



RHONDDA
GEOTECHNICAL
SERVICES

COAL MINING RISK ASSESSMENT

M.T.C.B.C. PRE-PLANNING REF. PA/24/0023

NEW RESIDENTIAL DEVELOPMENT

NORTON TAVERN

HIGH STREET

PENYDARREN

MERTHYR TYDFIL

CF47 9HG

8/10/2024

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COAL MINING RISK ASSESSMENT

1. INTRODUCTION

This Coal Mining Risk Assessment (henceforth C.M.R.A.) has been produced for Utopia Design in support of a future full planning application to Merthyr Tydfil C.B.C. The application can be divided into two distinct parts. The first is the conversion of the existing Public House into six flats. The second part is for a pair of newbuild semi-detached properties within the curtilage of the former pub. M.T.C.B.C. have pointed out that the site falls within a Coal Authority Development High Risk Area. With such a classification the C.A. would become statutory consultees for any future planning application a C.M.R.A. will be needed to validate the application.

Richard Davies BSc. (Hons), MSc., F.G.S. of Rhondda Geotechnical Services has been commissioned as the competent person to prepare a C.M.R.A. of the proposed development site. The purpose of this C.M.R.A. is to gather all the available information and use it to identify any mining risks and then to quantify them. It will then suggest, if necessary, any mitigation measures to ensure that the site is, or can be made safe and stable in line with national guidelines. This will be done in line with the template and recommendations of the C.A. document Guidance for Welsh L.P.A.s (version 4, 2017).

The site is centred on grid reference 305930, 207390 and is at an elevation of approximately 255m A.O.D. The site is rectangular, measuring a maximum of 36m x 16m. The site covers an area of approximately 0.08 hectare. There are no surface watercourses. The site location and site boundary can be seen overleaf in Figures 1 and 2.

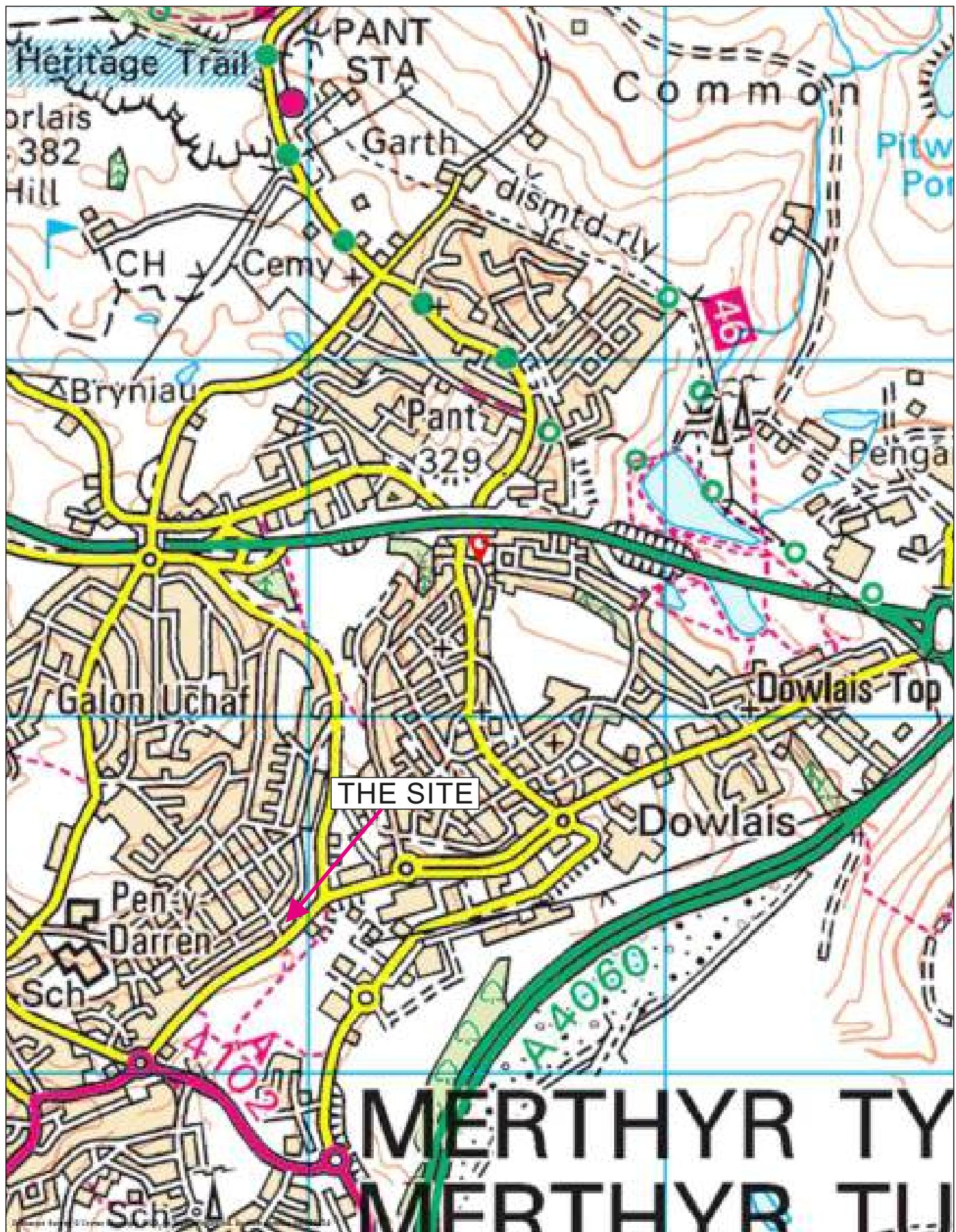


FIGURE 1
SITE LOCATION

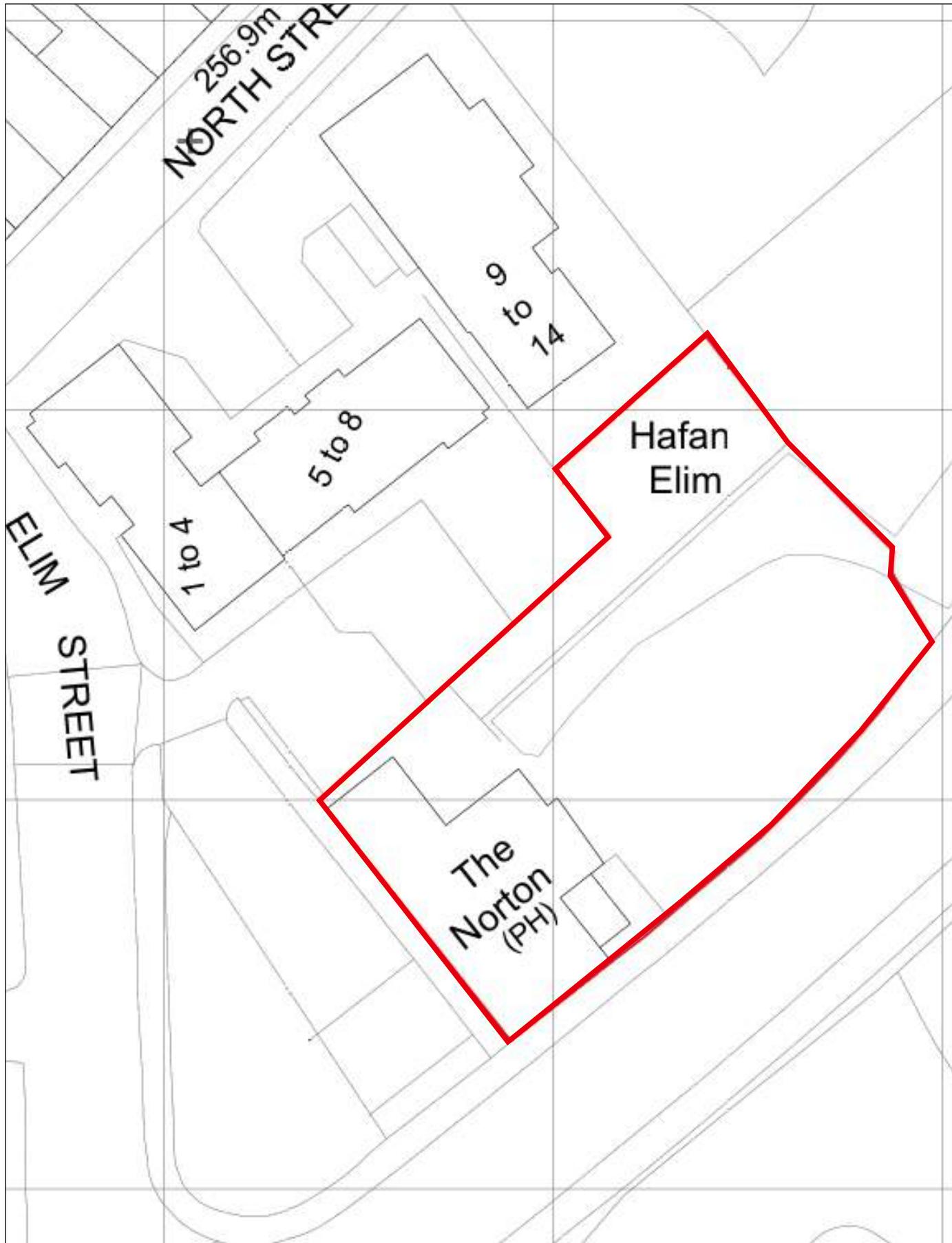


FIGURE 2
RED LINE BOUNDARY FOR THE PLANNING APPLICATION.

2. SOURCES OF INFORMATION

- a) Coal Authority Consultants Report ref MR-51003447884001.
- b) The C.A. interactive viewer.
- c) The 6" to the mile Geological Survey sheet SO 00NE (1957 revision).
- d) The Memoirs of the Geological Survey of The South Wales Coalfield, Part V, The Country around Merthyr Tydfil (1st, 2nd and 3rd editions of 1904, 1932 and 1988) and other mining archive sources.
- e) British Coal Development Plan 07/D/SO/00NE.
- f) Mine Abandonment Plans 16532, SWR2509 and SWR2510 parts A-C.

2a) The Consultants Report states that there is no past recorded underground mining beneath the site. The report goes on to say the C.A. believe there are probably shallow unrecorded workings beneath the site. The report then states that there are no recorded shallow spine roadways beneath the site and no mine entries within 100m of the site boundary. The report contains no references for any abandonment plans which may be of relevance to the risk assessment. No seam outcrops are marked near the site. There are no faults fissures or breaklines recorded. The site is adjacent to a large area of opencast mining. This can be seen marked on the SoF map in Figure 3.

In Section 2 the report states there have been no site investigations and there are no recorded surface hazards that have required remedial action within 50m. The C.A. have not received any damage notices or subsidence claims for any property within 50m since October 1994 (i.e. since the formation of the C.A. to take liability for legacy mining issues). There are no records of gas emissions requiring action within 500m. Section 3 states there are no future underground workings or licensing for any. There are no Section 46 notices or withdrawal of support notices. All these facts will feed into the later quantitative risk assessment. Section 4 highlights no further information. The Consultants Report is attached as Appendix 2.

