COAL MINING RISK ASSESSMENT FOR LAN AT 245 HECKMONDWIKE ROAD, DEWSBURY, WF13 3NF

18-08-09 Revision 0

REPORT STATUS: FINAL

SEPTEMBER 2018

Prepared for

YES Properties

245 Heckmonwike Road

Dewsbury

WF13 3NF

This report has been prepared under the framework of BS EN 9001:2008

Prepared by

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Table of Contents

EXECUTIVE SUMMARY

A Coal Mining Risk Assessment was required by Kirklees Council under Clause 11 of the National Policy Planning Framework. This report is required to support the planning application of the site.

In order to support a planning application for the subject site, ***YES Properties*** commissioned ***Demeter Environmental Ltd*** to undertake a Coal Mining Risk Assessment at Land Adjacent to No. 245 Heckmondwike Road, Dewsbury, WF13 3NF, to support the planning application for the erection of four dwellings.

The project has been carried out in accordance with the guidance provided by the Department of Energy and Climate Change, the Coal Authority's guidance document "Risk Based Approach to Development Management Resources for Developers Version 3" (2014) and CIRIA "SP32 Construction over Abandoned Mine Workings" (2002).

The project has been carried out within the existing legislative framework, which is outlined in Appendix B.

It should be noted that the table below only offers a brief summary of the information presented in this report and is for briefing purposes only. Reference should be made to the main report for detailed analysis undertaken.

Table 1: Executive Summary

	SUBJECT	DATA
SITE INFORMATION AND SETTING	Client	YES Properties
	Site	Land Adjacent to No. 245 Heckmondwike Road
	Site location	Off Heckmondwike Road, Dewsbury, WF13 3NF
	Grid Reference	422527E 422388N
	Access	Via Heckmondwike Road
	Proposed development	Erection of four dwellings
CONCEPTUAL SITE MODEL	Geology	The documented geology has been ascertained by the examination of British Geological Survey 1:50,000 Sheet 77 (Huddersfield) and the appropriate geological memoir is summarised hereunder. No drift deposits are recorded on the site. The solid geology is given as the Pennine Lower Coal Measures Formation of the Westphalian Epoch. Based on the outcropping coal seams the dip appears to be to the east.
	Coal	Three seams are likely to be present within 30mbgl.
	Site Investigation	N/A
Proposed Further Works		It is recommended to sink three boreholes to a nominal depth of 30mbgl. The boreholes should be triangulated around but not directly beneath the proposed development, to allow for assessing the dip and strike of any coal seams encountered within the upper 30m. In order to demonstrate the presence/absence of bell pits it is proposed that a series of trial trenches are to be excavated across the footprints of the buildings to determine if bell pits are present on the site.
This sheet is intended as a summary of the report; it does not provide a definitive analysis.		

1 INTRODUCTION

1.1 Coal Mining Risk Assessment Terms of Reference

1.1.1 This report presents the results of a Coal Mining Risk Assessment (CMRA) carried out within Land Adjacent to No. 245 Heckmondwike Road, Dewsbury, WF13 3NF, performed for ***YES Properties***. This report was written in August and September 2018 and should be read in the light of any subsequent changes in legislation, statutory requirements or industry practices.

1.1.2 The works were carried out in accordance with the standard terms of contract of ***Demeter Environmental Ltd***.

1.1.3 This report has been prepared in accordance to the Demeter Environmental Limited Quality Management System.

1.2 Aims and Objectives of Coal Mining Risk Assessment

1.2.1 The primary objective of the CMRA was to assess whether the site has the potential to be affected by underground mining.

1.2.2 This study includes a review of the available geological information in order to establish the likely ground conditions at the site. The review is based on the following information:

- Review of the Coal Authority Mining Report for the site;
- Review of data available from the BGS;
- Review of data from previous site investigation reports;
- Identification of likely ground conditions at the site based on the data obtained;

1.2.3 The findings and opinions provided in this document are made in good faith and are based on data provided by third parties (Groundsure, Environment Agency, The Coal Authority, and Regulatory Bodies) and the report should be read in conjunction with the limitations on the document control form.

