

Coal Mining Risk Assessment: Desk Study

NCR Atleos

Tesco Supermarket

Market Lane

Penistone

Sheffield

S36 6TS

13 January 2026

C Radiven BSc Hons MEnvSci MIMMM

Executive Summary

Brief	Arbtech Consulting Ltd was commissioned by NCR Atleos to prepare a Coal Mining Risk Assessment (CMRA) for the Tesco Supermarket site at Market Lane, Penistone, Sheffield, S36 6TS. The assessment addresses potential legacy coal mining hazards associated with the proposed installation of a modular banking facility and demonstrates compliance with national planning guidance and Coal Authority requirements for High-Risk Development Areas.
Site location	The site is located within the operational area of Tesco Supermarket, Market Lane, Penistone, with surrounding land comprising primarily retail, commercial, and transport infrastructure. The proposed development footprint occupies a small area within the car park of the supermarket, on generally level ground with hardstanding surfaces.
Environmental Setting	The site lies partially within the Coal Authority High-Risk Development Area over the South Yorkshire Coalfield. The Penistone Low coal seam is present at moderate depth (~50–100 m), with a shallow dip of approximately 1–3° to the northeast and a seam bearing of 39°. No recorded underground workings, mine entries, opencast sites, coal tips, or mine gas incidents exist within 100 m–500 m of the site. The nearest recorded historic collieries (Barnsley Main and Silkstone) are several kilometres away. Bedrock comprises competent Pennine Lower Coal Measures Formation (mudstone and siltstone) with Penistone Flags Sandstone to the west, and no superficial deposits, faults, fissures, or breaklines are recorded.
Conclusions of the Coal Mining Risk Assessment	The CMRA concludes that, although the site is within a Coal Authority High-Risk Development Area, no recorded coal workings or mine entries exist beneath the proposed modular banking facility footprint. Probable shallow workings in the wider area present a minimal residual risk, and no evidence of opencast mining or mine gas has been identified. The proposed development, involving shallow excavation (~800 mm) for a Type 1 MOT sub-base and reinforced concrete raft slab, is unlikely to be affected by historic coal mining. Standard construction practices are sufficient to manage the residual risk.
Recommendations	<p>A design-led mitigation approach is appropriate for the development. Foundations should be constructed as shallow raft slabs over a proof-rolled, well-compacted granular sub-base. Below-ground drainage passing beneath the facility should be encased in concrete, and service penetrations sealed. Standard measures, including DPC detailing, cavity walls, and roof construction, will minimise potential gas pathways. A site-specific Trigger and Treatment Protocol should be implemented to manage any unexpected ground conditions, such as localised voids or anomalous fill, under the supervision of a qualified engineer. All events must be recorded, with a summary report provided to the Local Planning Authority or Coal Authority if requested.</p> <p>These measures ensure that any residual risks associated with historic coal mining are adequately addressed, allowing the modular banking facility to be constructed safely without the need for intrusive investigation.</p>

The Executive Summary is intended as a summary only. Further detail and the limitation of the assessment is provided within the main body of the Report.

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Introduction

Background

Arbtech Consulting Ltd has been commissioned by NCR Atleos to prepare a Coal Mining Risk Assessment (CMRA) for the site at Tesco Supermarket, Market Lane, Penistone, Sheffield, S36 6TS. The proposed development (Barnsley Metropolitan Borough Council planning reference PP-14593460) comprises the installation of a modular banking facility measuring approximately 7.5m × 4.5m. The cabin structure will be to replace a brick-and-mortar building to provide cash access / Post Office-style banking facilities. The development will require excavation to a depth of approximately 800 mm to accommodate a Type 1 MOT sub-base and a reinforced concrete raft slab.

Confirmation is required that any potential legacy coal mining hazards have been suitably considered in accordance with current planning guidance and the Coal Authority's requirements. The site is located within the Coal Authority High Risk Development Area. Therefore, a Coal Mining Risk Assessment is required to document the potential risks associated with historic coal mining in relation to a proposed development.

Scope of Works

- ⇒ Review of all available information on the coal mining issues which are relevant to the application site;
- ⇒ Identify and assess the risks to the proposed development from coal mining, including the cumulative impact of issues;
- ⇒ Recommend mitigation measures to address the coal mining issues affecting the site, including any necessary remedial works and/or demonstrate how coal mining issues have influenced the proposed development; and
- ⇒ Demonstrate to the Local Planning Authority that the application site is, or can be made, safe and stable to meet the requirements of national planning policy with regard to development on unstable land.

A CMRA is required in the UK as part of the planning application process in coal mining areas, primarily due to address safety and land stability risks.

Town and Country Planning Act 1990

National Planning Policy Framework (NPPF)

Coal Authority's standing advice and role under DMPO 2015

Sources of information

- ⇒ Consultants Coal Mining Report 51003545724001 (2026)
- ⇒ Information obtained from Groundsure.io and Mining Remediation Authority Interactive Mapping
- ⇒ Geological information obtained from the British Geological Survey
- ⇒ A Site history based on historic Ordnance Survey mapping of the area.
- ⇒ Search for past desk-based assessments of ground conditions for the application site or adjacent/nearby sites.
- ⇒ Search for results of past intrusive site investigation works undertaken to assess ground conditions for the application site or adjacent/nearby sites.
- ⇒ Research Penistone / Barnsley area coal mining history
- ⇒ Research South Yorkshire Coalfield

Site Context

Site Information



Fig.1 2025 Aerial Photograph

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Fig 2 Contains OS data © Crown copyright and database rights 2026© Mapbox© OpenStreetMap© Maxar

Site co-ordinates:	(NGR) 424430, 403292	Site Area:	c.1.36ha
Site Location	The site is located to the west of Penistone and access from Market Lane off the Bridge Street and St Mary's Street Roundabout and features a large Tesco Supermarket to the east of Penistone Show Ground to the northwest of Sheffield.		
Current Site use	The site is a wider area serving as a functional Tesco Supermarket. The proposed development is proposed to occupy a small subject area within the wider site which should be considered for the overall Coal mining Risk Assessment.		
Surrounding Area and Coal Mining	<p>The site is located within the operational area of Tesco Supermarket, Market Lane, Penistone, with surrounding land comprising primarily commercial and retail uses, as well as transport infrastructure. The site partially lies within the Coal Authority High-Risk Development Area (eastern half shows a band oriented northeast to southwest) over the South Yorkshire Coalfield, where historical coal mining may have occurred. The Coal Authority's records indicate no past underground workings, no mine entries within 100metres, no opencast sites or coal tips within 500 metres, and no recorded incidents of mine gas or subsidence affecting the site.</p> <p>A Coal Mining Risk Assessment (CMRA) is therefore required to document any potential coal mining hazards and demonstrate that the proposed development of the modular banking facility can be safely undertaken in accordance with current planning guidance and the Coal Authority's requirements.</p>		

Data Review

Environmental Setting and Geology		
Feature		Information
BGS 1:50 000 Sheet 87 – Sheffield (Solid & Drift) (Representative mapping presented as Appendix 2)	Artificial	No recorded Infilled Ground or Artificial Deposit recorded on the subject site.
	Superficial	No Superficial geology is recorded on site.
	Bedrock	Bedrock geology is recorded as Penistone Flags-Sandstone to west of the site and Pennine Lower Coal Measures Formation-Mudstone and siltstone to east.
	BGS Logs	No BGS logs on the subject site itself, the nearest is 450m northeast within the Pennine Lower Coal Measures Formation-Mudstone and siltstone Ref. SE20SW13 from 1976 for a water borehole to prove the Halifax Hard and Halifax Soft Seams. Logs are indicative as, given the distance may not be fully representative of site conditions.
Minerals and Mining	Coal Report	The site is within an area which could be affected by past, current or future coal mining.
	Development Risk	A development high risk is associated with the site from coal mining as a band-oriented northeast to southwest within the Pennine Lower Coal Measures Formation-Mudstone and Siltstone to the east of the store across the car park.
South Yorkshire Coalfield	Penistone	<p>The site is located within the operational area of Tesco Supermarket, Market Lane, Penistone, within the South Yorkshire Coalfield. Historical coal mining in the wider Penistone and Barnsley area was focused on the Pennine Lower Coal Measures Formation, which includes the Halifax Hard and Halifax Soft seams. Records indicate that coal extraction in this region historically occurred at moderate depths, but no past underground workings or mine entries are recorded within 100 metres of the site. There are also no opencast sites, coal tips, or recorded mine gas incidents within 500 metres.</p> <p>The Coal Authority identifies the site as lying partially within a high-risk development area oriented northeast to southwest across the eastern portion of the Tesco car park. Despite this designation, the absence of recorded workings or mine entries beneath the site suggests a low likelihood of coal mining-related ground hazards directly affecting the proposed modular banking facility.</p>

Environmental Setting and Geology

Feature	Information
	<p>A Coal Mining Risk Assessment (CMRA) is therefore appropriate to document the historic coal mining context, confirm that the site can be safely developed, and demonstrate compliance with current planning guidance and the Coal Authority’s requirements. Any future groundworks should follow standard engineering practice for areas overlying former coal mining activity to manage the minimal residual risk.</p>
Colliery Records	<p>Historic coal mining in the Penistone and Barnsley area was concentrated on moderate-depth seams within the South Yorkshire Coalfield, including the Halifax Hard and Halifax Soft seams of the Pennine Lower Coal Measures Formation. The Coal Authority records indicate no past underground workings or mine entries within 100 metres of the site, and no opencast mines or coal tips within 500 metres.</p> <p>The nearest recorded historic collieries are located several kilometres to the east and south of Penistone, including Barnsley Main and Silkstone Collieries, which operated during the 19th and 20th centuries. These collieries are distant from the Tesco site, and no direct connection to the proposed development area is documented.</p> <p>Overall, there is no evidence of historic coal workings beneath the Tesco site, and the likelihood of coal mining hazards affecting the proposed modular banking facility is therefore considered low.</p>