2b) The C.A. interactive viewer contains a vast amount of information from various sources particularly on the mining data window. This often includes material not contained in the Consultants Report but which can be important to a fuller understanding of the geology and mining. An extract from the planning

window can be seen in Figure 4. Almost the entire site lies within a large sweep of Development High Risk. The mauve colour indicates this an area of suspected shallow workings. To the west the darker purple colour indicates a buffer zone above a seam outcrop. South and east of the site is a huge area coloured grey indicating opencast mining with the blue colour showing recorded shallow mining.

In order to fully understand why sites have a high risk status it is informative to study the Coal Mining Data window. This window is far superior to the planning window as it is at a larger scale. There are multiple datasets which can be turned on and off. An extract from the Mining Data Window is reproduced as Figure 5 overleaf. For clarity only two sets of data are turned on in Figure 5- seam outcrops and mine entries. A small number of outcrops have had the seam codes added by the author in Figure 5. The seam codes are ascending to the southeast, as are the contour lines. The outcrops are sub-parallel to the contours. This would indicate the strata are dipping to the southeast. The identities of the seams southeast of the site are not important as they cannot underlie the site and hence can have no effect on ground stability. West of the site a solitary outcrop with the seam code SW0101. This is the Garw Vein in the C.A. Seam Code Directory. The name Garw Vein is unhelpful as there is an Ironstone Vein with this name closely associated with the coal seam. The Garw *Seam* has the potential to underlie the site at an unknown depth. This is the reason the site is within a development high risk zone.

Southeast of the site the multiple mine entries are mainly adits orientated southeast or associated shafts. There are none of relevance to the site. There are five mine entries west of the site near the Garw outcrop. Three of these are shafts. Two are adits, but their orientations (338° and 355°) are to the north, rather than toward the site.



FIGURE 3
SUMMARY OF FINDINGS MAP FROM THE CONSULTANTS REPORT

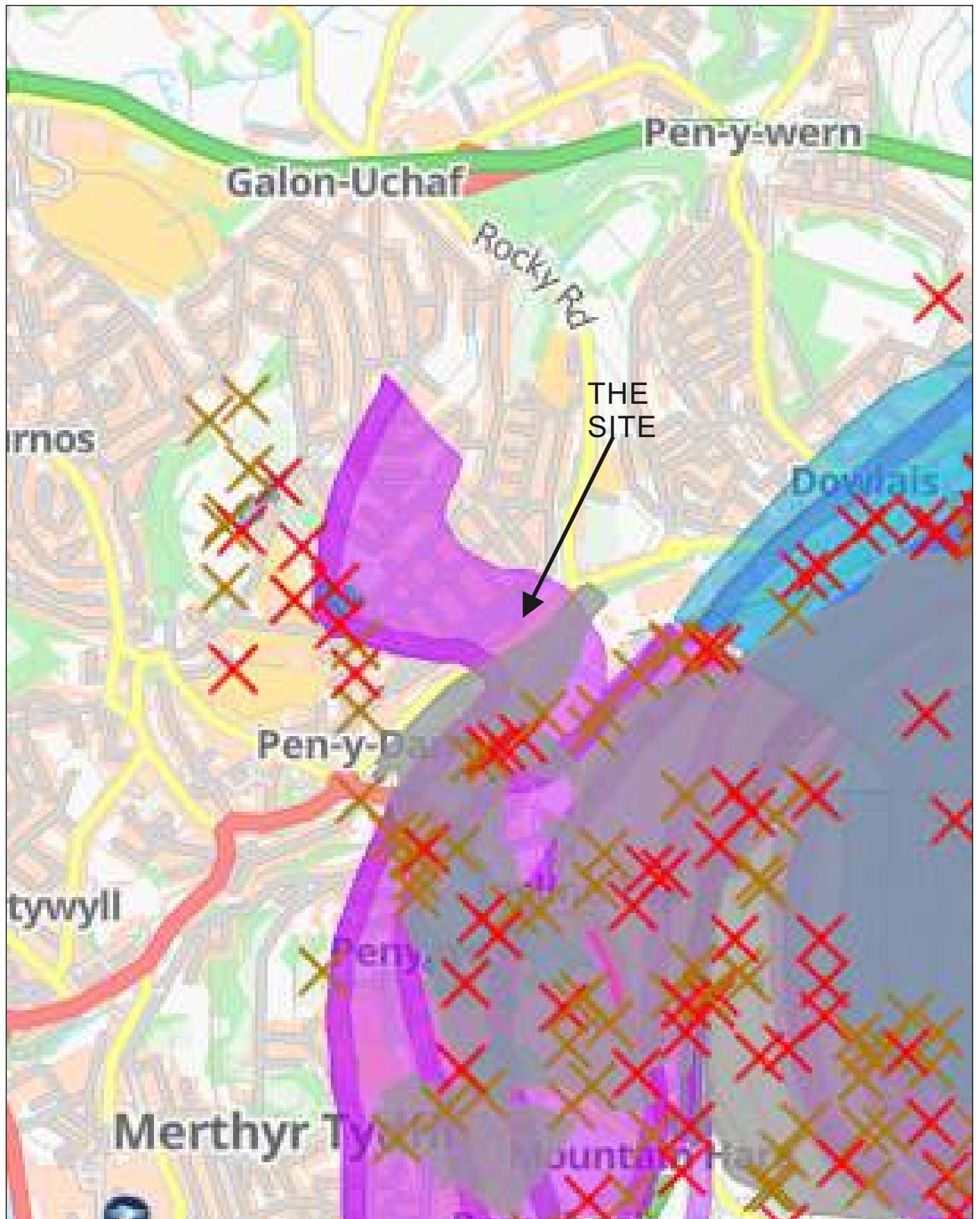


FIGURE 4

COAL AUTHORITY INTERACTIVE VIEWER, PLANNING WINDOW. COLOURED AREAS ARE DEVELOPMENT HIGH RISK.



FIGURE 5
C.A. VIEWER, MINING DATA WINDOW. RED CROSSES ARE
MINE ENTRIES, BROWN LINES ARE COAL SEAM OUTCROPS

2c,d and e) The six inch to the mile Geological Survey sheet SO 00NE covers the area around the site. An extract of the map has been reproduced as Figure 6 overleaf. A section of the stratigraphic column from the map is shown in Figure 7 with the approximate site level marked. It is always very useful to study the survey sheets in conjunction with the Memoirs. Used together, the six-inch survey sheets and the Memoirs are an invaluable source of much detailed geological information on the area. Much of this has been obtained from mining records. Due to the very high economic importance of the area, extensive government funded geological surveys have been carried out in the past. These were completed in 1845, 1899 and 1954 respectively. Very little information on historical coal mining in the area is missing.

In Figure 6 the large area of cross hatching southeast of the site represents Made Ground from very extensive surface mining of Ironstone and Coal together with the Dowlais Great Tip. The Survey and the base map predate the opencast mining marked in Figures 3 and 4. The opencast mining will be dealt with later in the report. This section is purely concerned with the underlying geology. In contrast to Figure 5, only one coal seam outcrop is shown in the entire Lower Coal Measures. This is the Gellideg. The reason for this is simplicity. The area had been covered in spoil and industrial infrastructure for over 130 years at the time of the map revision (1967-68). The Memoirs make it clear that there are other closely spaced coal seams underground including the Five Foot, Seven Foot, Lower Four Foot and Yard. Measured dips of 7°-10° are all to the southeast as was inferred from the C.A. data. This dip is further confirmed by underground contours in the Nine Foot seam south of the extract shown in Figure 6. This means all these coal seams are irrelevant to the risk assessment.

The Garw Seam is the lowest economic coal in the South Wales Coalfield. The C.A. reference to the Garw *Vein* is unhelpful and confusing as there is an Ironstone vein with the same name just above the coal. The Ironstone was formerly much more important than the coal. The Garw Seam was relatively unimportant in the Merthyr area because of the wealth of superior coal seams above it. The seam thickness is given as 1'3" (0.38m) at Dowlais in the 2nd edition of the Memoirs. The Memoirs state "the coal is generally too thin to be worked at present". This statement is due to the dire economic circumstances at the time of publication (1932) rather than the practicalities of working the seam. The seam had been extensively worked in the past in the Merthyr area, often in association with the Ironstone veins just above it. Many of these workings are unrecorded. The author has previous experience of encountering unrecorded workings in the seam elsewhere in Merthyr. The outcrop is not shown in Figure 6 as it is covered in very old housing stock. The British Coal Development Plan is the origin of the outcrop data on the Interactive Viewer. Where the C.A. Data and the Geological

Survey differ, it is useful to examine the British Coal Development Plan at first hand. Figure 8 is an extract from the plan. The Garw Seam outcrop is shown running west of the site. Unsurprisingly, the outcrop pattern is identical to the Viewer, looping round the small valley of the Nant Morlais that runs south of the site. The seam is marked as conjectural due to the fact there is no physical evidence remaining of its existence.

It is not in dispute that the Garw Seam must be present beneath the site, nor that the Gellideg outcrops above the site. The latter has extensive recorded workings close to the site. Between the two seams are multiple Ironstone Veins. These were formerly enormously important. They were extensively mined to supply the voracious demand of the four huge Ironworks that made Merthyr the foremost producer of Iron in the world. The site lies between, and close to two of these- The Penydarren Works to the southwest and the Dowlais Works to the northeast. The 2nd Edition of the Memoirs acknowledges that the Ironstones were no longer of any economic importance in 1932, and that they had been worked to exhaustion in the previous century. The strata sequence is given as follows:-

GEELIDEG (COAL)

SPOTTED

YELLOW

RED

BLACK

BLUE

BIG

CNAPIOG/LUMPY

GARW

GARW (COAL)

ROSSER VEINS

Some of these will certainly underlie the site. The mine entries recorded west of the site are probably connected to working of the Rosser Veins. The Memoirs show the Rosser Vein sequence to be 25'10" (7.87m) thick at Dowlais. The significance of the Ironstone veins possibly underlying the site will be discussed in Section 3.

