77), no sandstone was encountered within this Ground Investigation (GI).

### **3.8. Other Pertinent Points of Coal Authority Report**

The property is not within an area where a notice to withdraw support has been given.

No notices have been given, under Section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

No damage notices or claims have been received for the subject property, or any property within 50 metres of the enquiry boundary since 31st October 1994.

No court orders are recorded.

### **3.9. Summary of Findings**

The assessment undertaken has determined that the historic underground mining of the Black Bed coal seam does not pose a risk to the proposed development as is noted to be 131m deep.

However, the site is located within a 'Development High Risk Area' determined by probable unrecorded shallow (<30m) workings. These are anticipated to be associated with the exploitation and extraction of the Blocking Bed coal seam, the outcrop of which is approximately 60m southwest.

The potential remnants of this seam were identified within the historic GI undertaken approximately 30m northeast, recovered as a thin, 0.05m thick, band of coal at approx. 8.20m deep. This depth correlates to the projected outcrop mapped, which is located topographically about 8.0m lower than Westfield Court, within the vicinity of the northeastern edge of Knowl Park and the gardens of the properties on Knowl Park Gardens.

Based on the local site investigation, it is anticipated that workings within the Blocking Bed may have collapsed, as there were no reports of voids, or loss of flush observed, however, since no SPTs were undertaken past 1.0m, the strength of the ground profile is uncertain. Furthermore, ground conditions between this site and the previous GI location have the potential to vary, therefore, simply because no reports of voids, or loss of flush were observed there, it is not guaranteed that this will also be true for this site.

Additionally, no sandstone was encountered within the historic GI, which may infer that none will be present beneath the proposed development area either, and that the boundary between the PLCM and Falhouse Rock is actually located further to the northeast than mapped.



To summarise, while it is uncertain if competent Falhouse Rock sandstone is located beneath the site, it is highly likely that remnant coal workings of the Blocking Bed are. Since it appears that workings have been undertaken within 10m of the surface, and may have collapsed, resulting in potential broken ground / voids, the risk of shallow mining to the proposed development is considered to be high.

#### **4. INFLUENCE OF COAL MINING AND RECOMMENATIONS**

The current proposed development includes the construction a single two storey residential property at Westfield Court, Mirfield, WF14 9PT.

Both the BGS and Coal Authority have highlighted the presence of coal bearing strata beneath the site, in the form of the Pennine Lower Coal Measures situated beneath the Falhouse Rock (sandstone). The Blocking Bed coal seam is projected to outcrop 60m southwest from the site and is anticipated to be located approximately 8.0m beneath the proposed development.