Mining Activity and Geology	
Feature	Information
Strategy	The Coal Authority Mining Report (Ref.51003545724001) dated 6th January 2026 has been obtained for the site and is presented as Appendix 3 with a summary of findings in Appendix 4. Additional sources of information have been used to carry out the assessment, pertinent images are included in Appendix 2.
Past underground mining	No past underground mining recorded:
Probable unrecorded shallow workings	The site is not in an area of probable unrecorded shallow workings.
Spine roadways at shallow depth	No spine roadway recorded at shallow depth.
Mine entries	No recorded mine entries within 100m or within influencing distance from the site.
Abandoned Mine Plans	A review of the Coal Authority’s records identifies one abandoned mine plan catalogue number (Ref. PO0) intersecting the enquiry boundary for the site. This indicates that historic coal mine plans exist for areas within or immediately adjacent to the site; however, the Coal Authority records confirm no past underground workings, no mine entries within 100 metres, and no other mining features directly beneath the Tesco site.
Outcrops	<p>The site is underlain by the Penistone Low coal seam, which is considered workable. The seam has a bearing of approximately 39° and a shallow dip of around 1–3° to the northeast, resulting in an estimated depth of 50–100 m below ground level across the site.</p> <p>No surface outcrops of the Penistone Low seam have been recorded at the site. While the seam is present at depth, there are no recorded past workings or mine entries beneath the Tesco site, and no evidence of opencast activity, coal tips, or mine gas incidents within the vicinity.</p>
Geological faults, fissures and breaklines	No faults, fissures or breaklines recorded.
Opencast mines	Based on the Coal Authority records, no opencast coal sites have been identified within 500 metres of the site.
Coal Authority managed tips	None recorded within 500 metres of the enquiry boundary.

Mining Remediation (Coal) Authority Search: Investigative or remedial activity

Feature	Information	
Investigative or remedial activity	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	<p>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.</p> <p>There is no current Stop Notice delaying the start of remedial works or repairs to the property.</p> <p>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.</p>
	Mine Gas	No mine gas emissions are recorded within the boundary of the property.
	Mine Water Treatment Schemes	None recorded within 500 metres of the enquiry boundary.

Mining Remediation (Coal) Authority Search: Licensing and future mining activity

Feature	Information	
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	<p>The property is not in an area where a notice to withdraw support has been given.</p> <p>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.</p>
	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.

Coal Mining Risk Assessment

Overview

This risk assessment comprises a desk-based review of all available information on coal mining issues that are relevant to the application site deemed to be located within a high-risk area. This includes:

- ⇒ Interpretation of information to identify and assess the risks to the proposed development from coal mining legacy, including the cumulative impact of issues;
- ⇒ Setting out appropriate mitigation measures to address the coal mining legacy issues affecting the site, including any necessary remedial works and/or demonstrate how coal mining issues have influenced the proposed development; and
- ⇒ Demonstrating to the local planning authority that the application site is, or can be made, safe and stable to meet the requirements of national planning policy with regard to development on unstable land.

The Mining Remediation Authority operates a risk-based approach to the assessment of potential instability issues associated with future development of land located within the predefined CA consultation areas. This risk-based approach subdivides the potential risk into “low” and “high” risk categories.

The risk categories can be defined as:

- ⇒ Low-Risk Sites – Deemed to be land where coal mining has taken place, however it was at such depth not to pose a risk to new development, and it therefore contains no known recorded risks and as such no further assessment is required.

If the proposed development is within the Development Low Risk Area, there is no requirement to submit any coal mining information with your planning application and The Mining Remediation Authority will not be consulted by the LPA. The LPA will include Standing Advice as an informative note within the decision notice.

High-Risk Sites – Deemed to be landholdings located within an area known to contain legacy risks that include:

- ⇒ Mine entries (shaft or adit);
- ⇒ Shallow coal workings (recorded and probable);
- ⇒ Workable coal seam outcrops;
- ⇒ Mine gas sites and areas;
- ⇒ Recorded coal-mining-related hazards;
- ⇒ Geological features (fissures and break lines); and
- ⇒ Former surface mining sites (sometimes using historic opencast extraction methods).

Summary of Coal Mining Risk Assessment

Coal Mining Risk Assessment	Yes/No	Risk Rating	Comment / Mitigation
Recorded Coal Workings at Shallow Depth (<30 m)	No	Low	The Penistone Low seam lies at an estimated depth of 50–100 m beneath the site; no shallow workings are recorded. The depth and time since last mining reduce the risk to the proposed modular facility.
Recorded Coal Workings at Greater Depth (>30 m)	Yes	Low	Historic moderate-depth coal seams (Penistone Low) are present at ~50–100 m depth. No evidence of active movement exists; risk to shallow foundations is minimal.
Unrecorded Coal Workings / Extraction of Coal Outcrop	No	Low	No unrecorded shallow workings have been identified beneath the site. The site is largely built over and developed, further mitigating risk.
Unrecorded Underground Coal Mining at Shallow Depth (<30 m)	No	Low	No spine roadways, shallow workings, or other unrecorded features are noted beneath the site; residual risk is minimal for a single-storey modular cabin.
Recorded Mine Entries (Shafts/Adits)	No	Low	No mine entries are recorded within 100 m of the site. Standard construction precautions are sufficient.
Unrecorded Mine Entries	No	Low	The Coal Authority records indicate no likely unrecorded shafts or adits beneath the site; minor residual risk is negligible.
Coal Mining Geology (Fissures/Fractures)	No	Low	No geological faults, fissures, or breaklines are recorded within the enquiry boundary.
Recorded Mine Gas Emissions	No	Low	No mine gas incidents are recorded within 500 m of the site.
Recorded Coal Mining Surface Hazard	No	Low	No historical subsidence claims, remedial works, or surface hazards are recorded at the site.
Surface Mining (Opencast Workings)	No	Low	No opencast coal extraction sites are recorded within 500 m of the site. Historical mapping confirms no nearby extraction.

Recommendations and Development

Conclusions	<p>The Coal Mining Risk Assessment for the Tesco Supermarket site, Market Lane, Penistone, has reviewed all available Coal Authority records, geological mapping, abandoned mine plans, and the current site context. The proposed development comprises a single-storey modular banking facility with shallow foundations. Based on the evidence gathered, the following conclusions are drawn:</p> <p>Depth and Historical Mining Activity – The site is underlain by the Penistone Low coal seam at an estimated depth of 50–100 m. No recorded past underground workings exist beneath the site, and coal extraction in the surrounding area occurred historically at moderate depth. The depth of the seam and absence of active workings substantially reduce the likelihood of ground movement affecting the proposed development.</p> <p>Probable Shallow Workings – The site is not located within an area of probable unrecorded shallow coal workings. No spine roadways or in-seam connections are recorded beneath the site, and the land is largely developed as a commercial retail area. These factors further reduce the potential risk of instability.</p> <p>Mine Entries – No mine entries (shafts or adits) are recorded within 100 m of the site boundary. There is no evidence of unrecorded entries beneath the proposed development footprint. Standard engineering practices are sufficient to manage any residual risk associated with distant historic features.</p> <p>Opencast Mining – No opencast coal sites are recorded within 500 m of the site, and historical mapping confirms no extraction has occurred on or immediately adjacent to the site. The risk associated with surface mining is therefore negligible.</p> <p>Geology and Ground Conditions – The site is underlain by competent Pennine Lower Coal Measures bedrock, comprising mudstone and siltstone, with no superficial deposits recorded. No geological faults, fissures, or breaklines are identified, and the site has demonstrated long-term stability as part of the wider operational supermarket area.</p> <p>Subsidence, Mine Gas, and Remedial Works – There are no recorded subsidence claims, Coal Authority notices, mine gas incidents, or remedial works affecting the site. Standard statutory protections under the Coal Mining Subsidence Act 1991 remain in place.</p> <p>Suitability of Proposed Development – The shallow foundations required for the modular banking facility are compatible with the underlying geology and low residual risk from historic coal mining. No intrusive investigations or remedial works are considered necessary.</p> <p>Overall Assessment – Taking into account the depth of historic seams, absence of mine entries beneath the site, lack of opencast activity, and demonstrated stability of the surrounding land, the risk to the proposed development from historic coal mining is considered low. Standard construction practices are sufficient to manage any minimal residual risk.</p>
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<p>Ciria Mine Gas Risk Assessment</p>	<p>A qualitative mine gas risk assessment has been undertaken in accordance with CIRIA C758 guidance to evaluate potential gas hazards at the Tesco Supermarket site, Market Lane, Penistone. The assessment considers site-specific geology, historical coal mining, and the proposed construction methods for the modular banking facility.</p> <p>The site is underlain by the Pennine Lower Coal Measures Formation, comprising mudstone, siltstone, and sandstone, with no superficial deposits recorded. Historical mining in the wider Penistone area includes the Penistone Low coal seam at an estimated depth of 50–100 m. No recorded underground workings, opencast sites, or mine entries are present within 100 m of the proposed development area, and no mine gas incidents have been reported in the vicinity. One abandoned mine plan intersects the enquiry boundary, but the Coal Authority records indicate no features beneath the footprint of the proposed facility.</p> <p>The proposed development comprises a single-storey modular banking facility, constructed with a reinforced concrete raft slab over a Type 1 MOT hardcore sub-base. Below-ground drainage will be encased in concrete, and the slab will incorporate a 1200 g DPM. The structure will also include cavity walls and standard damp-proof courses. These measures minimise potential pathways for any gas migration from the underlying strata.</p> <p>Potential gas sources considered include methane from the Penistone Low coal seam and minor carbon dioxide from natural organic decomposition. Other hazardous gases, such as carbon monoxide or hydrogen sulphide, are considered unlikely. The primary potential pathways for gas entry would be through soils, foundation penetrations, or the floor slab. However, the depth of the coal seam, the absence of recorded shallow workings, the long period since historic mining, and the robust construction design collectively reduce the likelihood of gas accumulation.</p> <p>Considering the site conditions, the construction methodology, and the absence of nearby recorded mine entries or gas incidents, the qualitative risk of mine gas affecting the proposed modular banking facility is considered low. Standard construction measures, as described, are sufficient to mitigate this minimal residual risk. No additional gas protection or monitoring is required.</p>
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<p>Recommendations</p>	<p>Based on the desk-based review of coal mining records, geological data, and the proposed development layout, the following recommendations are made to manage residual risks associated with historic coal mining:</p> <p>Foundations for the proposed modular banking facility should be designed and constructed in accordance with standard engineering practice for areas overlying former coal mining activity. A raft foundation or other suitable shallow foundation system, supported on a well-prepared, compacted sub-base, is considered appropriate to safely span any minor localised ground weakness and maintain structural stability.</p> <p>Below-ground services and drainage passing beneath the structure should be installed to minimise any potential interaction with legacy coal mining features, ensuring penetrations are adequately sealed to limit pathways for gas or void migration.</p> <p>The design and construction of the building envelope, including walls and floors, should follow conventional good practice for areas of former coal mining to provide resilience against any minor residual settlement or gas ingress.</p> <p>A trigger and treatment protocol should be implemented during construction to manage any unexpected ground conditions or previously unidentified features encountered.</p> <p>On this basis, the Coal Authority and Local Planning Authority can be satisfied that the residual risks associated with historic coal mining, including shallow unrecorded workings, mine shafts, and potential mine gas, have been adequately considered. The proposed development can be constructed safely without the need for intrusive site investigation or additional remedial works, subject to adherence to standard engineering and construction practices.</p>
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Trigger and Treatment Protocol		
Trigger Event	Response Action	Responsibility
Cavities, voids, or unexpected soft ground encountered during excavation	Stop work in the affected area. Assess by supervising engineer and, if required, treat via localised excavation and replacement with compacted sub-base or low-mobility grout. Likelihood considered very low at Tesco due to absence of recorded workings beneath the site.	Site Manager / Supervising Engineer
Rock or subsoil materially weaker or fractured than anticipated	Engineer inspection to confirm foundation suitability. Modify foundation design locally if necessary to ensure stability.	Supervising Engineer
Unconsolidated fill, debris, or unexpected spoil	Excavate and replace with engineered or well-compacted granular fill.	Contractor under instruction of Supervising Engineer
Evidence of historic coal mine features (timbers, coal fragments, open fissures)	Halt works, assess significance, notify Coal Authority or Local Planning Authority if required. Remediate via local excavation or grouting. Adjust foundation if necessary. Likelihood very low at Tesco.	Supervising Engineer / Contractor
Mine gas indicators (odour, unusual soil staining)	Ventilate area, suspend works if necessary. Install temporary protection or mitigation if a credible hazard is identified. Risk assessed as very low at Tesco.	Contractor under instruction of Supervising Engineer