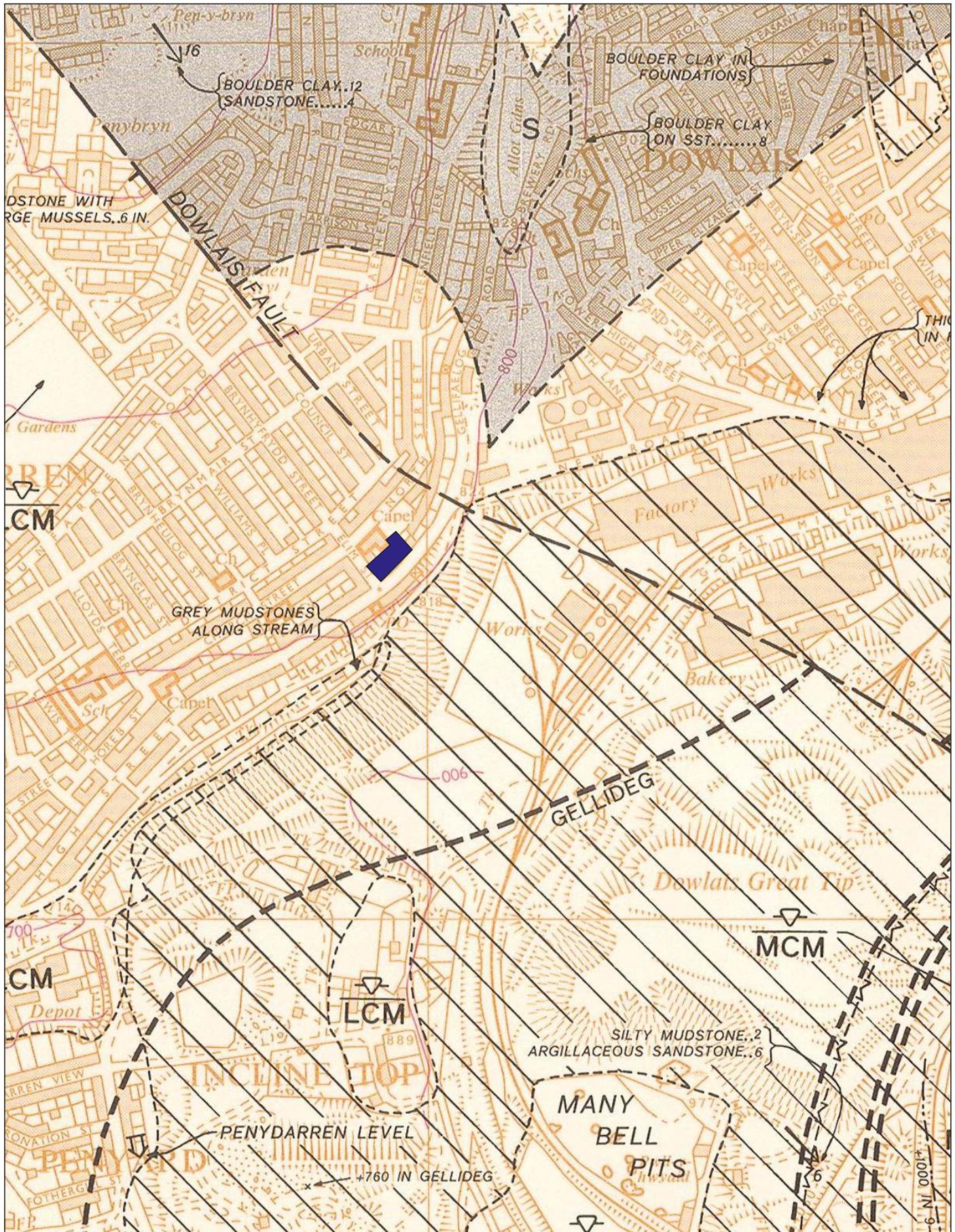


FIGURE 6
SECTION OF GEOLOGICAL SURVEY SHEET SO 00NE.
THE SITE IS HIGHLIGHTED IN BLUE.

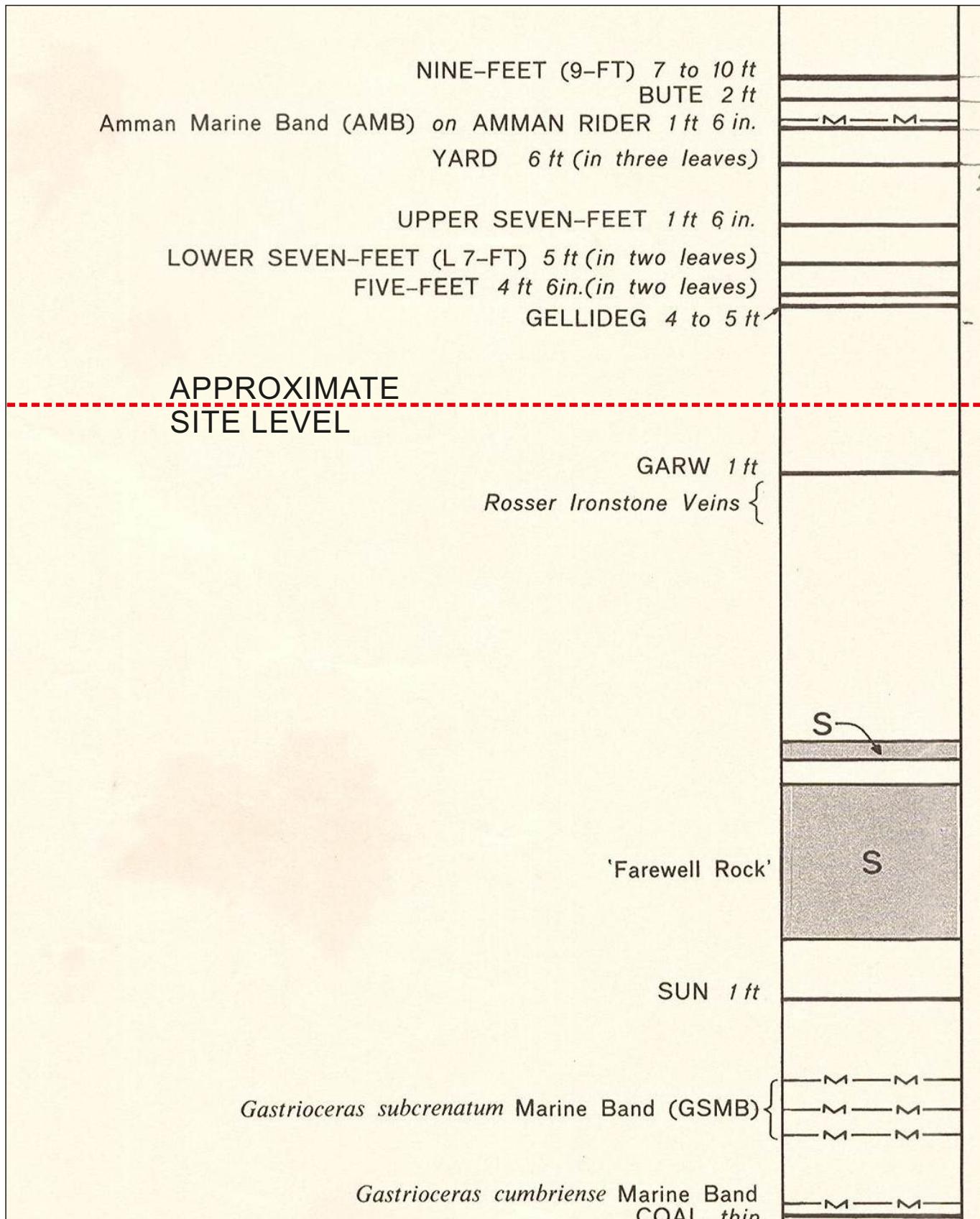


FIGURE 7
SECTION OF THE STRATIGRAPHIC COLUMN FROM SO 00NE.
THE APPROXIMATE SITE LEVEL IS MARKED.



FIGURE 8

B.C.D.P. 07/D/SO/00/NE WITH THE SITE HIGHLIGHTED IN ORANGE

2f) The Consultants Report didn't list any mine plans of relevance to the site. The author holds multiple plans of Ironstone Workings in the Dowlais and Penydarren Area. The value of these plans to a risk assessment is limited. They mainly show underground roadways and water drainage levels. The surface features shown are very limited and in many cases are very hard to link to the present day built environment. Figure 9 is an example. This is a small section of one of the three sheets of SWR2509. This is not meant to be site specific. It is included here to demonstrate the extent of Ironstone workings in the past. The full map sheets show roadways in fifteen different Ironstone Veins. Many of the veins in the map key are stratigraphically above the site, but several of them will certainly be present beneath the site. The Lumpy Vein is another name for one of the Garw Ironstone Veins. None of the plans show the extent of any workings in these veins. Ironstone working is quite different to coal working and will be further discussed in Section 3.

Figure 10 shows a section of plan 16532. This is of Phase 1 of the East Merthyr Reclamation Scheme. This was one of the final opencast projects in South Wales supervised directly by British Coal. The workings are relatively shallow (<40m) and were intended to remove coal (and possible shallow workings) prior to redevelopment. The main target was the Upper and Lower Little Seam and the three Lower Four Feet Seams. These are the local equivalents of the Lower Seven Foot and Five Foot Gellideg Seams respectively which locally coalesce into over 5m of coal with only thin dirt partings. It is not known if the second phase ever went ahead, but it is thought likely. The Phase 2 land is now the site of an industrial estate. The point of including the plan is to show that the areas marked as opencast on the SoF map, and the Viewer show the total land area within British Coal ownership and not the extent of excavations. These always had a safe batter angle to support existing infrastructure such as the A4102 High Street which separates the site from the opencast boundary.

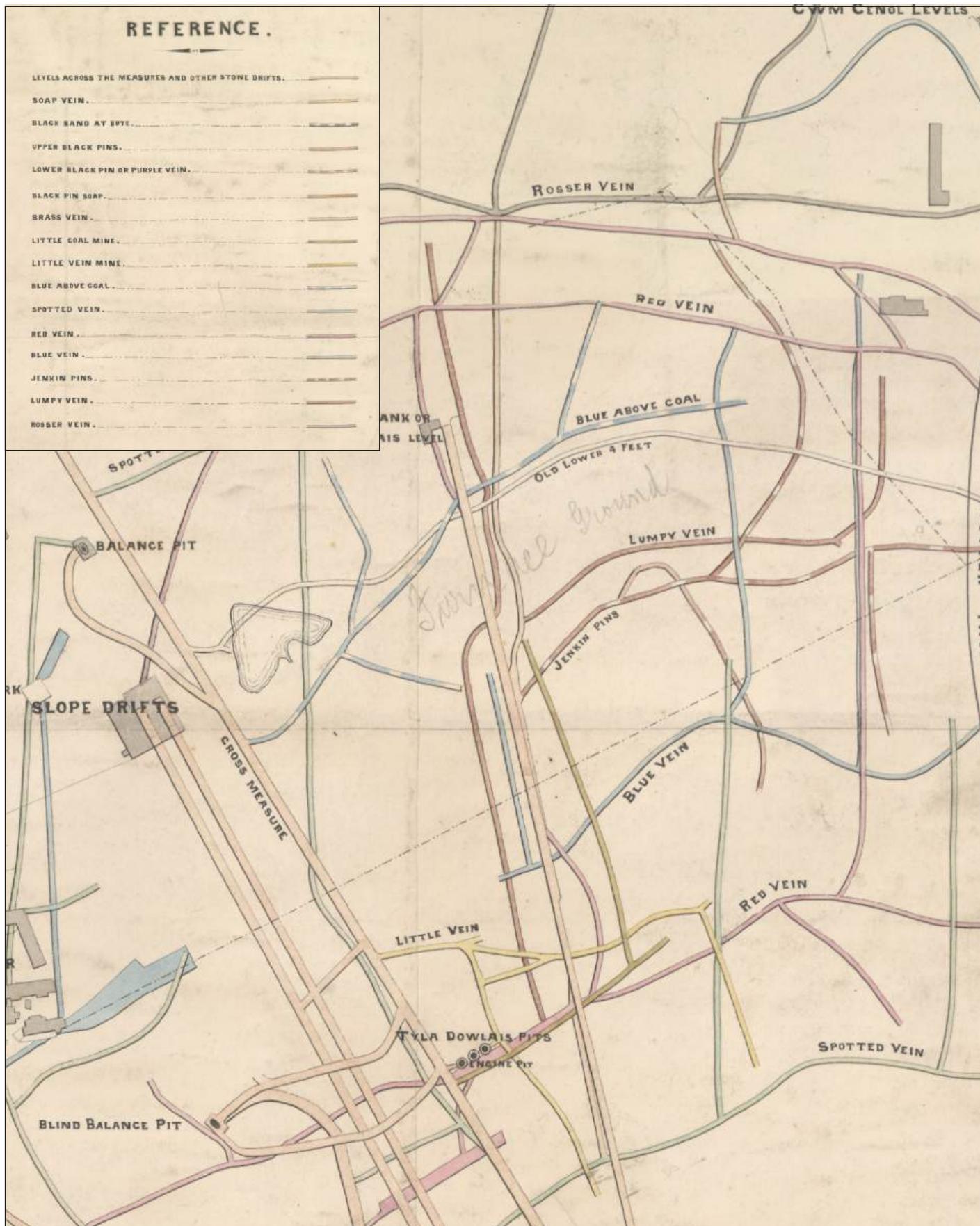


FIGURE 9
SECTION OF MINE PLAN SWR2509 PART A.