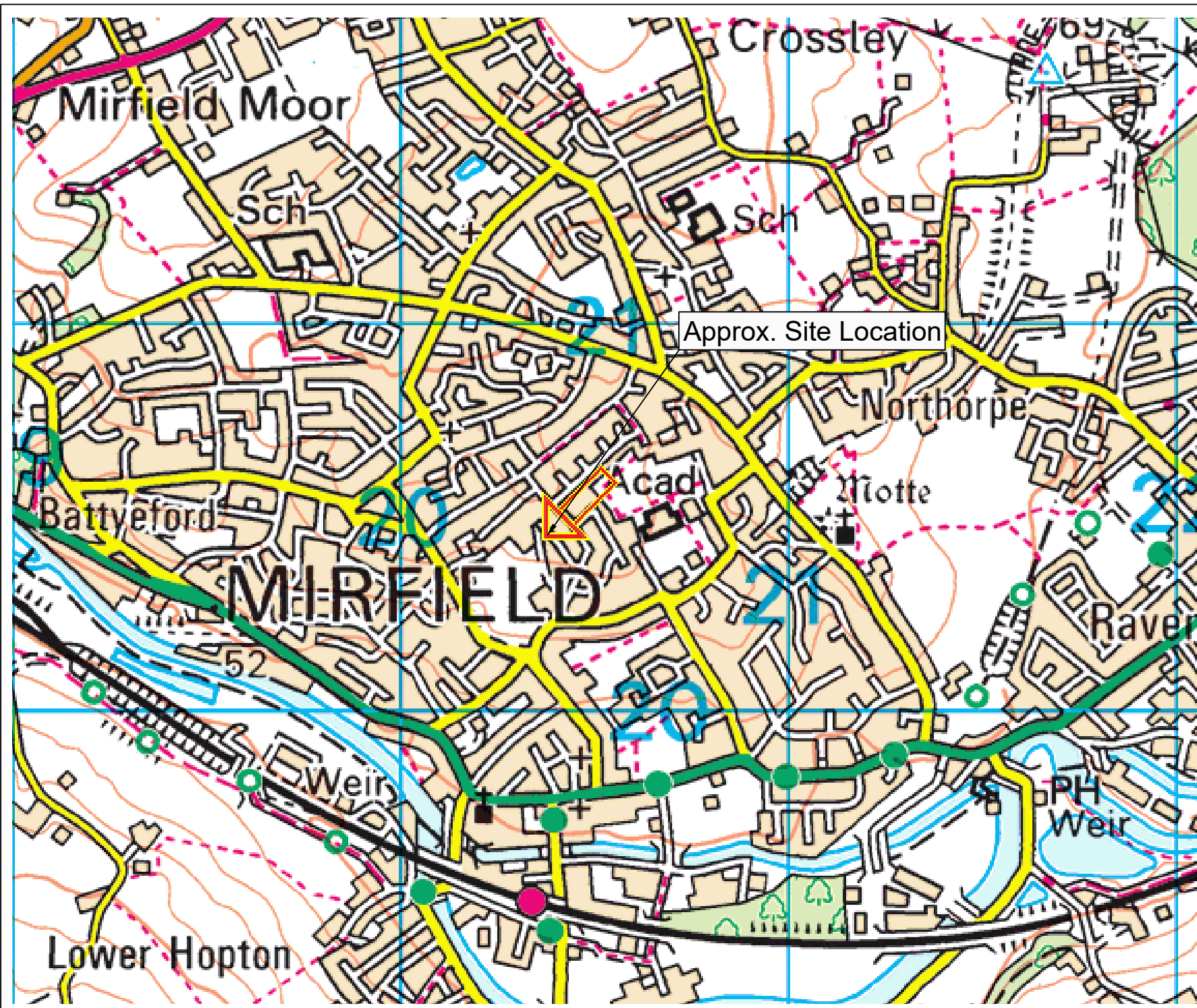
It is considered possible that this seam may have been worked, and collapsed, since no voids or loss of flush were noted within a local GI. Although ground strength parameters are unknown between 1.00 – 30.0m, SPT refusals were obtained at 1.00m indicating the siltstone at approx. 1.35m is potentially competent.

Given that the risk to the site from shallow mining (<30m) is high, it is recommended that an intrusive investigation inclusive of two 30.0m boreholes is undertaken. This will determine the ground profile, geological characteristics and determine any risks associated with historic coal mining activities. All works will have to be completed under a Coal Authority permit.

Any identified requirement for remedial works would require submission to the planning authorities and the Coal Authority for approval before completion.

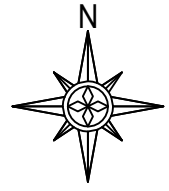


# FIGURES



KEY:  
 SITE BOUNDARY

Notes:  
 1. Base map reproduced under Crown Copyright Licence Number: 100054115



Rev	Date	Drawn	Description	CR/IC



The Geotechnical and Environmental Engineers  
[www.epstrategies.co.uk](http://www.epstrategies.co.uk)