Record Keeping:

All trigger events and remedial measures must be documented in the site file, including photographs and descriptions of actions taken. A summary report can be provided to the Local Planning Authority or Coal Authority if requested.

Implementation:

The protocol will be briefed to the construction team before commencement of groundworks and monitored throughout the excavation and foundation phase. The Supervising Engineer is responsible for ensuring compliance and recording all actions taken.

Appendices

Appendix 1: Site Plan

Appendix 2: Images

Appendix 3: Coal Authority Mining Report

Appendix 4: Coal Authority Summary of findings

Appendix 5: BGS Borehole Records

Appendix 6: Document Production Record

If you require clarification of the information contained herein, please do not hesitate to contact us via 01244 661170.

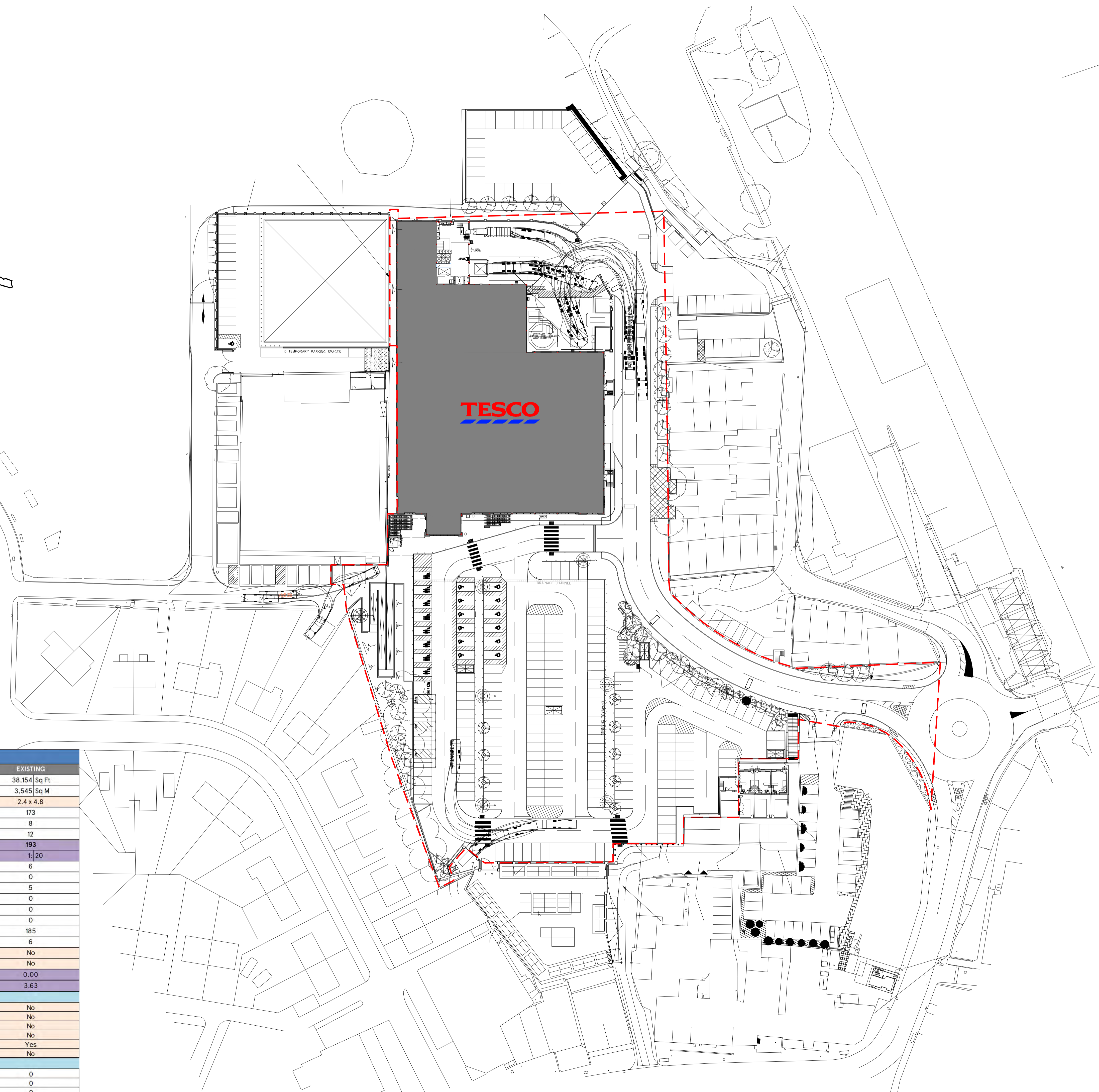
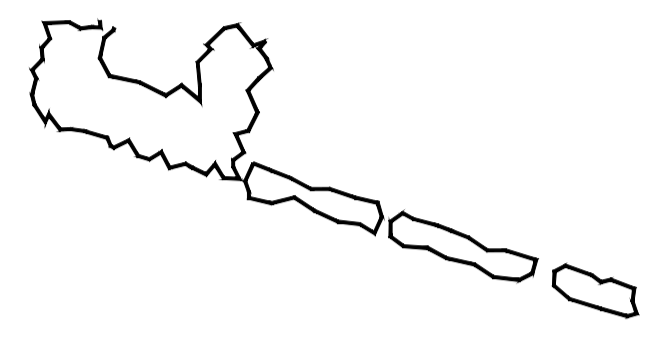
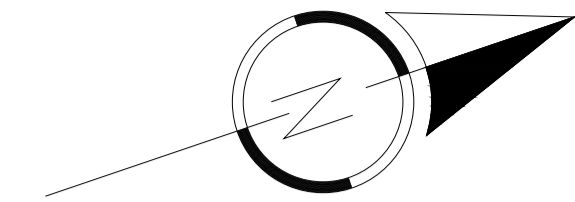
Yours Sincerely,