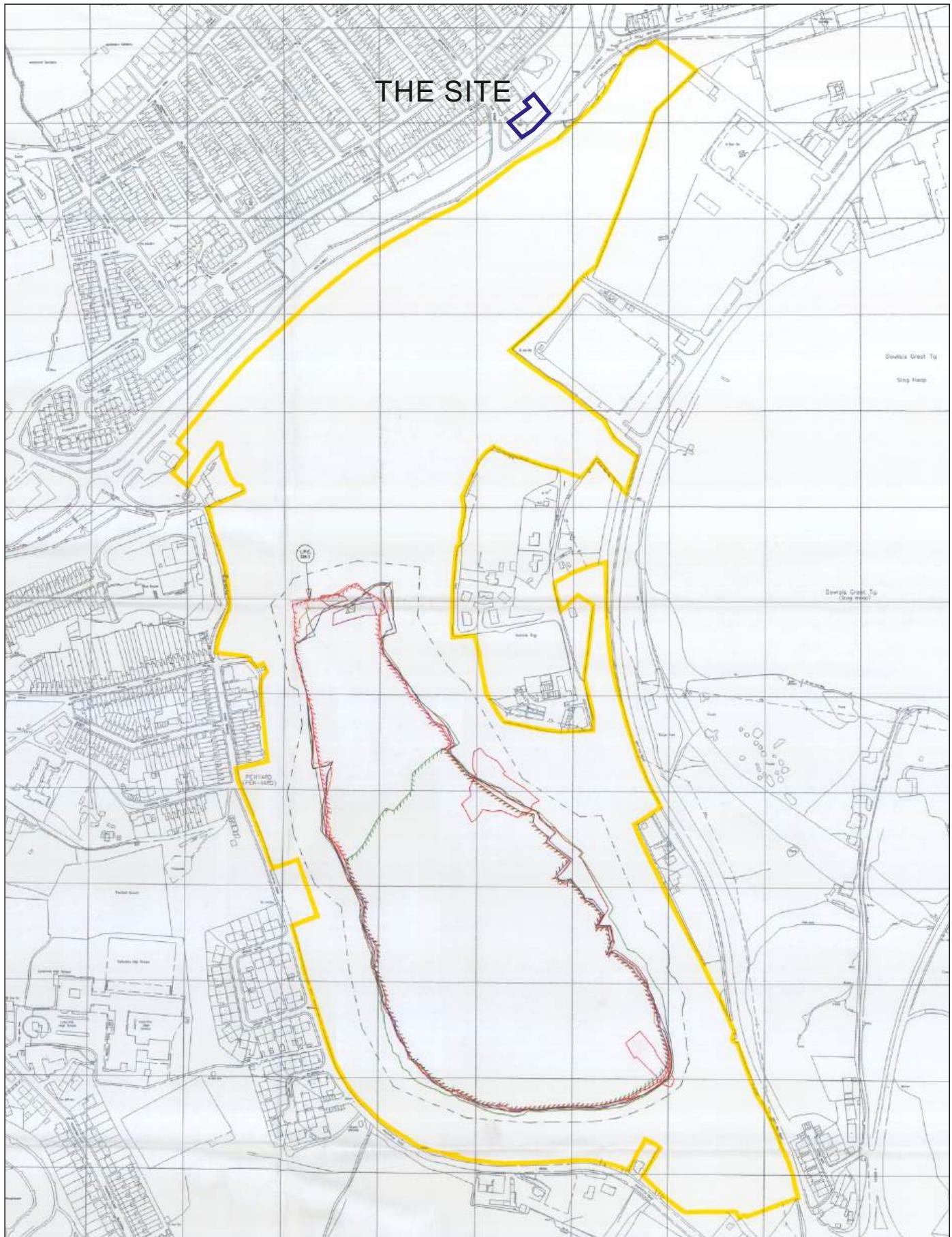


FIGURE 10
SECTION OF OPENCAST PLAN 16532 WITH THE SITE HIGHLIGHTED.

COAL MINING ISSUE	YES	NO	R.A?
SHALLOW RECORDED WORKINGS		X	
SHALLOW UNRECORDED WORKINGS	X		X
MINE ENTRIES		X	
FISSURES		X	
GAS EMISSIONS	X		X
SURFACE HAZARDS		X	
SURFACE MINING		X	
FUTURE MINING LICENSE		X	

3. SITE SPECIFIC COAL MINING RISKS

From the table above it can be seen that only one major issue requires a risk assessment for this site. That is the presence of shallow unrecorded workings under, or very close to the site. If coal workings are found to underlie part of the site(as opposed to ironstone workings) then the issue of risk from mine gases should also be addressed.

To first briefly deal with the issues marked NO on the table:-

- a) There are no known records of workings in the Garw Coal Seam. There are no known records of Ironstone workings in the veins above or below the Garw Coal Seam
- b) There are no known mine entries close the site
- c) The Consultants report lists no fissures, faults or breaklines.
- d) The C.A. report states there have been no recorded gas emissions within the area surrounding the site but see above regarding coal workings.
- e) There has been extensive surface mining (opencast) close to the site in the past. This was carried out by the British Coal under well-regulated conditions. The mining was topographically and stratigraphically higher than the site. It has been reinstated and will have no effect on ground stability at the site.
- f) There are no licenses for future mining in existence.

The Consultants Report states there are no recorded workings beneath the site, but they believe there could be unrecorded workings. Given the industrial

history of the area and the underlying geology, this is totally believable. It is the authors opinion that these are more likely to be Ironstone workings than workings in the Garw Coal. The depth to the Garw Seam beneath the site is totally unknown. This means the depth to the associated Ironstone veins is also unknown. Ironstone workings differ significantly from coal workings in the fact that the mineral being sought was very thin compared to workable coal seams. In the Dowlais/Penydarren area the Memoirs quote an average of 6"-8" (150mm-200mm) in a working height of 4'-5' (1.22m-1.52m). Wherever possible, two veins were taken at the same time. Mining Ironstone required the removal of large amounts of waste material. In a 1.2m-1.5m high working as much as 85% of the working face was waste. To remove this to the surface would involve a huge amount of labour and would be completely uneconomic. Instead the Ironstone was removed and the waste placed behind the working face. This process was known as backstowing. Although not an engineered backfill, this has the effect of drastically reducing subsidence and void migration when compared to shallow coal mining.

4. MITIGATION STRATEGY

The only way to establish the stability of the site beyond doubt is to carry out an intrusive site investigation. This would need to comprise of rotary boreholes drilled under the Coal Authority's permit system. The design of the investigation should be done by a suitably qualified and experienced person. The depth of the boreholes will be controlled by site conditions. The object being to drill to prove 30m of rock cover over any potential workings whether Coal or Ironstone.

5. CONCLUSION

This risk assessment has presented evidence from comprehensive research that there is a residual risk to ground stability at the site. It is the author's opinion that it is unlikely that this is posed by coal mining legacy issues at the site, but more likely by Ironstone Mining. Any workings beneath the site may not necessarily pose a threat to ground stability. The very limited extraction thickness may well have already collapsed in the case of Coal Workings. Ironstone workings will have been backstowed. This together with roof and floor squeeze may make the risk from void propagation negligible. These scenarios may not apply in the case of permanent roadways, although they will be approaching 200years old. The risk of shallow workings beneath the site needs to be quantified. This cannot be done by a desk study alone but will require an intrusive site investigation. There is no reason for the Coal Authority to object

to planning permission being granted for the proposed development providing an intrusive investigation and Validation Report is a condition of planning. Any ground engineering or specialist foundations necessary to remove any threat of ground instability at the site will be informed by the results of the investigation and cannot be speculated on at present.