Site:  
 Westfield Court, Mirfield, WF14 9PT

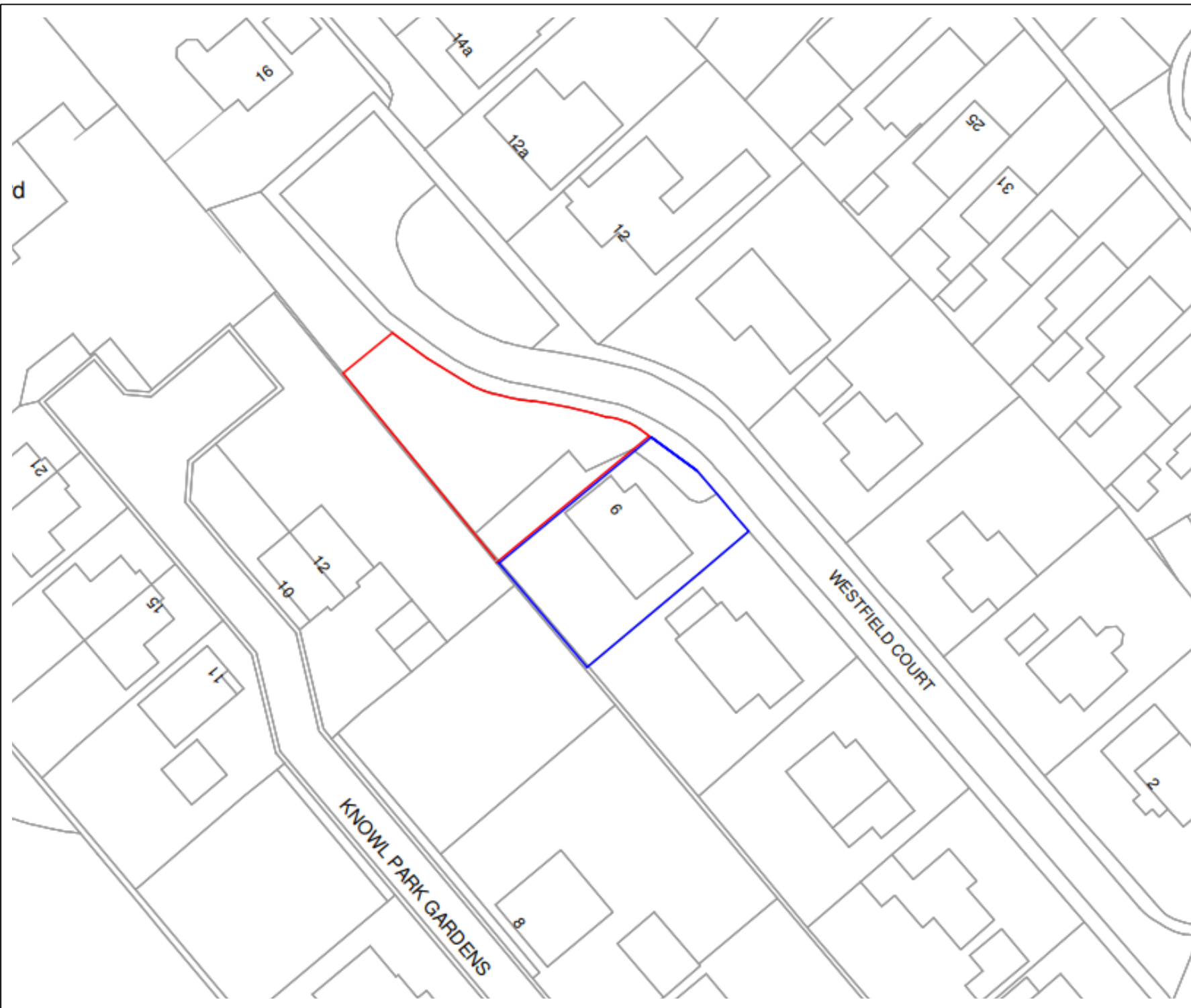
Client:  
 Mrs Victoria Nelson  
 C/O Lonie Lozano Architecture Ltd


Title:  
 Figure 01 - Site Location Plan

Surveyed:	N/A	Drawn by:	AW
Checked by:	SB	Date:	30.07.24

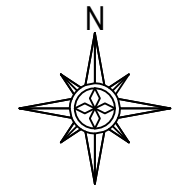
Scale:	(M Sheet)	Drawing Reference:
NTS		UK24.7067_01

Job No:	UK24.7067	Rev:	01
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KEY:  
 SITE BOUNDARY

Notes:  
 1. Image taken from file provided by the Client.