Charlie Radiven BSc Hons MIENVSc MIMMM

Geo-Environmental Director 07842 416623

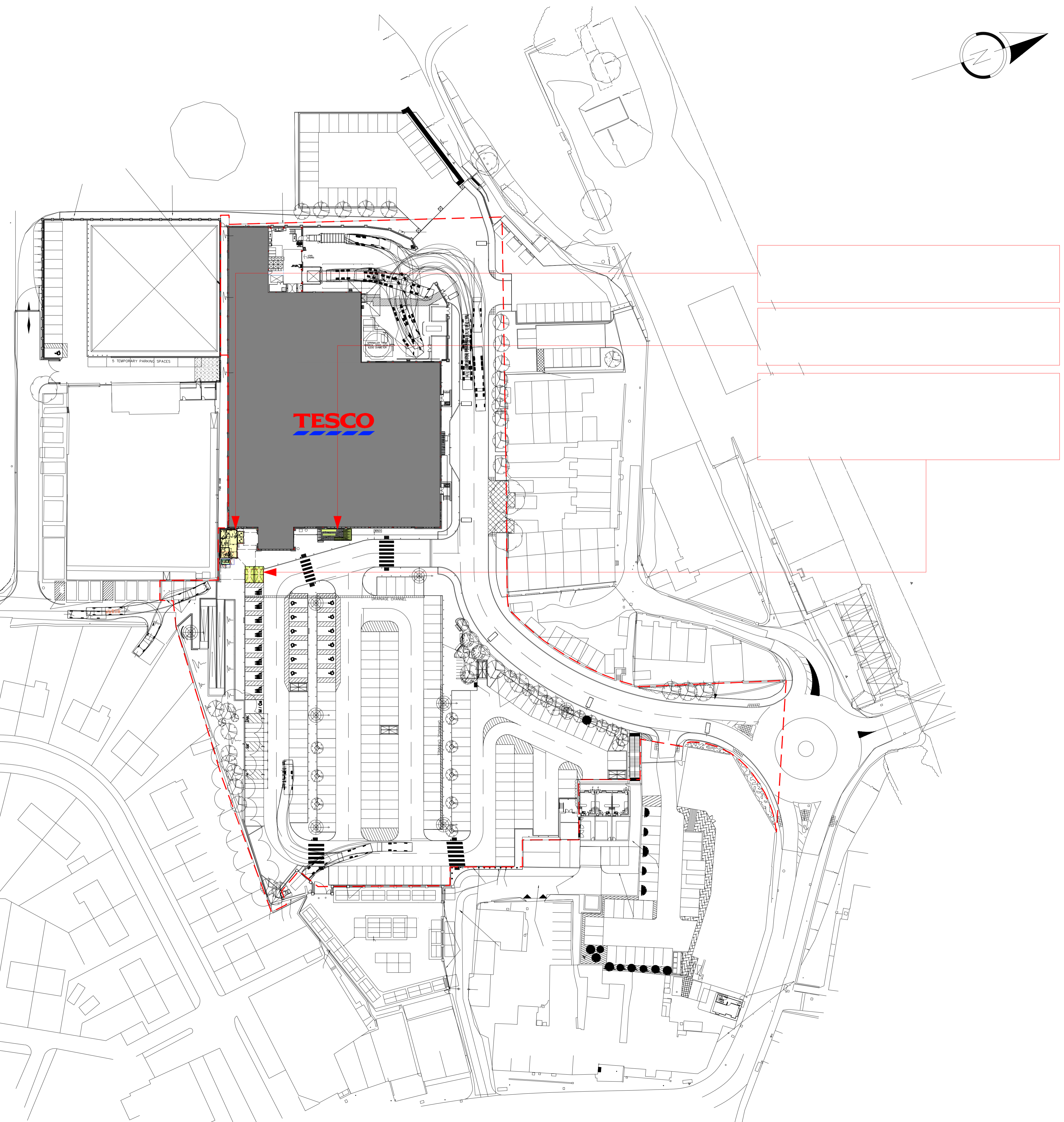
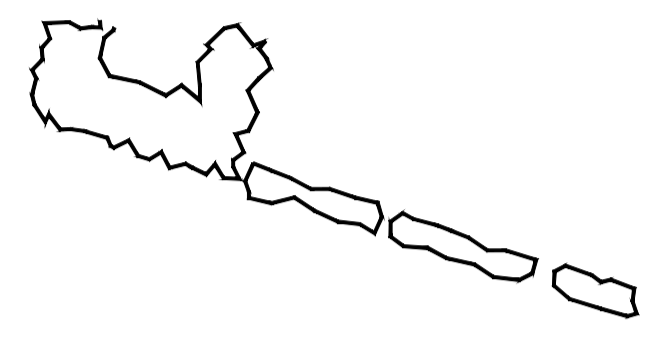
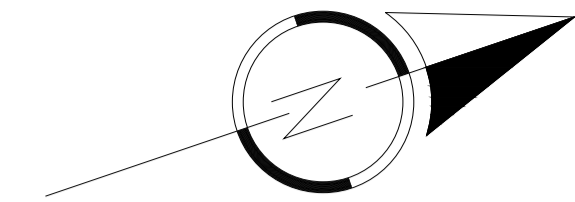
charlotteradiven@arbtech.co.uk

Appendix 1: Site plans



SITE PLAN DETAILS	
	EXISTING
STORE GROSS FLOOR AREA	38,154 Sq Ft 3,545 Sq M
PARKING BAY SIZE	2.4 x 4.8
STANDARD CAR PARKING SPACES	173
PARENT & CHILD SPACES	8
DISABLED SPACES	12
TOTAL CAR PARKING SPACES	193
CAR PARKING RATIO	1:20
TROLLEY BAYS	6
DEDICATED COLLEAGUE PARKING	0
EV CHARGING BAYS	5
CLICK+COLLECT BAYS	0
DOTCOM BAYS	0
SHARED/COMMUNITY SPACES	0
MOTORBIKE SPACES (In Sqft)	185
BICYCLE RACKS	6
AIR MACHINE SPACES	No
VACCUM SPACES	No
TOTAL RETAIL PARTNER PARKING BAYS	0.00
SITE AREA ACRES	3.63
Car Park Scheme	
Multistory	No
Decked	No
Stilts Car Parking	No
Rooftop	No
Surface (Ground)	Yes
Basement	No
PFS	
PFS Parking	0
PFS NET Area	0
PFS Gross Area	0