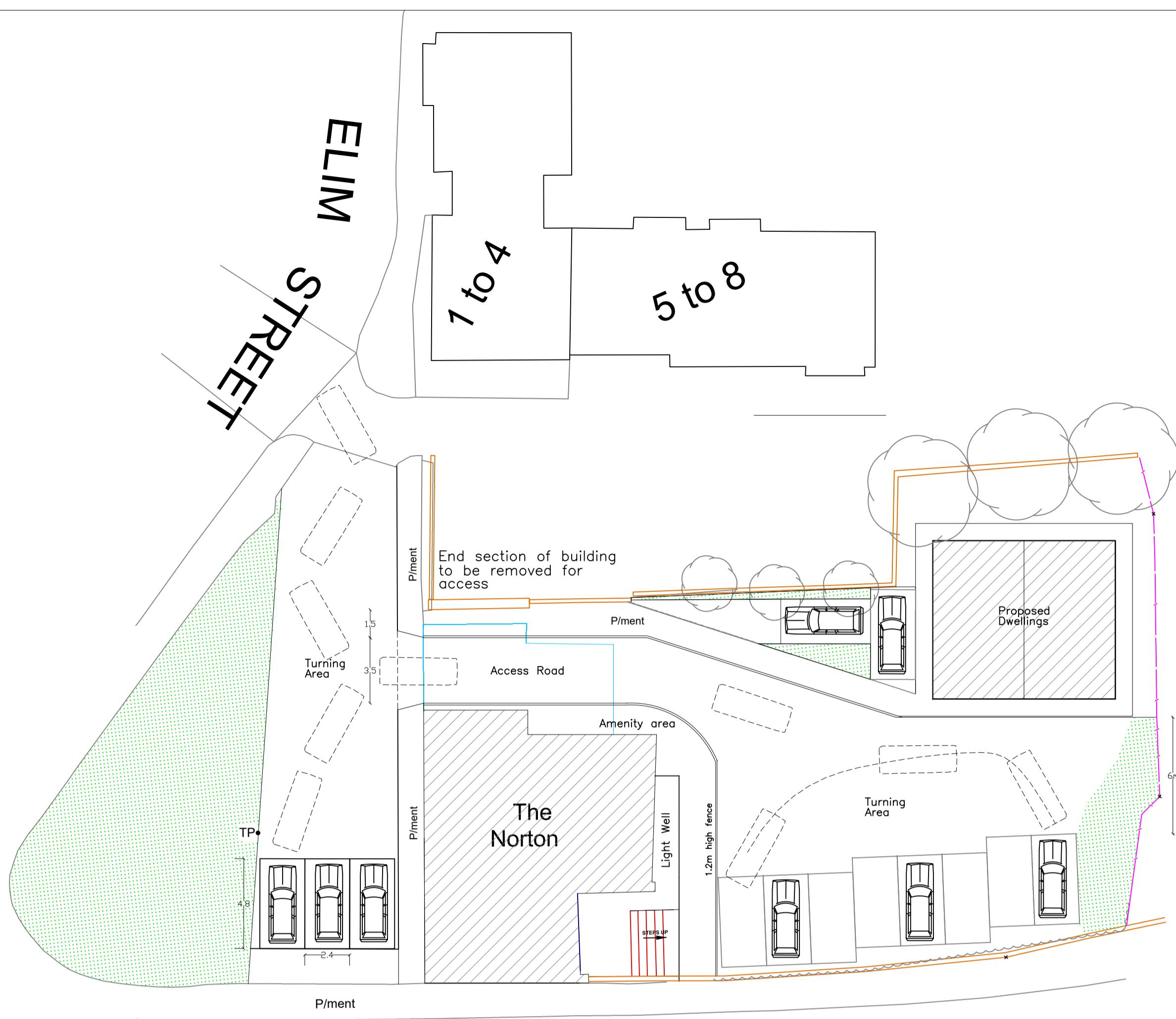
Richard Davies BSc. (Hons), MSc., F.G.S.

8/10/2024

APPENDIX 1

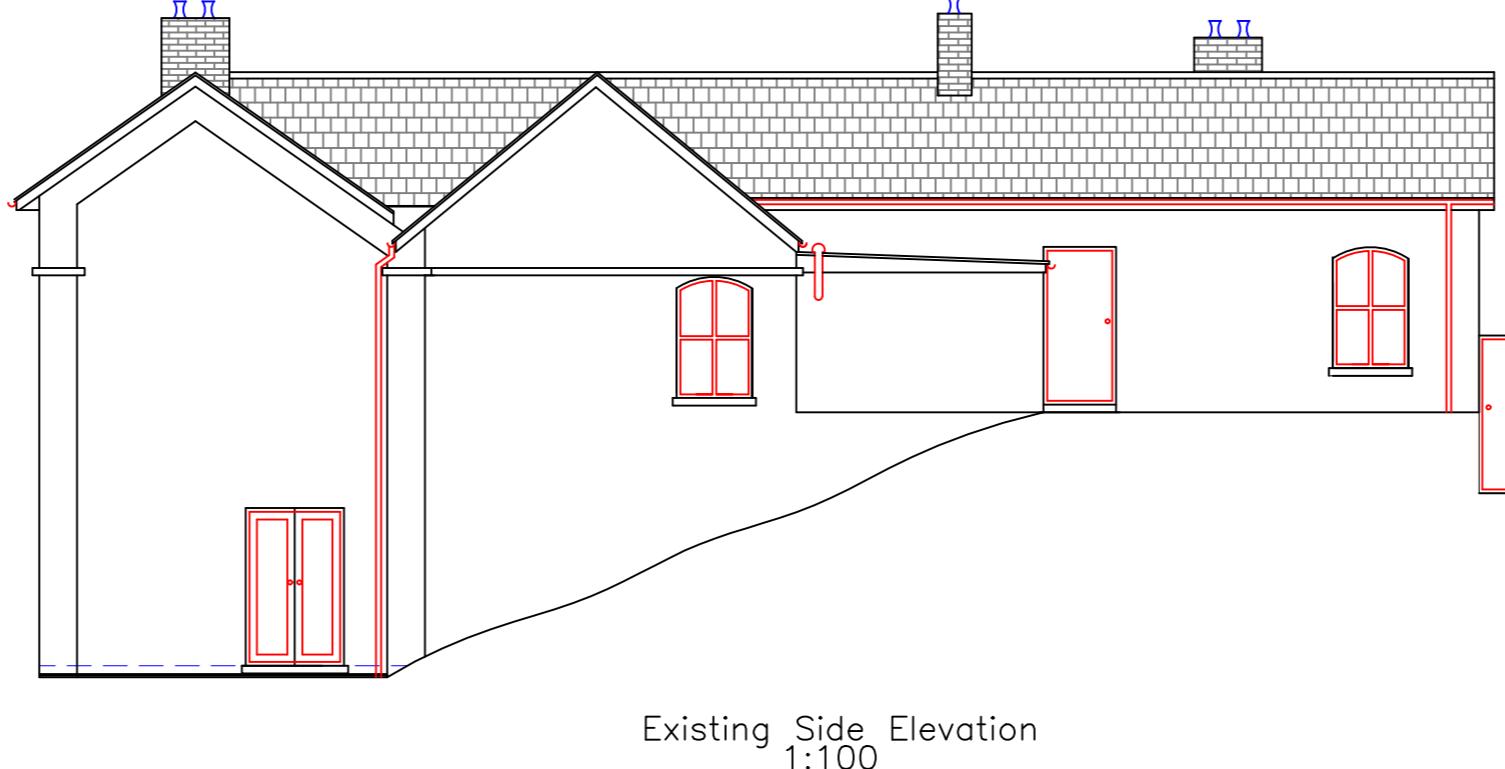
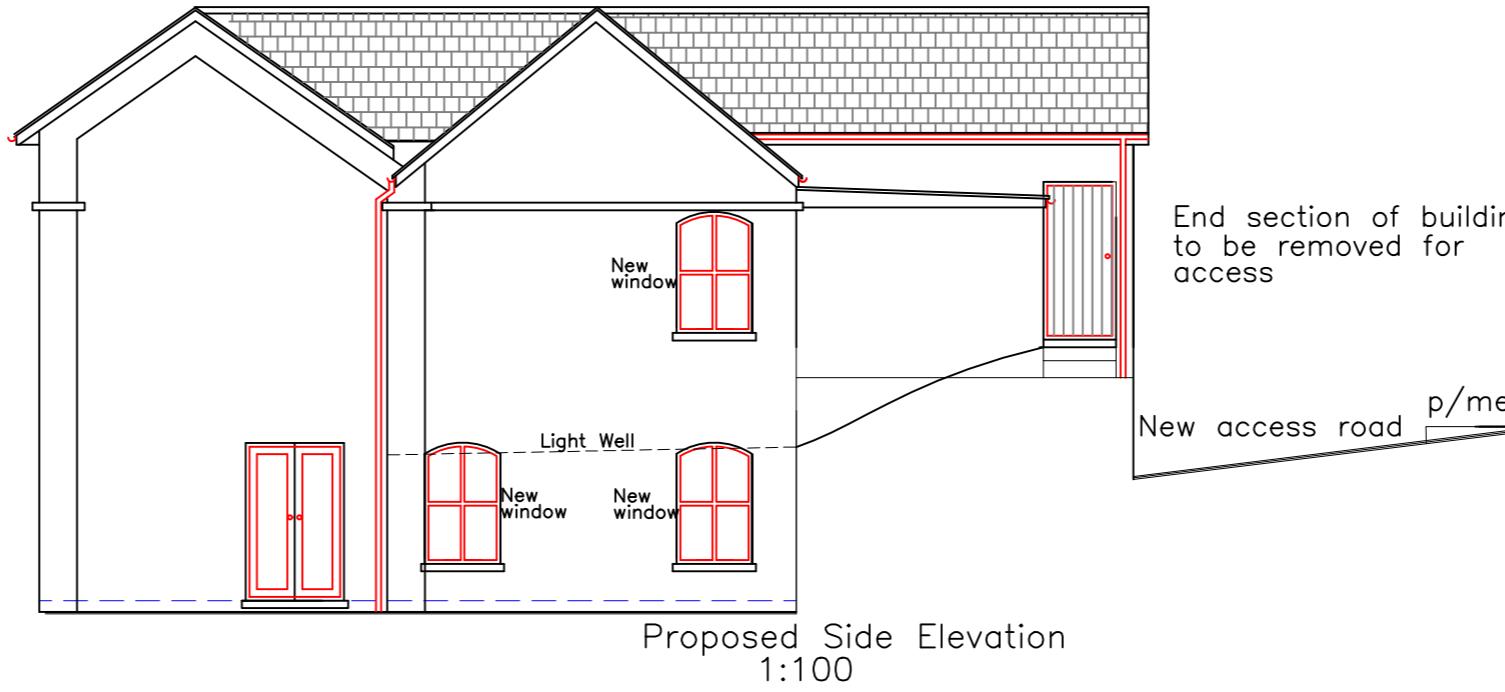
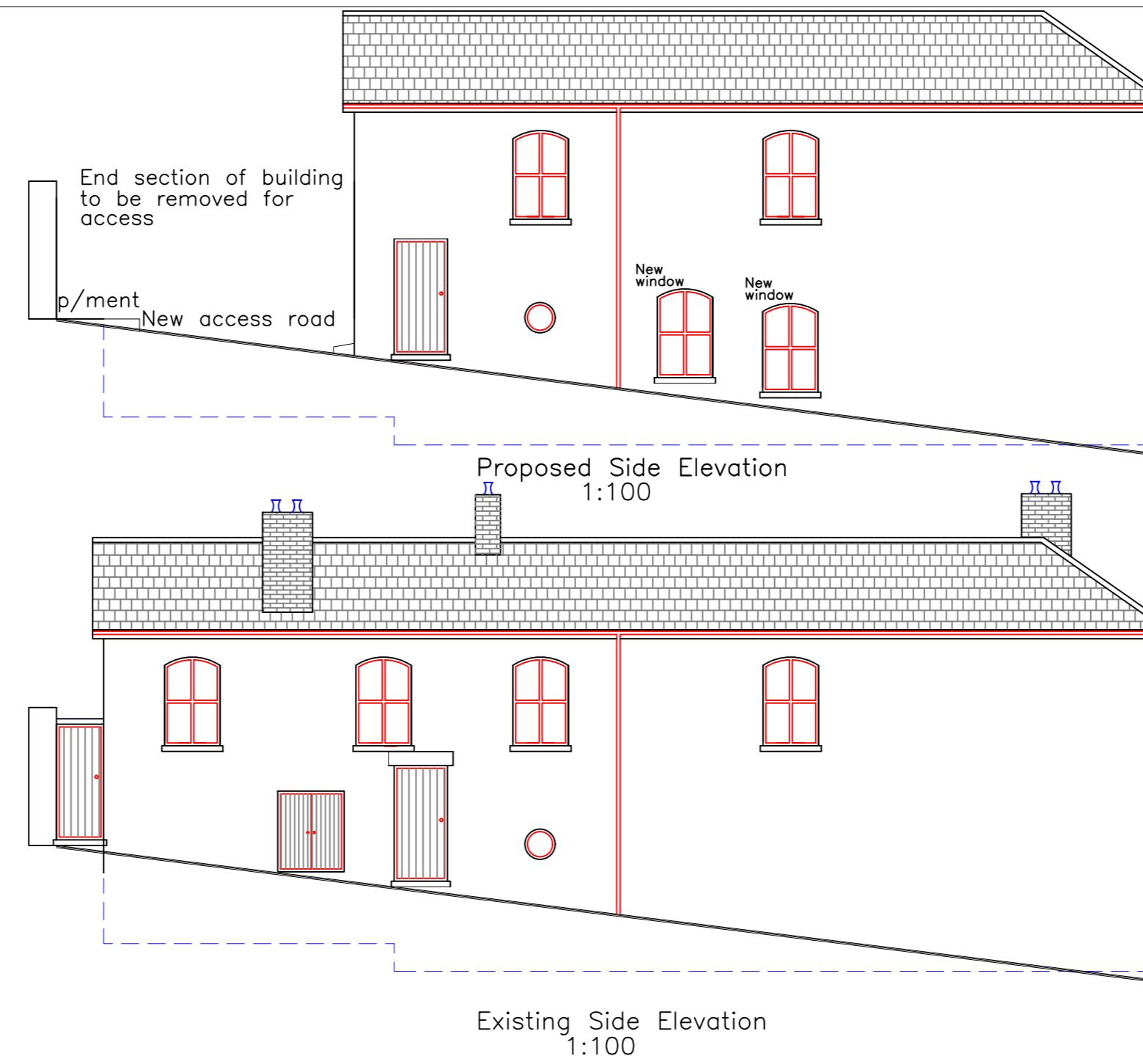
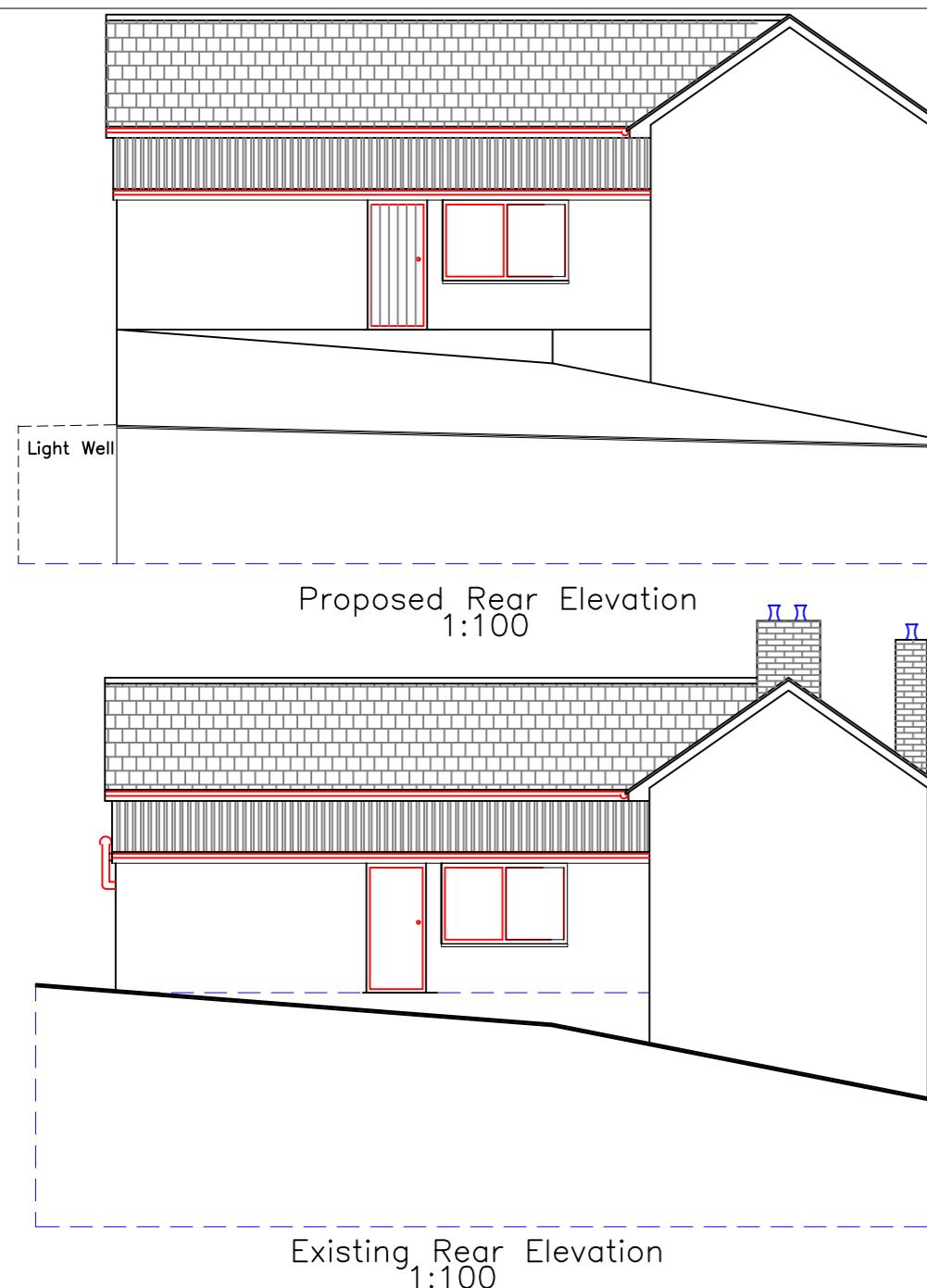
REPRESENTATIVE PLANS