Rev	Date	Drawn	Description	CHK'd



The Geotechnical and Environmental Engineers  
 www.epstrategies.co.uk

Site  
 Westfield Court, Mirfield, WF14 9PT

Client  
 Mrs Victoria Nelson  
 C/O Lonie Lozano Architecture Ltd

Title  
 Figure 02 - Existing Layout

Surveyed:	N/A	Drawn by:	AW
Checked by:	SB	Date:	30.07.24

Scale	(M Sheet)	Drawing Reference
NTS		UK24.7067_02

Job No	Rev
UK24.7067	01



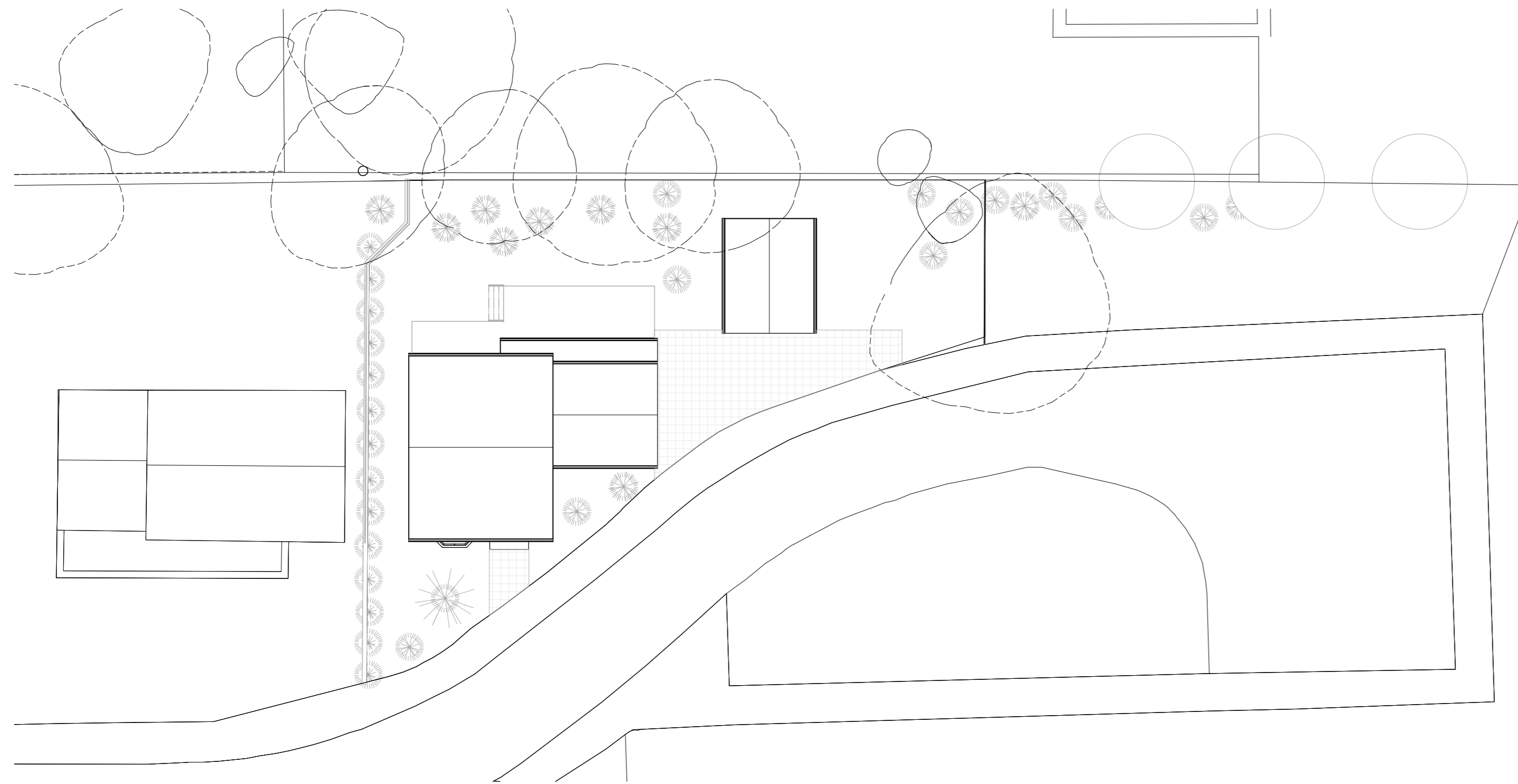
## **APPENDICES**



## **APPENDIX A**

### **Proposed Development Plan**

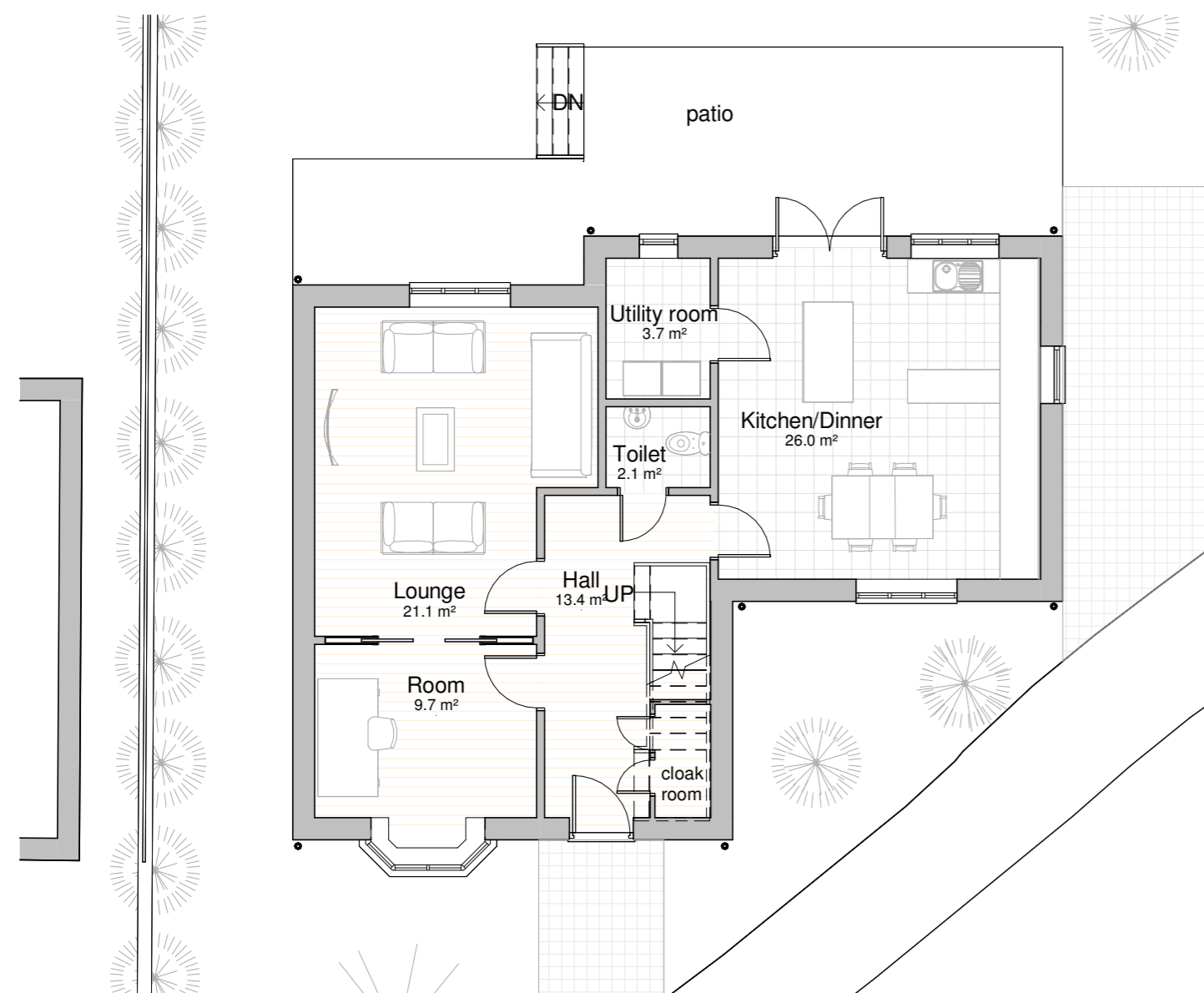
note: landscape desing is just indicative