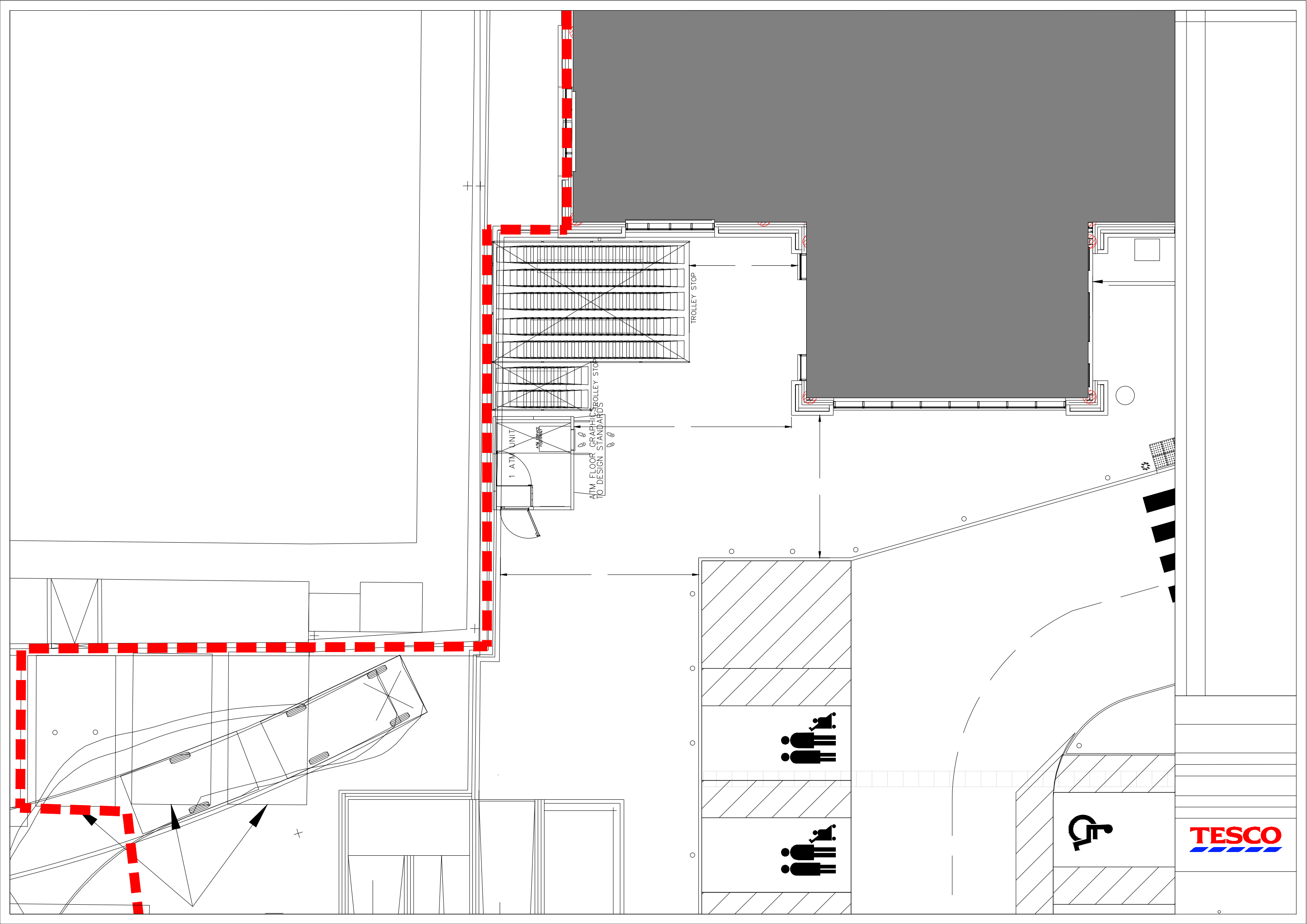


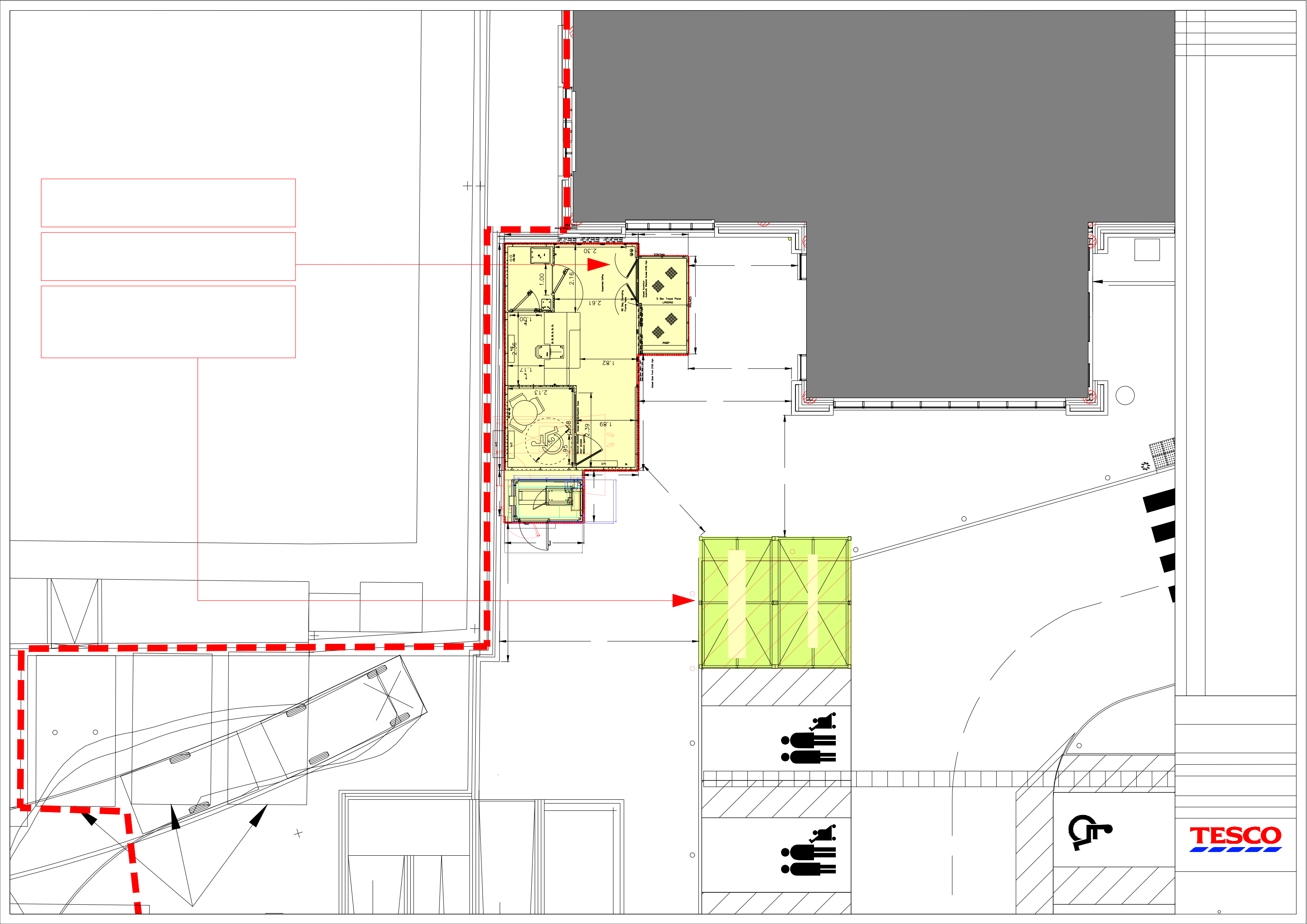
TESCO

TENANT NAMES	
COMMUNITY BANKING HUB	DATABASE SQFT
Gross	430
Net	430
Ancillary	0
Parking Bays	0

SITE PLAN DETAILS		
	EXISTING	PROPOSED
STORE GROSS FLOOR AREA	38,154 Sq Ft	38,154 Sq Ft
	3,545 Sq M	3,545 Sq M
PARKING BAY SIZE	2.4 x 4.8	2.4 x 4.8
STANDARD CAR PARKING SPACES	173	173
PARENT & CHILD SPACES	8	8
DISABLED SPACES	12	12
TOTAL CAR PARKING SPACES	193	193
CAR PARKING RATIO	1:20	1:20
TROLLEY BAYS	6	6
DEDICATED COLLEAGUE PARKING	0	0
EV CHARGING BAYS	5	0
CLICK+COLLECT BAYS	0	0
DOTCOM BAYS	0	0
SHARED/COMMUNITY SPACES	0	0
MOTORBIKE SPACES (In Sqft)	185	185
BICYCLE RACKS	6	6
AIR MACHINE SPACES	No	No
VACCUM SPACES	No	No
TOTAL RETAIL PARTNER PARKING BAYS	0.00	0.00
SITE AREA ACRES	3.63	3.63
Car Park Scheme		
Multistory	No	No
Decked	No	No
Stilts Car Parking	No	No
Rooftop	No	No
Surface (Ground)	Yes	No
Basement	No	No
PFS		
PFS Parking	0	0
PFS NET Area	0	0
PFS Gross Area	0	0







Appendix 2: Mapping Images

Drawings/Images

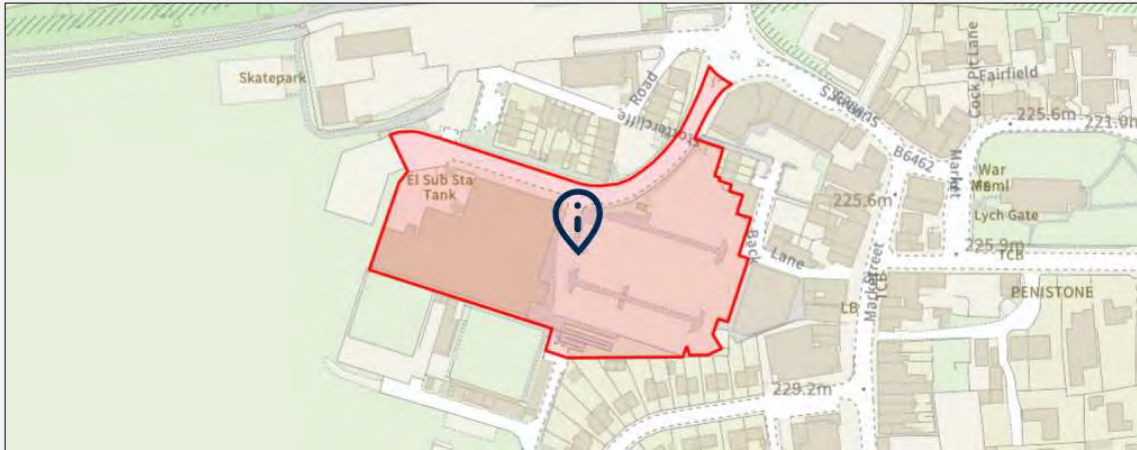


Plate 1: Location of the site

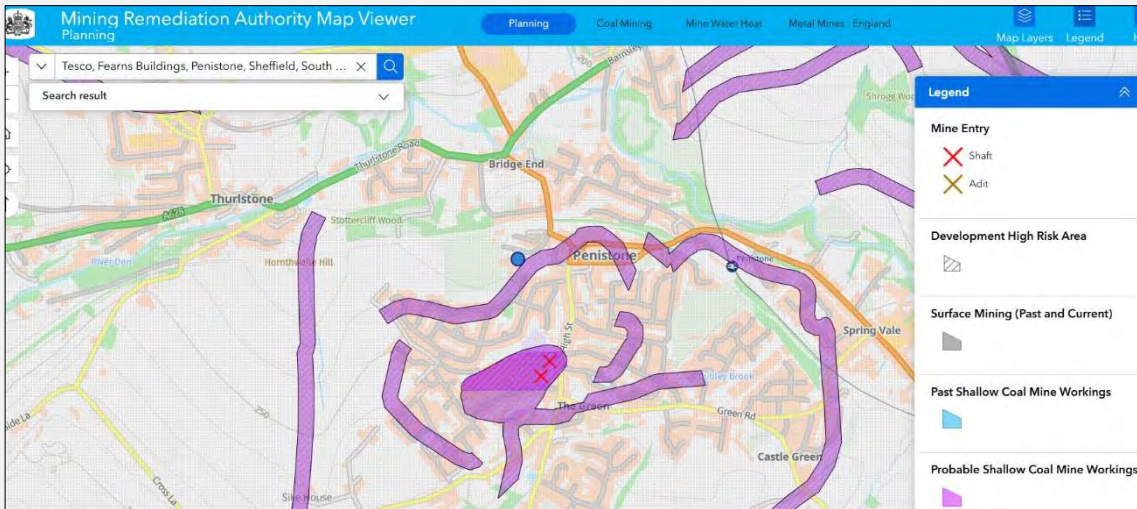


Plate 2a: Mining Remediation Authority Map ‘Planning’ (approximate location centre at blue circle)

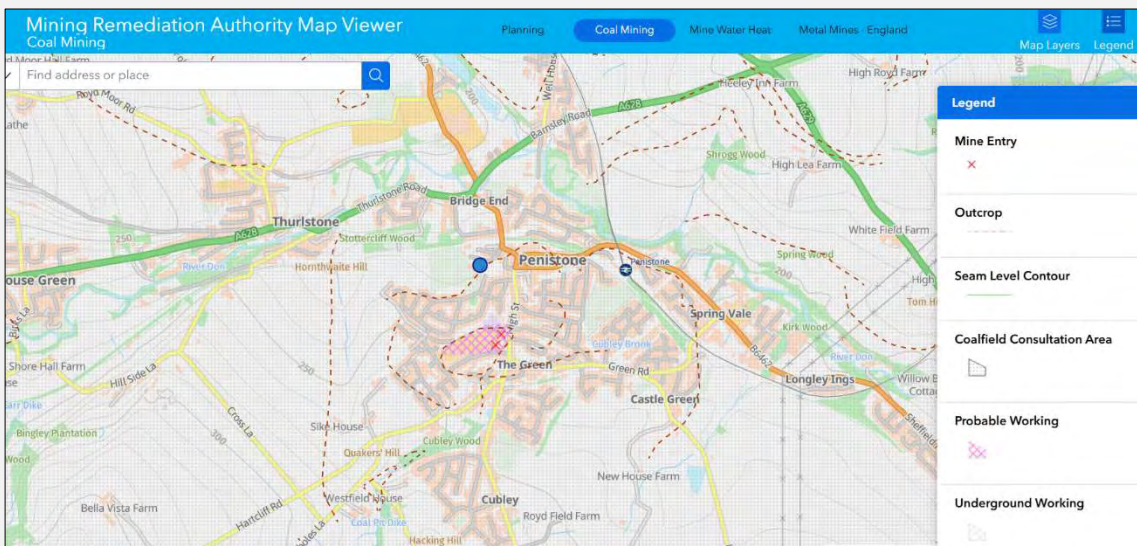


Plate 2b: Mining Remediation Authority Map ‘Coal mining’ (approximate location of site is most northern blue circle)