OF THE PROPOSED DEVELOPMENT

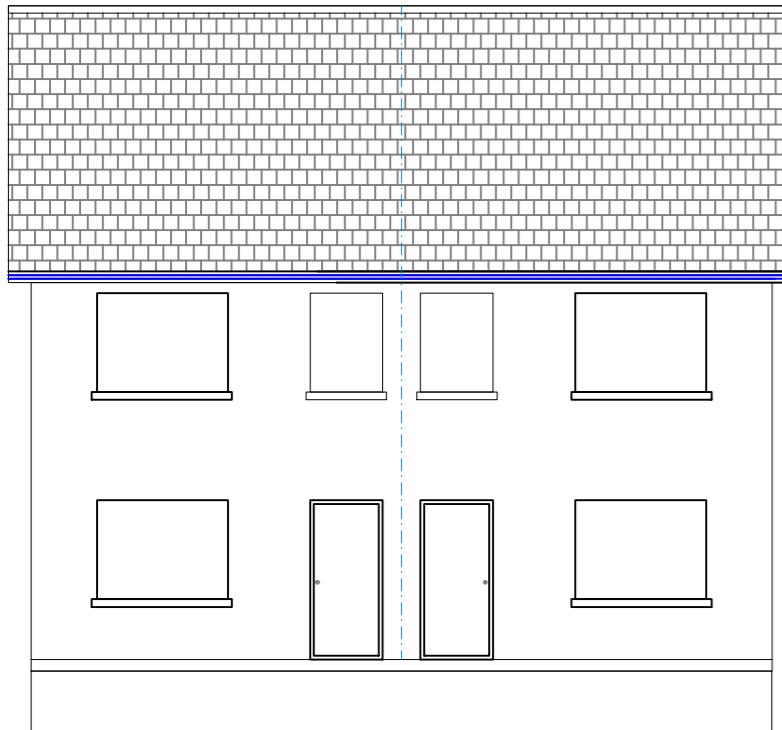


Proposed Site Plan Arrangements
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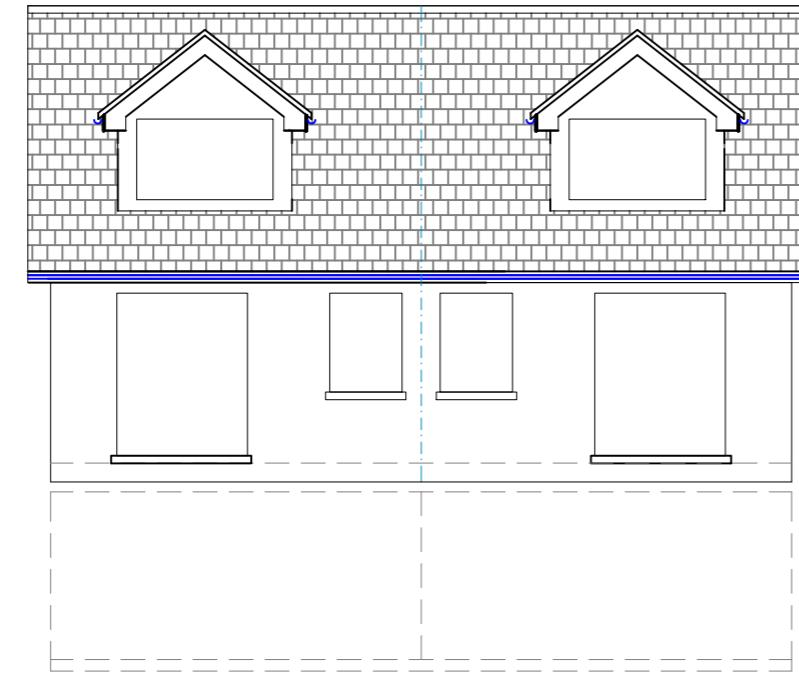




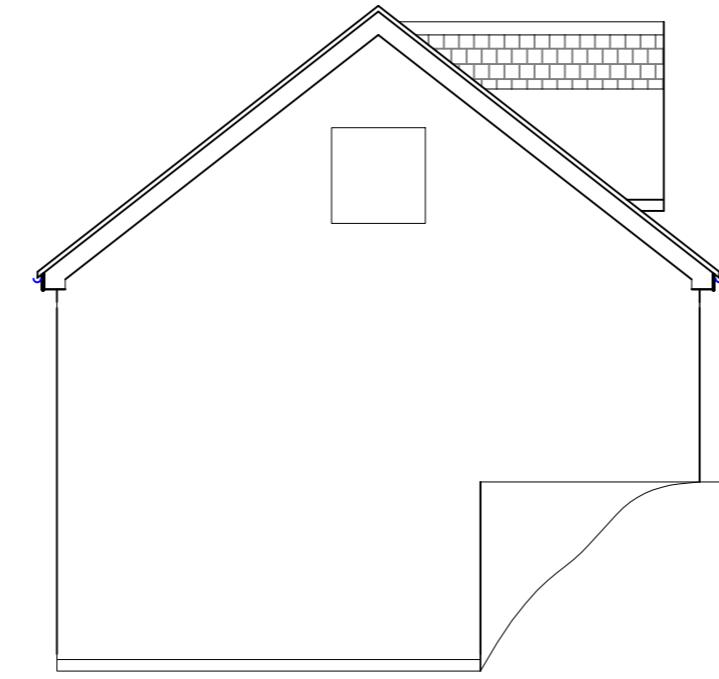
	Utopia Design	
Architectural Services		
Building Planning Application Support		
Paul Thomas: BSc (Hons)		
Tel: 01685 559230. Mob: 07908 725065		
Issued Only for Purpose Indicated		
Drawing Status: FOR PLANNING/BUILDING REGS PURPOSES ONLY		
Address: Norton Tavern, High Street, Penydarren, Merthyr Tydfil, CF47 9HG		
Project: Pre-App for Conversion of Norton to 6 Flats with Demolition of End Section to Provide Access to 2 New Dwellings with Associated Parking		
Drawn by	Date	Paper
PT	JULY 24	A2
Title	Scale	
	1:100	
Drwg No		
The Norton Existing & Proposed Elevations Norton PA 03		