1 Proposed Site plan

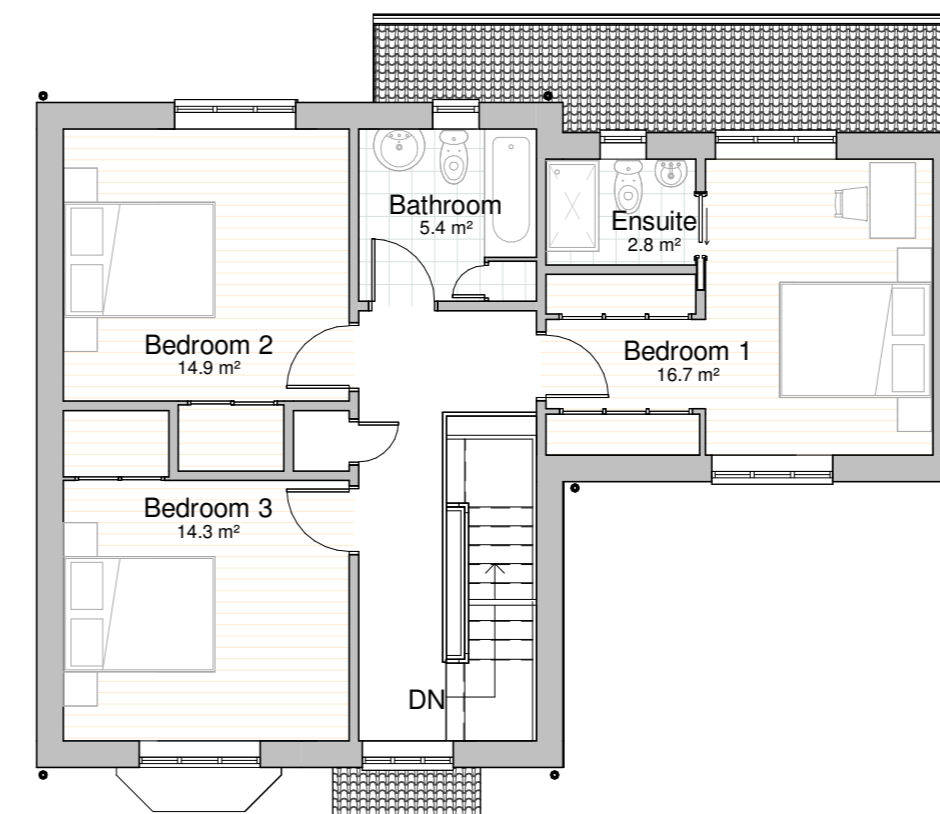
1 : 200

Rev	Date	Description	Drm	Checked
B	03.07.20 24	Boundary adjusted	JCB	SL
A	22.05.20 24	Design amended	JCB	SL



2 Proposed Ground Floor

1 : 100



3 Proposed First Floor

1 : 100

## Planning

### Mirfield

#### Proposed site and floor plans

Location:  
Land in Westfield Close  
WF14 9PT Mirfield

Client:  
Miss V. Nelson and Mr B.Pember

Job No: 175001 Drawing No: PL-02

Date: May 2024 Revision: B Scale: As indicated @ A2

Drawn: JCB Checked: SL

CAD Ref: C:\[01] Projects\175001 - Vicky Mirfield\1] CAD\1] WIP\2] REVIT\175001\_BASE.rvt

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All dimensions are to be checked on site, any discrepancies are to be reported to the Architect before work commences. Do not scale from this drawing.

This drawing is to be read in conjunction with all relevant consultants and specialists drawings / documents, any discrepancies are to be reported to the Architect before the affected work commences.

All structural components shown are indicative only. Details / calculations of structural members are to be provided by the Structural Engineer.

This drawing is copyright.



## **APPENDIX B**

### **Consultants Coal Mining Report**



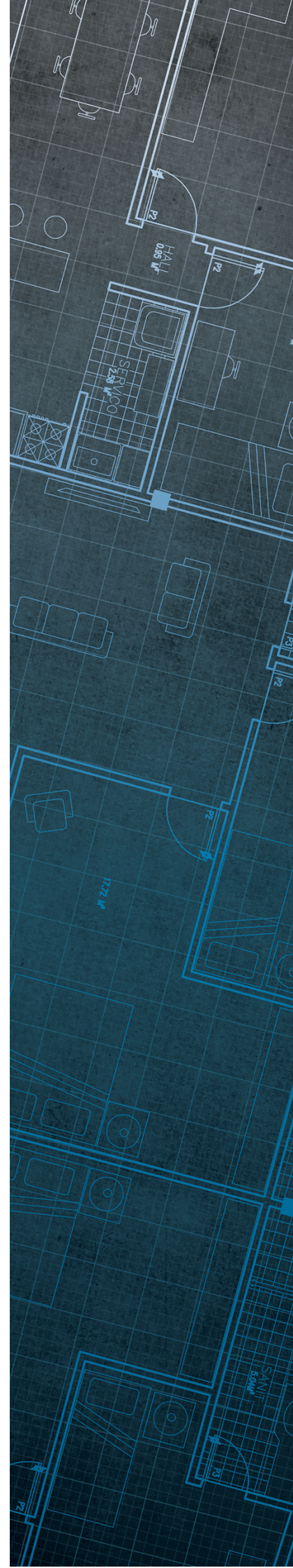
The Coal  
Authority

# Consultants Coal Mining Report

6 Westfield Court  
Mirfield  
Kirklees  
WF14 9PT

Date of enquiry: 29 July 2024  
Date enquiry received: 29 July 2024  
Issue date: 29 July 2024