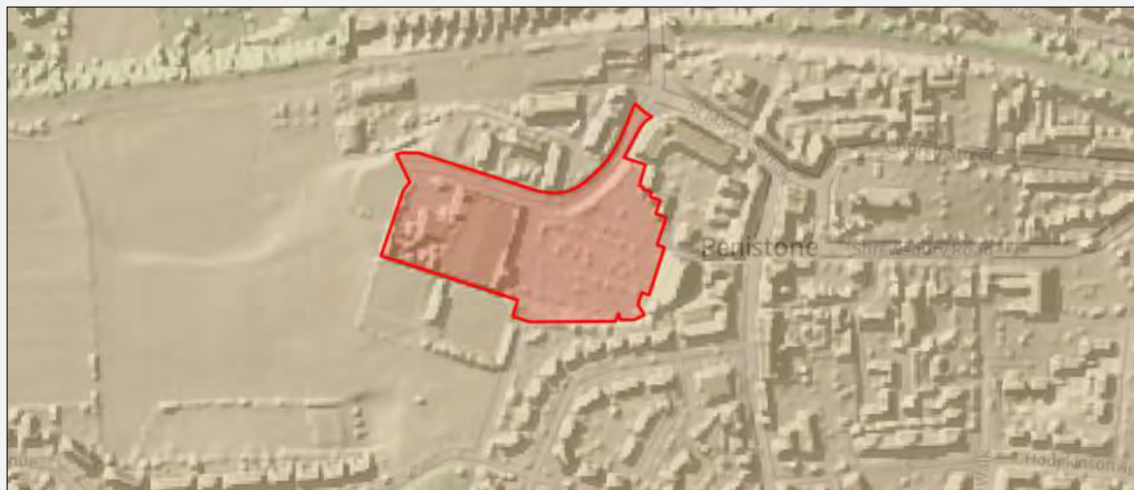


Plate 3: Lidar Imagery [Groundsure insights](#)



Plate 4: BGS 50k Linear Features and BGS 50k Artificial Ground [Groundsure insights](#)

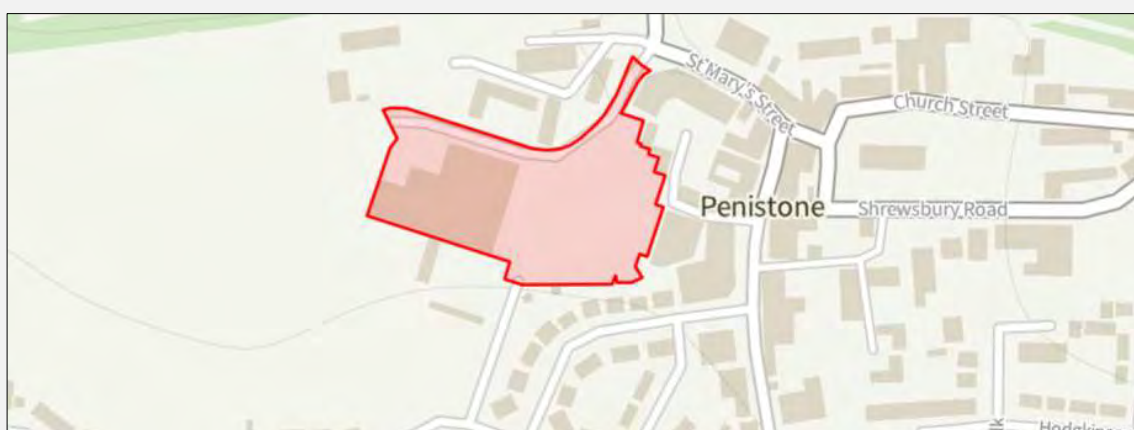


Plate 5: BGS 50k Superficial Deposits - No Superficial ground recorded on site [Groundsure insights](#)

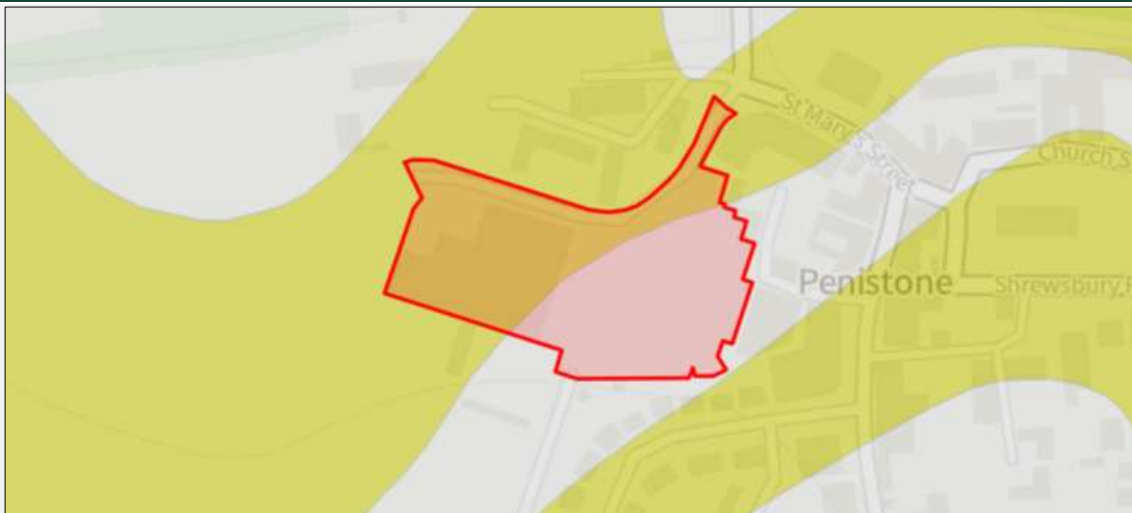


Plate 6: BGS 50k Bedrock - Penistone Flags-Sandstone to west (yellow) Pennine Lower Coal Measures Formation-Mudstone and siltstone to east (uncoloured) [Groundsure insights](#)

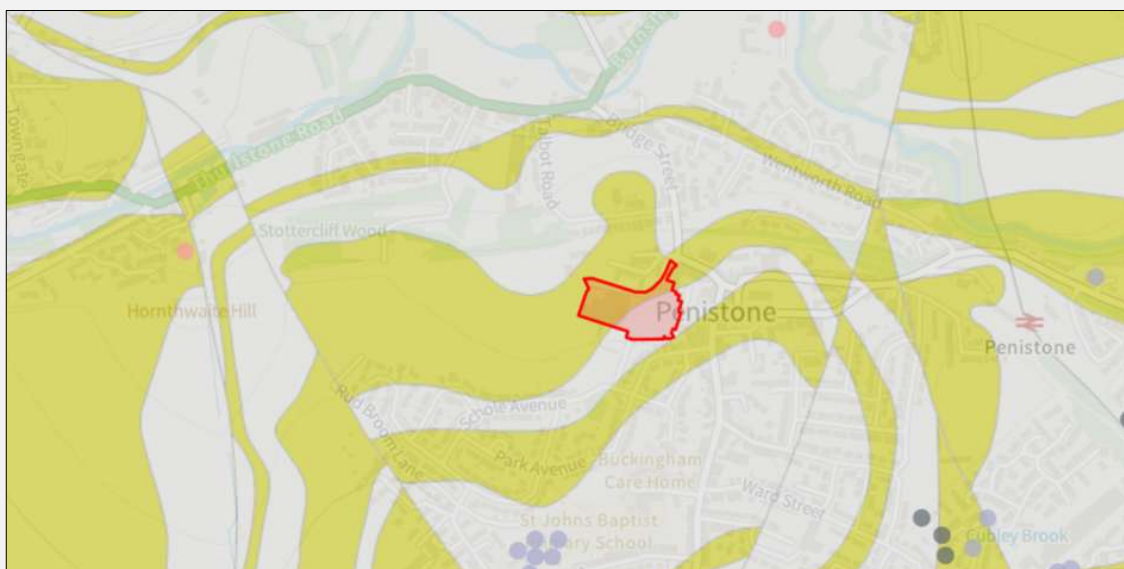


Plate 7: BGS borehole records surrounding the site [Groundsure insights](#)



Plate 8: [Georeferenced Maps viewer - Map images - National Library of Scotland](#) OS Six Inch 1888-1915

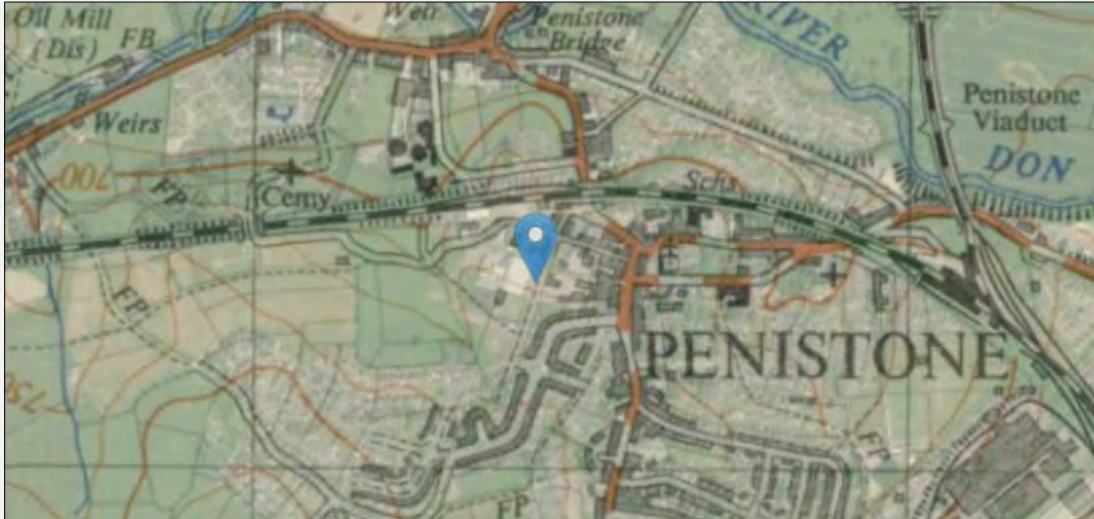


Plate 9: [Georeferenced Maps viewer - Map images - National Library of Scotland](#) OS 1:25,000 1937-1961