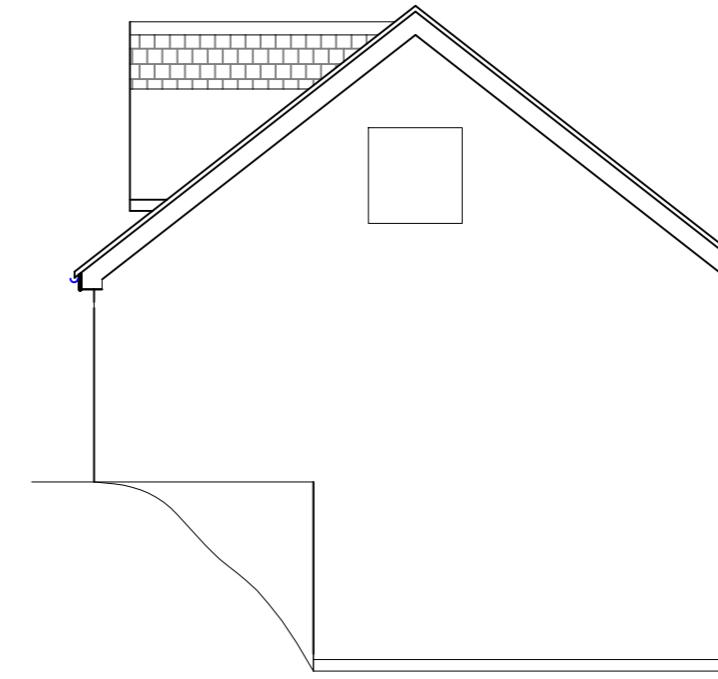
Proposed Front Elevation
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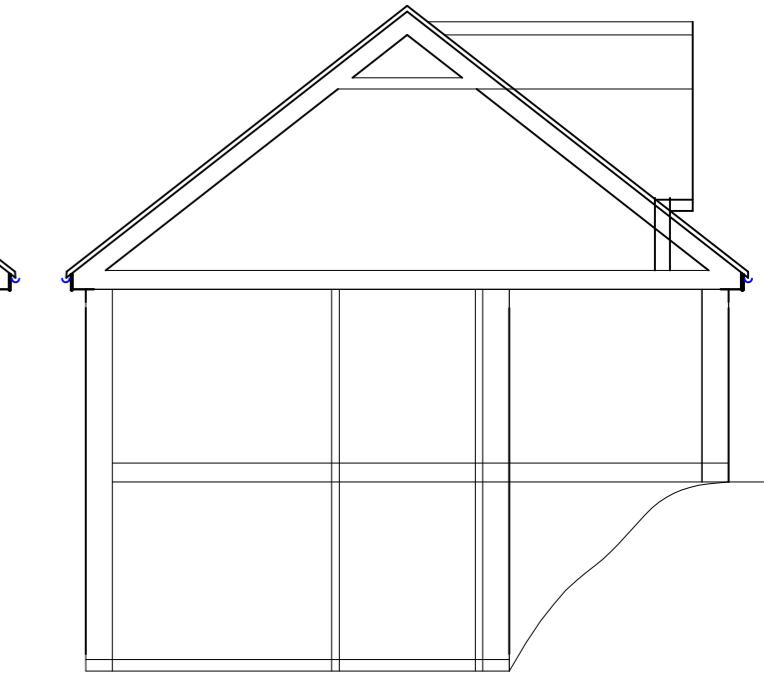
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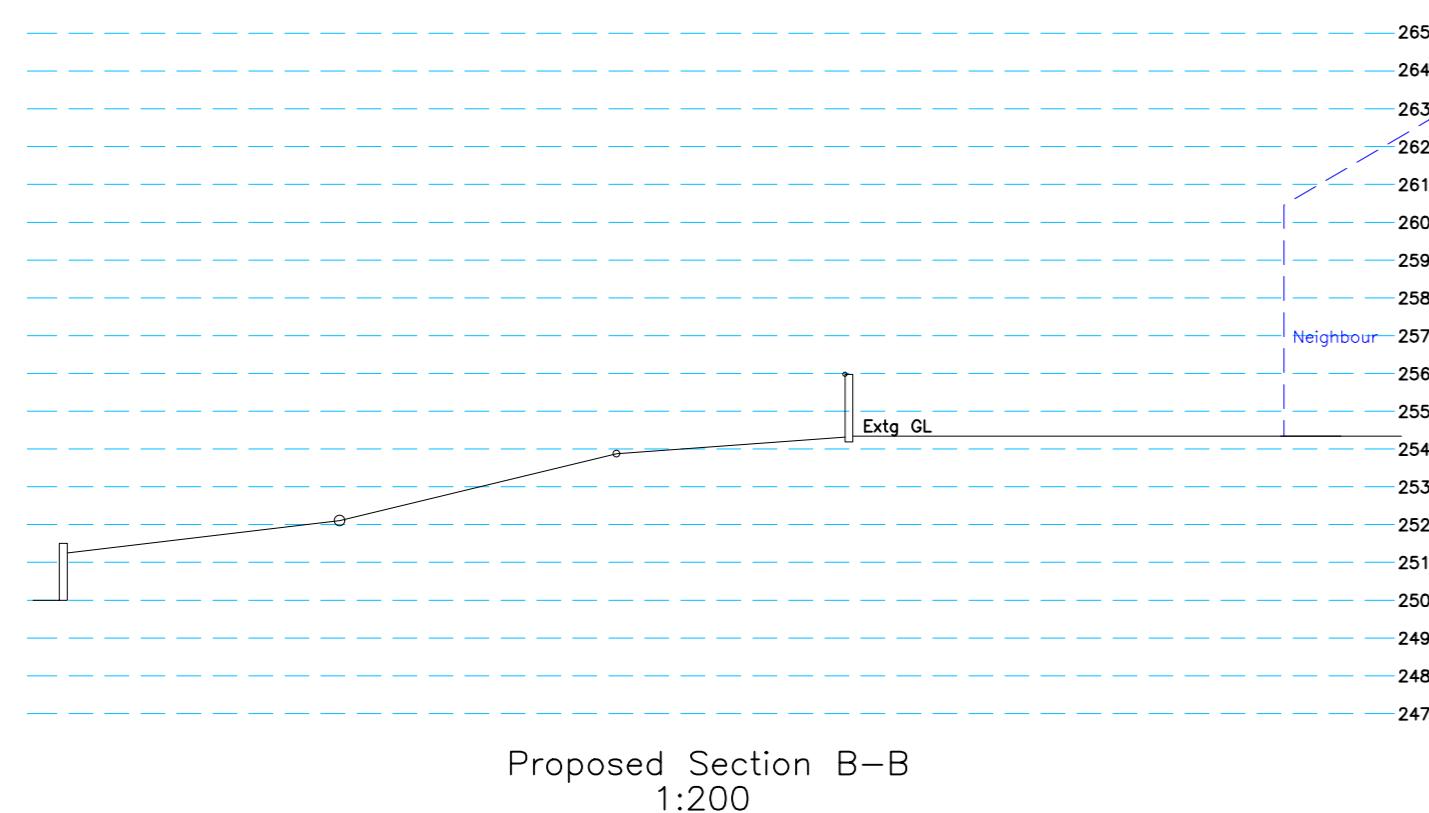
Proposed Side Elevation
1:100