Our reference: 51003440290001  
Your reference: UK24.7067



# Consultants Coal Mining Report

This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

## Client name

EPS LTD

## Enquiry address

6 Westfield Court  
Mirfield  
Kirklees  
WF14 9PT

## How to contact us

0345 762 6848 (UK)  
+44 (0)1623 637 000 (International)

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Mansfield  
Nottinghamshire  
NG18 4RG

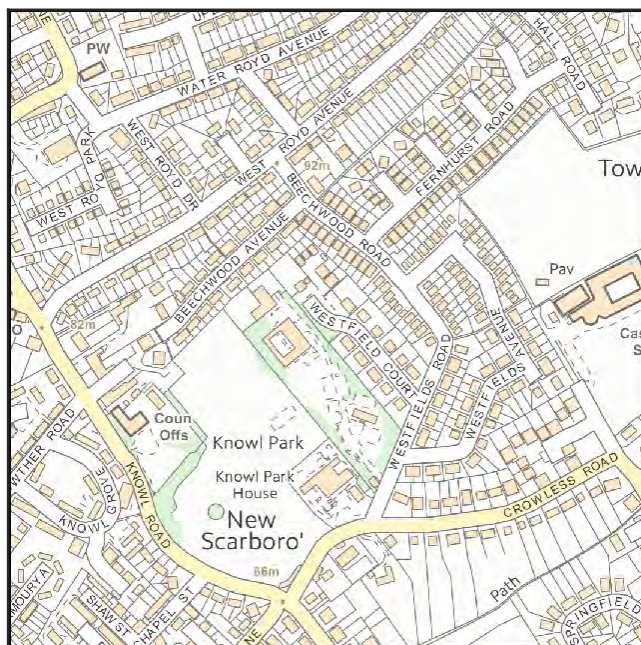
[www.groundstability.com](http://www.groundstability.com)

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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# Section 1 – Mining activity and geology

## Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	BLACK BED	Coal	6HBN	131	Beneath Property	2.7	East	76	1906

## Probable unrecorded shallow workings

Yes.

## Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

## Mine entries

None recorded within 100 metres of the enquiry boundary.

## Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

10527	GCR54	GCR57
-------	-------	-------

**Please contact us on 0345 762 6848** to determine the exact abandoned mine plans you require based on your needs.

## Outcrops

No outcrops recorded.

## Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

## Opencast mines

None recorded within 500 metres of the enquiry boundary.

## Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

## Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

### Site investigations

Distance to site investigation (m)	Direction
47.5	North-West

See Section 4 for further information.

### Remediated sites

None recorded within 50 metres of the enquiry boundary.

### Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

### Mine gas

None recorded within 500 metres of the enquiry boundary.

### Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

## Section 3 – Licensing and future mining activity

### Future underground mining

None recorded.

### Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

### Court orders

None recorded.

### Section 46 notices

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

### Withdrawal of support notices

The property is not in an area where a notice to withdraw support has been given.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

### Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

## Section 4 – Further information

The following potential risks have been identified and as part of your risk assessment should be investigated further.

### Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

**MINE GAS:** Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

### Development advice

The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.

### Site investigations

The site is within an area of previous interest. It is close to where the Coal Authority has received information relating to past site investigations.

The site requires further investigation and may influence how you approach your risk assessment.

**For further information on specific site or ground investigations in relation to any issues raised in Section 4, please call us on 0345 762 6848 or email us at [groundstability@coal.gov.uk](mailto:groundstability@coal.gov.uk).**

## Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at [groundstability@coal.gov.uk](mailto:groundstability@coal.gov.uk)**.

### Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

### Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

### Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

### Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

### Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

### Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

### Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

### **Opencast mines**

Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

### **Coal Authority managed tips**

Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

### **Site investigations**

Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

### **Remediated sites**

Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

### **Coal mining subsidence**

Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

### **Mine gas**

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

### **Mine water treatment schemes**

Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

### **Future underground mining**

Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

### **Coal mining licensing**

Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

### **Court orders**

Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

### **Section 46 notices**

Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

### **Withdrawal of support notices**



Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

### **Payment to owners of former copyhold land**

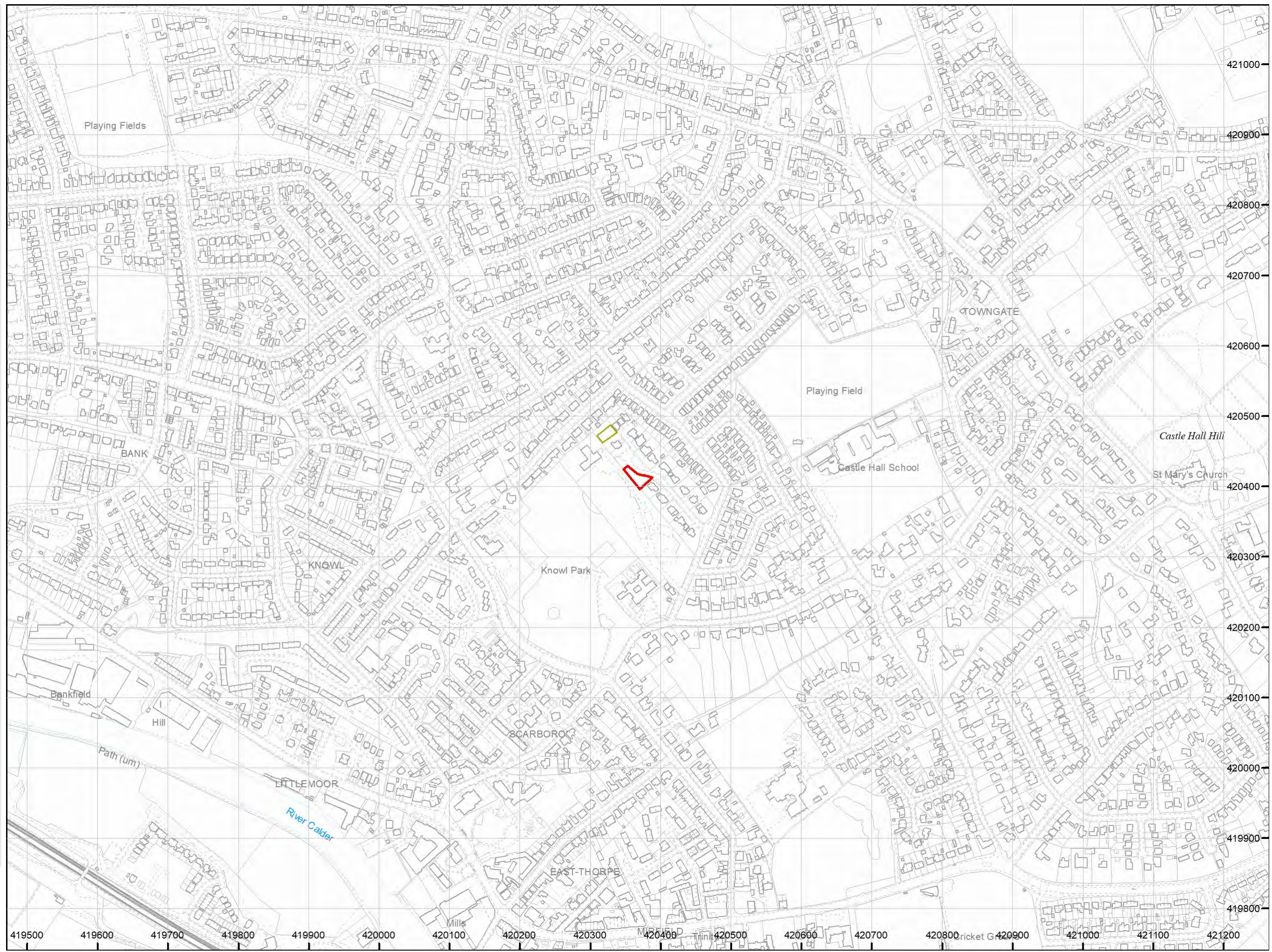
Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

The map highlights any specific surface or subsurface features within or near to the boundary of the site.

**Key**

- Approximate position of the enquiry boundary shown 
- Site investigations 

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