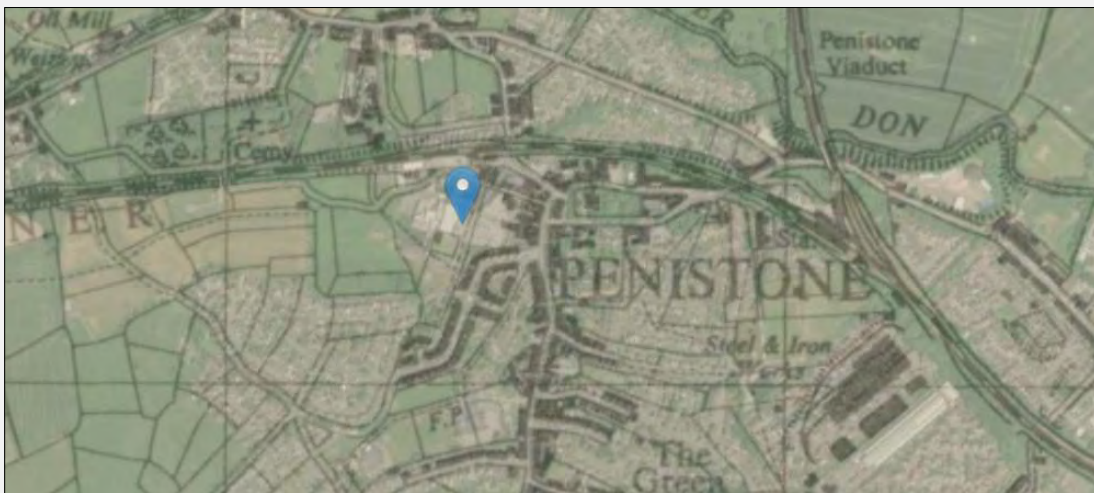


Plate 10: [Georeferenced Maps viewer - Map images - National Library of Scotland](#) OS 1:25,000 1945-1965

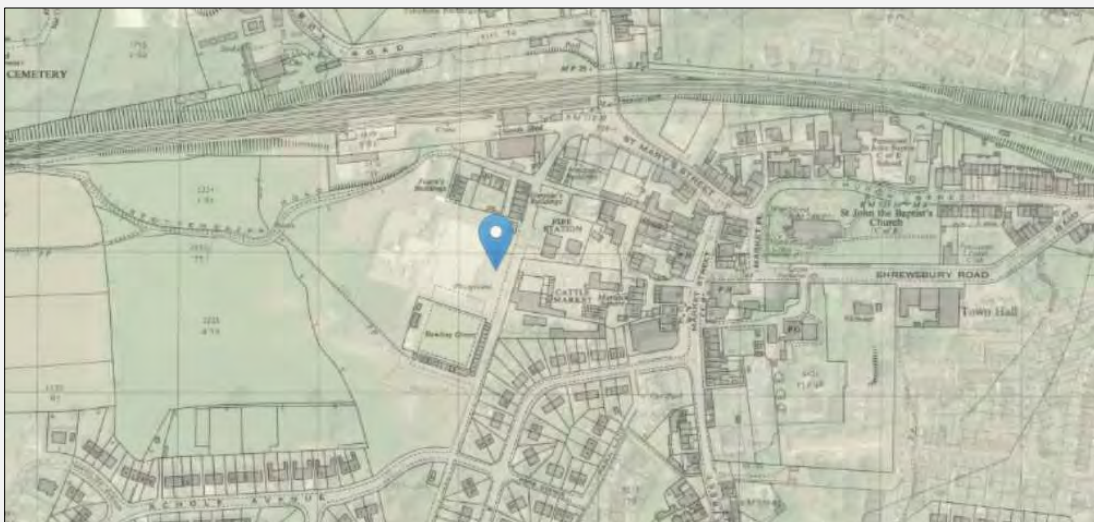


Plate 11: [Georeferenced Maps viewer - Map images - National Library of Scotland](#) OS 1:2,500 1944 – 1974

Appendix 3: Coal Authority Mining Report



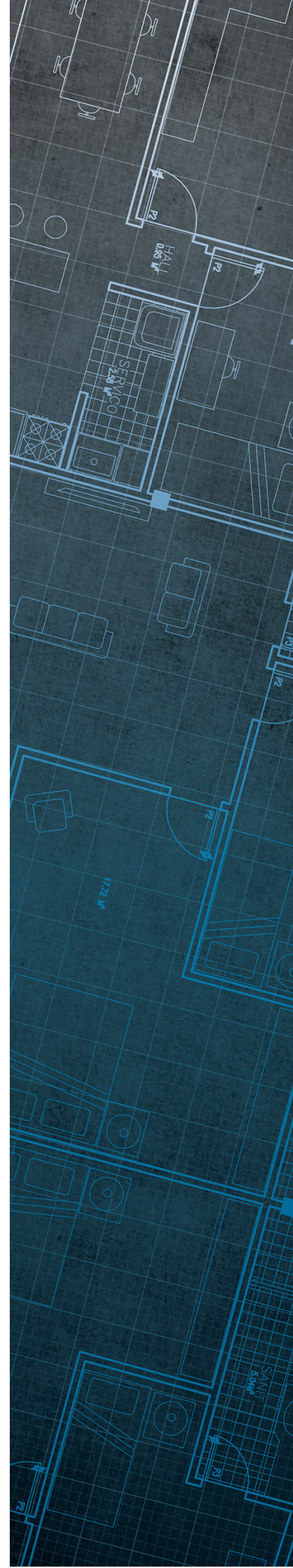
The Coal
Authority

Consultants Coal Mining Report

Tesco Stores, Market Lane,
Penistone, Barnsley, S36 6ts
South Yorkshire

Date of enquiry: 6 January 2026
Date enquiry received: 6 January 2026
Issue date: 6 January 2026

Our reference: 51003545724001
Your reference: GS-56J-7BB-IXT-BX8



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

GROUNDSURE LIMITED

Enquiry address

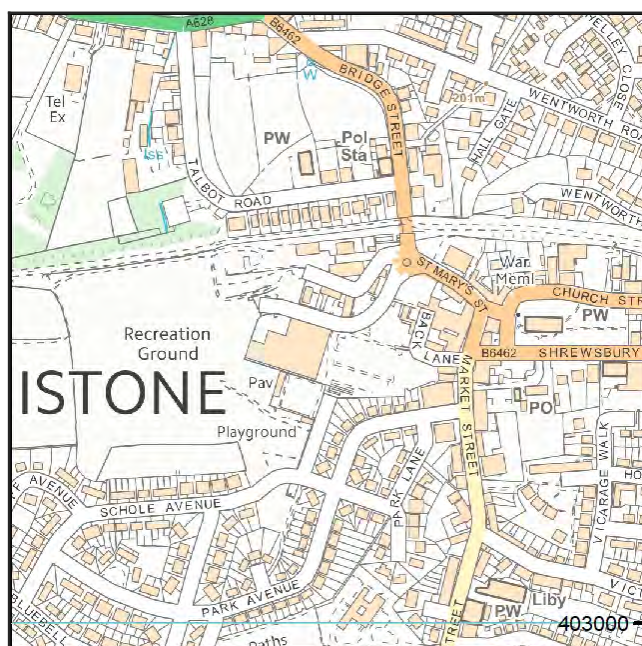
Tesco Stores, Market Lane, Penistone, Barnsley,
S36 6ts
South Yorkshire

How to contact us

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

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

reports@miningremediation.gov.uk



Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

No past mining recorded.

Probable unrecorded shallow workings

None.

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:

PO0		
-----	--	--

For assistance in identifying the specific abandoned mine plans relevant to your requirements, **please contact us at InformationManagers@MiningRemediation.gov.uk**.

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
PENISTONE LOW	Coal	Yes	Within	N/A	39

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

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 **email us at reports@miningremediation.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.

Appendix 4: Coal Authority Summary of findings

Appendix 5: BGS Borehole Record



FORM F 70
REVISED 1969

COMPLETION OF BOREHOLE
13.1 JAN 1976

Section of WATER HALL Borehole

Purpose To prove the Halifax Hard and Halifax Soft seams

Exact Site O.S. N.G.R. SE/24670/03787

Level at which shaft bore commenced relative to O.D. 635.53
drift A.O.D.

Date of sinking or boring April/May 1975

Sinker or borer Foraky Limited
Cores, other than coal, examined by W. J. Smith and S. Graham.

6-INCH MAP	B.M. REGD. NO.
Yorks. 273 SE (County, Sheet and Qtr.)	
SE 20 SW (Nat. Grid, Sheet & Qtr.)	13
Attach tracing from a map or sketch map if possible	

SE 20SW
13

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS		DEPTH	
		m-of ft*	cm-of in*	m-of ft*	cm-of in*
	OPEN HOLE - NO CORE	650	0	650	0
	Details from electric log:-				
	Grenoside Rock 53' from 56'-108'				
	Hard Bed Band 15" ? at 641'				
	Clay Coal 15" ? at 819'-6"				
LOXLEY EDGE ROCK	Grey/green siltstone with inclusions of dark shale	0.46	6	651	6
	Massive off-white sandstone with micaceous partings	4.74	1	665	7
	Dark silty shale with sparse fish	1.19	3	684	6
	Dark grey siltstone	0.61	0	676	6
	Massive buff sandstone with abundant burrows	1.24	1	675	6
	Interbanded dark silts and sands with burrows	0.82	11	678	6
	Dark micaceous siltstone, sparse mussels and plants	2.48	1	680	7
	Dark silty shale with sparse plants	3.48	5	698	7
	Dark shale, sparse fish and plants, some silty micaceous horizons	2.28	11	705	7
	Dark grey shaly mudstone with very occasional pyritic nodules	0.38	3	708	7
	Dark grey silty micaceous shale	0.13	5	708	7
	Grey micaceous sandstone	0.05	2	708	7
	Dark grey coarse micaceous siltstone	0.33	1	709	7
	Dark grey silty mudstone, micaceous in part and occasional thin sandstone bands (up to 7 in.) throughout	2.54	4	718	7
	Finely interlaminated micaceous silty mudstone and pale grey sandstone with occasional plant remains	0.91	0	721	7
	Dark grey micaceous silty mudstone with sparse mussels at 721'-6"	0.48	7	722	7
	Fine dark grey siltstone with micaceous sandstone partings	0.61	0	724	7
	Dark grey silty mudstone with fine sandstone interlaminations. Occasional plant remains below 729'-3"	2.27	4	732	7
	Dark grey shaly mudstone with ferruginous horizons below 734'-0"	0.72	7	734	7
	Dark grey sandstone		3	734	7
Dark grey shaly mudstone with occasional coalified plant remains including Calamites. Ironstone bands throughout	2.03	7	741	6	