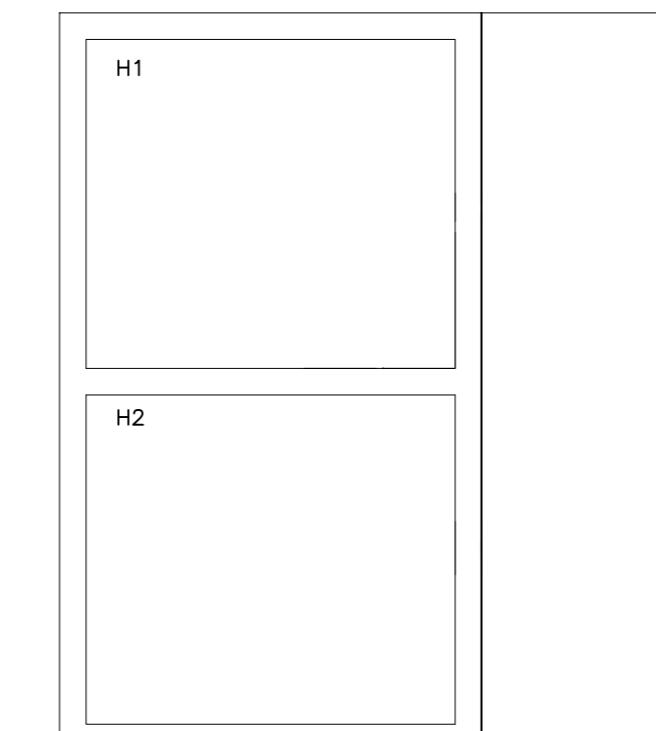
Proposed Side Elevation
1:100



Proposed Section
1:100



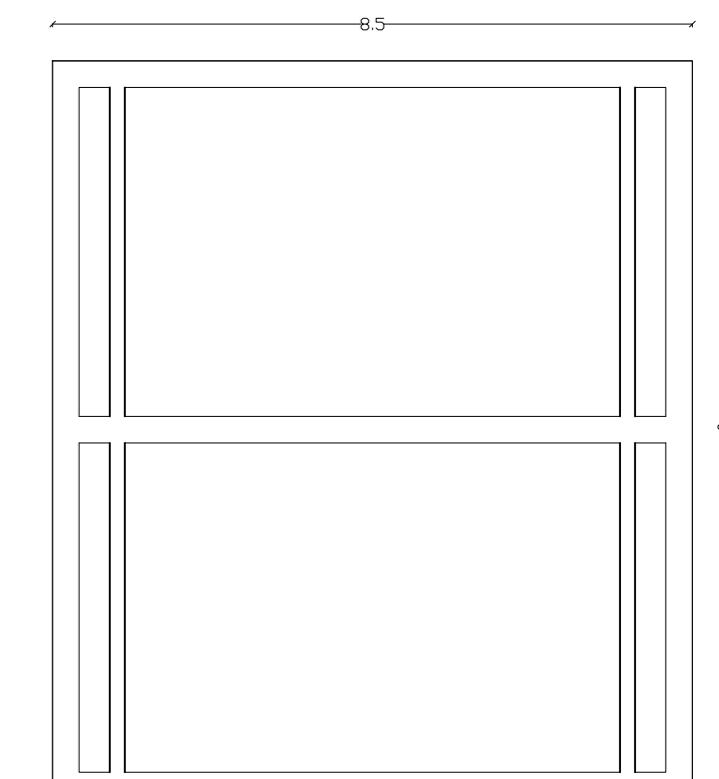
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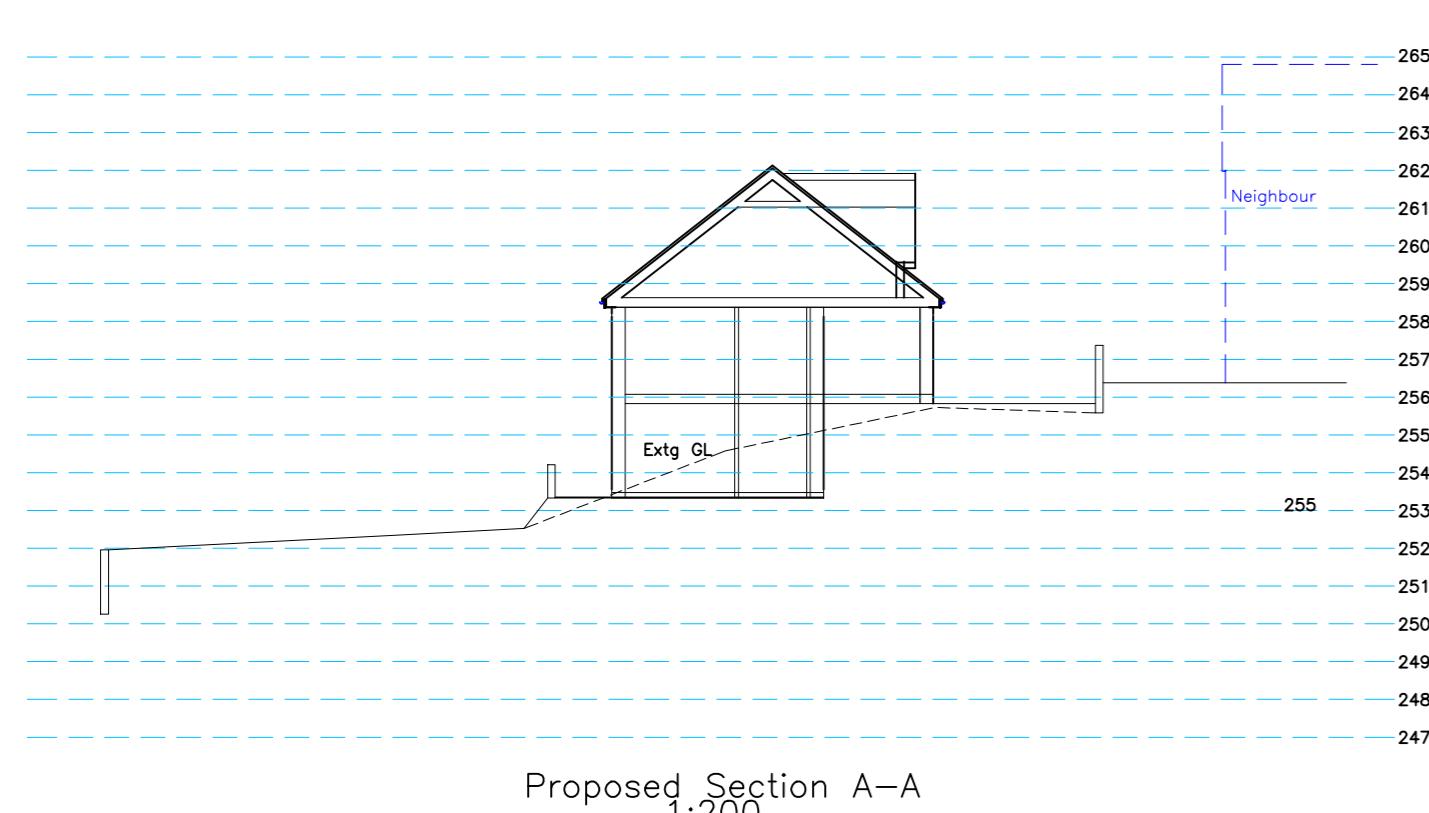
Proposed Ground Floor Plan
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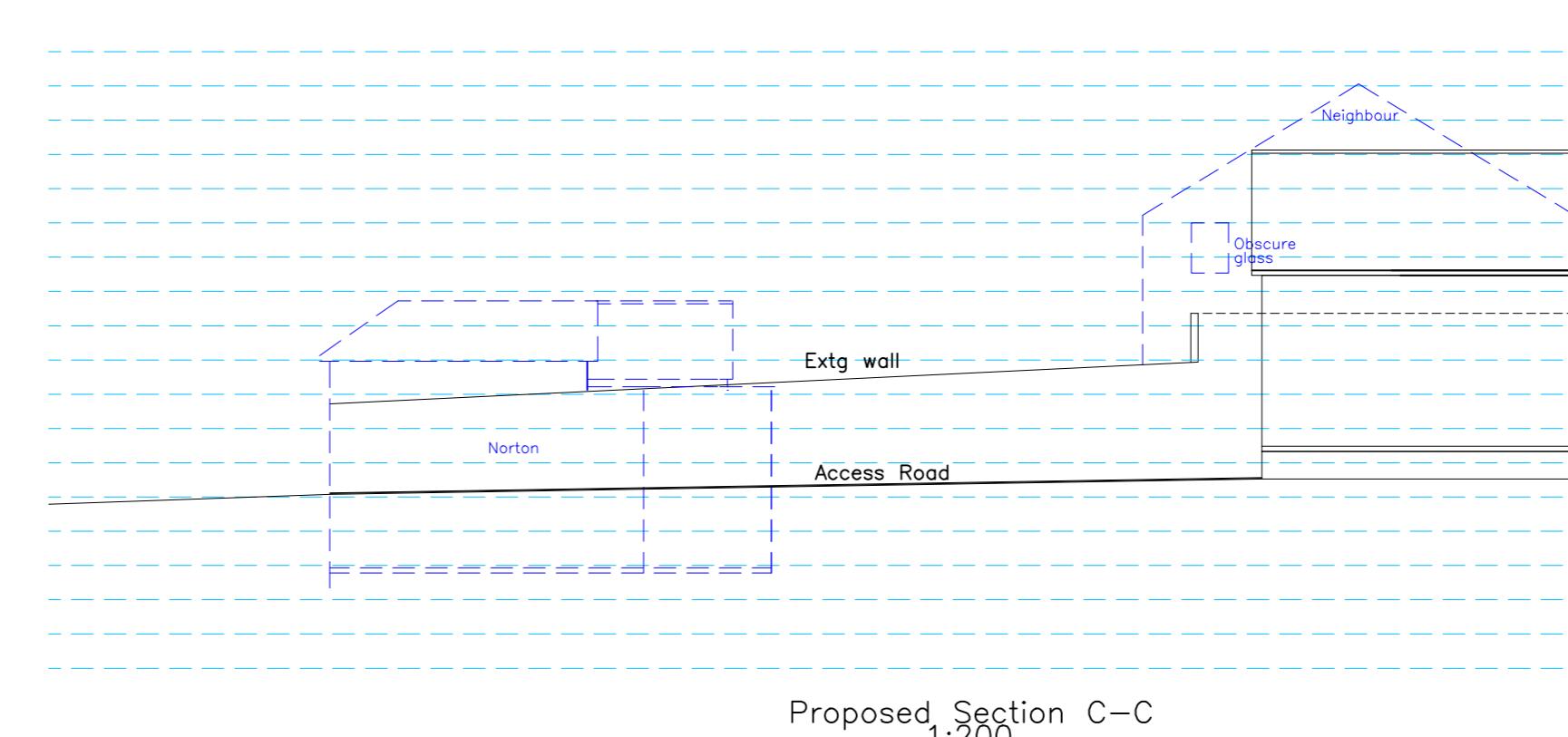
Proposed First Floor Plan
1:100



Proposed Second Floor Plan
1:100



Proposed Section A-A
1:200



Proposed Section C-C
1:200

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Drawn by	Date	Paper
PT	JULY 24	A2
Title	Scale	1:100
		1:200
Proposed Dwelling Plans, Elevations & Site Sections		
Drwg No Norton PA 04		

APPENDIX 2

COAL AUTHORITY CONSULTANTS REPORT NORTON TAVERN PENYDARREN



The Coal
Authority

Consultants

Coal Mining Report

The Norton
High Street
Penydarren
Merthyr Tydfil
Merthyr Tydfil
CF47 9HG

Date of enquiry: 3 September 2024
Date enquiry received: 3 September 2024
Issue date: 3 September 2024

Our reference: 51003447884001
Your reference:



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

RICHARD Davies

Enquiry address

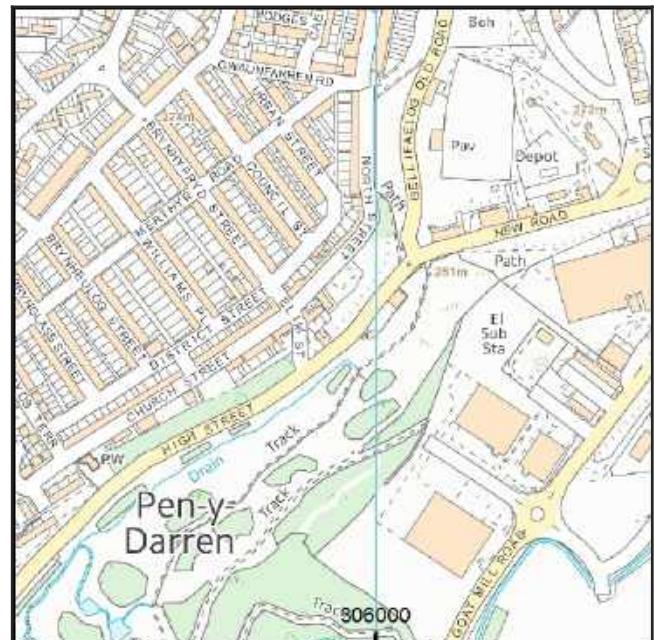
The Norton
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How to contact us

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

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.groundstability.com



Approximate position of property



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[/thecoalauthority](https://www.youtube.com/thecoalauthority)

Section 1 – Mining activity and geology

Past underground mining

No past mining recorded.

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

None available.

Outcrops

No outcrops recorded.

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

Please refer to the "Summary of findings" map (on separate sheet) for details of any opencast areas 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

None recorded within 50 metres of the enquiry boundary.

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

Based on the responses in this report, no further information has been highlighted.

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.

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**.

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.