FORM 71
SERIES 680

Section of WATER HALL Borehole

6-INCH MAP	S.H.
Yorks. 273 SE	
SE 20 SW	13

*Delete as appropriate

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS		DEPTH	
		m-or ft*	cm-or in*	m-or ft*	cm-or in*
MARINE BAND	Dark grey carbonaceous shale with occasional pyritic nodules. Abundant foraminifera 741'-9" to 742'-3". Pyritic nodules abundant from 742'-3" to 742'-4"	0.25	2 1/2	276	26 4
	Dark grey carbonaceous mudstone with scattered Lingula	0.07	7/8	276	29 5
	Dark grey shaly mudstone with abundant pyritic nodules and occasional veins	0.03	3/8	276	29 2
	Dark grey ferruginous mudstone with occasional pyritic rods	0.16	1 5/8	276	27 8
	Dark grey shaly mudstone with abundant mussels and occasional ostracods	0.18	1 7/8	276	25 3
	Dark grey carbonaceous shale with abundant pyritic nodules	1 0.38	3 7/8	276	27 3
	Dark grey shaly mudstone with pyritic lenses	0.104	1 1/8	276	27 5
	Dark grey carbonaceous shale with mussels and fish remains at base	0.08 3	2 3/8	276	27 3
	Dark grey silty mudstone with abundant pyritic nodules above 746'-3". Abundant mussels below and becoming siltier. Ironstone bands and very occasional plant remains below 750 ft. Ostracods below 753'-0"	3.12 8 4	7	251	17 5
	Dark grey shaly mudstone with mussels and ostracods above 761'-11". Ironstone bands throughout. Occasional coalified plants below 766', pyritic rods below 766'-7" and abundant ostracods in bottom 2 in.	3.10	2	234	26 7
	Grey/brown ferruginous mudstone	0.13 5		769	34 0 3 9
	Dark grey slightly carbonaceous mudstone with occasional fish remains and pyritic nodules. Scattered foraminifera below 769'-9", sparse Lingula at 770'-1"	1 0.466		770	34 8 5
	MARINE BAND	Dark grey shaly mudstone with very occasional fish remains	0.20 8		771
Dark grey silty shale with occasional fish, Posidonia - pyritised in part, Goniatites and occasional coalified plant remains throughout		1 0.50	7 1/2	772	35 9 1/2
HALIFAX HARDS	COAL	0.91	11 1/2	774	36 1 1/2
	Dark grey ganister	0.08 3		775	36 2 6
	OPEN HOLE - NO CORE	75	2 1/2 0	850	29 0 6
	Grey ferruginous siltstone	0.05 2		850	2
	Grey mudstone with coalified Calamites, Lepidodendron in top 3 in. Mussels throughout. Fish remains below 852'-0"	0.72	7	852	9
	Dark grey carbonaceous shaly mudstone with abundant mussels, ostracods and Spirorbis	0.10 4		853	1
	Dark grey silty shale with occasional fish remains and occasional coalified plants	0.23 9		853	10
	Dark grey silty mudstone with very occasional coalified plant remains	0.33	1	854	11
	Dark grey silty shale with abundant mussels and occasional coalified plant remains	0.49	3	858	22
	Dark grey shaly mudstone with abundant mussels above 860'-10". Occasional ostracods and fish remains including Rhabdoderma throughout. Ironstone bands. Abundant Carbonicola in lower 2 in.	1.17 3	10	862	0 2 6 7 4
	Grey silty mudstone with scattered mussels. Pyritic nodules throughout. Occasional coalified plant remains	2.59 8	6	870	6 2 6 5 3 3



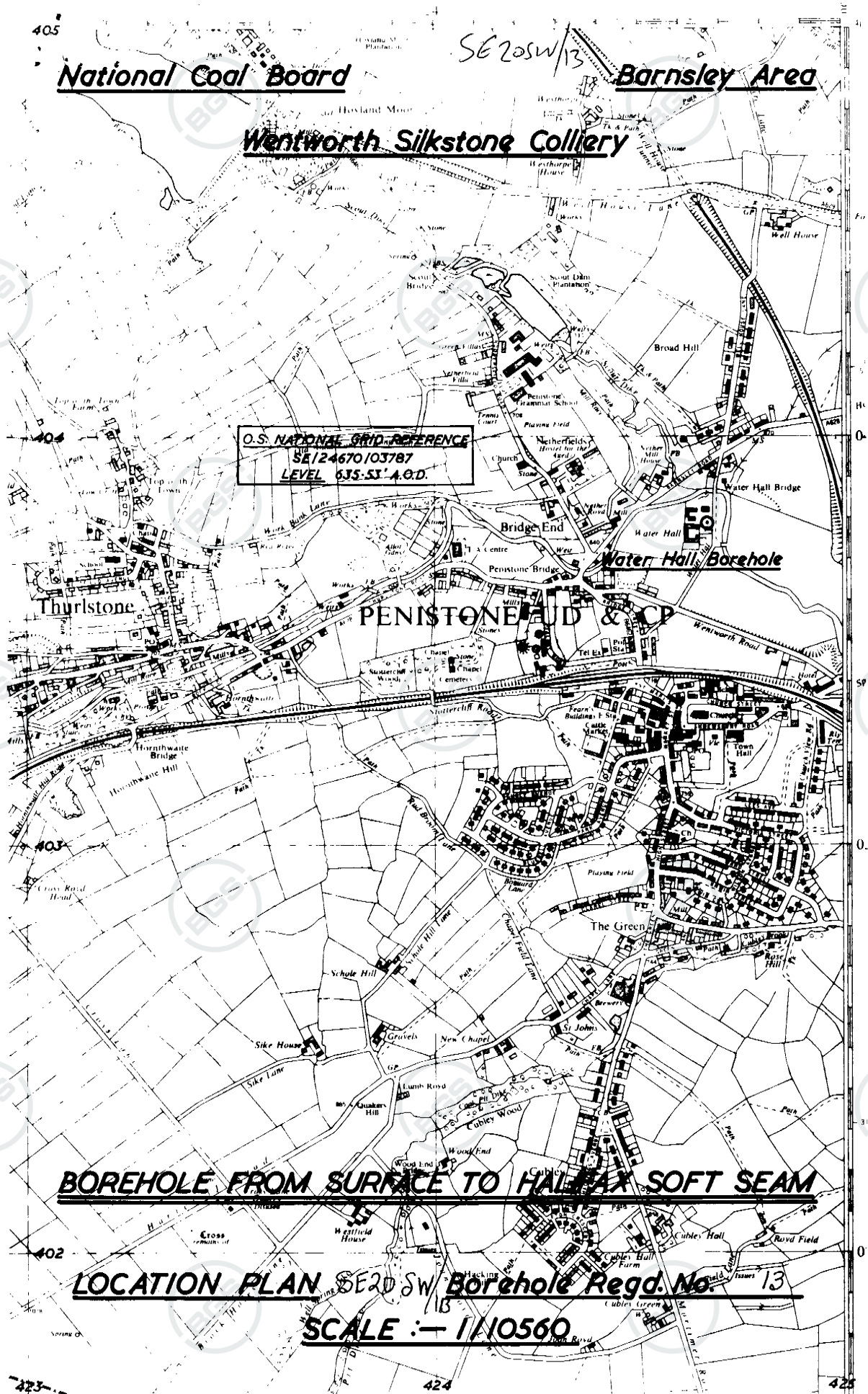
FORM P 71
SERIES 680

6-INCH MAP	B. H.
Yorks. 273 SE	
SE 20 SW	13

Section of WATER HALL Borehole

*Delete as appropriate

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS		DEPTH	
		m-or ft*	cm-or in*	m-or ft*	cm-or in*
HALIFAX SOFT	Dark grey silty shale with mussels and occasional <i>Naiadites</i> above 871'-8". Occasional fish remains and pyritic nodules below 871'-8" with mudstone becoming more carbonaceous near base	14.5	9	875	3 266.78
	Black carbonaceous shale with abundant fish remains throughout	0.23	9	876	0.2 67.00
	Coaly dirt intergrown with quartz lenses	0.10	4	876	4.2 67.11
	Inferior COAL 9"				
	COAL 11"	0.51	8	878	0.2 67.61
	Intergrown contorted carbonaceous mudstone-seatearth and coal	0.10	4	878	4.2 67.72
	Grey/brown immature mudstone-seatearth	0.23	9	879	1.2 67.94
	Grey immature silty mudstone-seatearth with ironstone nodules and abundant listric surfaces	0.18	7	879	8.2 68.12
	Grey siltstone-seatearth with roots, <i>Stigmaria</i>	0.25	10	880	6.2 68.38
	Grey immature silty mudstone-seatearth with roots and abundant listrics	0.13	5	880	11.2 68.50
	Grey micaceous siltstone with roots	0.30	0	881	11.2 68.57
	Pale grey sandstone with abundant complex micaceous partings	0.51	8	884	7.2 69.62
	Complexly interlaminated silt/sand	1.27	2 1/2	888	9.2 70.70
	BOTTOM OF BOREHOLE			889	6.2 71.12



National Coal Board

SE20SW13 **Barnsley Area**

Wentworth Silkstone Colliery

O.S. NATIONAL GRID REFERENCE
SE 124670 103787
LEVEL 635.51 A.O.D.

PENISTONE TUD & CO

Water Hall Borehole

BOREHOLE FROM SURFACE TO HALIFAX SOFT SEAM

LOCATION PLAN SE20SW Borehole Regd. No. 13

SCALE :- 1/10560

Appendix 6: Document Production Record

Document number	Editor	Position	Issue number	Date
Arbtech LQCMRAS366TSR1V0 45532043	C.A.Radiven BSc Hons MIENVSc MIMMM	Geo-Environmental Director	01	13/01/26

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