1.3 Scope of Coal Mining Risk Assessment

1.3.1 The objectives of the coal mining risk assessment is to:

1. Present a desk based review of all available information within this report on the coal mining issues which are relevant to the site;
2. Use the information obtained to identify and assess the risks to the proposed development from coal mining legacy, including cumulative impact issues;

3. Set 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;

4. Demonstrate to the Local Planning Authority that the application is, or can be made safe and stable to meet the requirements of the National Planning Policy Framework and the requirements of the Coal Authority in respect of their determination of planning application consultations;

5. Minimise the risks and effects of land instability on properties, infra structure and the public;

6. Help to ensure that various types of development should not be placed in unstable locations without appropriate precautions;

7. Bring unstable land, wherever possible back into productive use; and

8. Assist in safeguarding public and private investment by a proper appreciation of site conditions and necessary precautionary measures.

1.3.2 The scheme has been designed taking into account the findings in the Coal Authority Report and this risk assessment as well as the requirements of the Coal Authority and the current National Planning Policy Guidance.

1.3.3 This report has been prepared in general accordance with the Coal Mining Risk Assessment Model Report Template and intends to demonstrate to the Local Planning Authority and the Coal Authority that the site is, or can be, made safe and stable, and to meet the requirements of the National Policy Planning Framework (NPPF).

1.4 Limitations of Data

1.4.1 It should be noted that it did not become a legal requirement to deposit coal mining abandonment plans until the 1870's and that this requirement was not rigorously enforced for some time after. Many shallow coal seams were worked prior to the introduction of first edition Ordnance Survey Maps and information on these workings is often not available. Therefore if coal seams were accessible then invariably they could have been worked by formal or informal means.

1.4.2 It is also possible that if unrecorded workings are present then unrecorded mine entries may be present.

1.5 Proposed Development

1.5.1 It is proposed that four dwellings are erected on the site, the proposed development is given on the Studio IQ drawings in Appendix B.

1.6 Principal Sources of Information

1.6.1 Documents that were available or have been obtained for reference or obtaining data are given in Appendix A. Further information on data used in this report and dates the data was obtained/accessed is given below:

Table 2: Summary of Information Obtained

Source	Data Provided	Date Obtained / Accessed
British Geological Survey	1:50,000 Geological Maps 1:10,000 Geological maps\ Borehole Section sheets	31st August 2018 31st August 2018 31st August 2018
Coal Authority	Interactive Map Viewer Coal Mining Report	31st August 2018 31st August 2018
Google Earth©	Aerial plates	31st August 2018

2 SITE CONTEXT

2.1 Site Location

2.1.1 The site is located off Heckmondwike Road, the approximate grid reference is 422527E 422388N, as shown on Drawing 1 and Plate 2 in Appendix B.

2.1.2 The site is located within the administrative jurisdiction of Kirklees Council.

3 SITE HISTORY

3.1 Historical O.S. Maps

3.1.1 The historical use of the site has been researched using maps that are held by Demeter Environmental no mining features could be discerned. The subject site appears to have formed part of Dewsbury Manor House.

3.2 Historical Aerial Photographs

3.2.1 Aerial photographs for the site were viewed using Google Earth©, no changes could be discerned.

3.3 Anecdotal Evidence

3.3.1 No additional information on the site history could be sourced.

3.4 Previous Reports

3.4.1 Demeter Environmental Limited has no knowledge nor has received any reports relating to the site or the surrounding area.

4 ENVIRONMENTAL SETTING

4.1 Published Geology – 1:50,000 Geological Maps

4.1.1 The documented geology has been ascertained by the examination of British Geological Survey 1:50,000 Sheet 77 (Huddersfield) and the appropriate geological memoir is summarised hereunder.

4.1.2 No drift deposits are recorded on the site.

4.1.3 The solid geology is given as the Pennine Lower Coal Measures Formation of the Westphalian Epoch.

4.1.4 Based on the outcropping coal seams the dip appears to be to the east.

4.2 Borehole Records

4.2.1 The BGS Borehole map indicates that there are no borehole records available in close proximity to the site.

4.2.2 A number of boreholes were present in close proximity to the site. The section sheets are presented in Appendix K and are summarised hereunder in Table 5:

Table 3: Summary of BGS Borehole Logs

Easting	Northing	Distance From Site (m)	Termination Depth (m)	Description
422600	422400	73m east	61m	Clay to 1.8mbgl Mudstone to 9.7mbgl Broken ground to 10.05mbgl Coal at 25.6mbgl (0.31m thick) Coal at 30.78m (0.31m thick) Coal at 56.38m (0.38m thick)

5 COAL MINING RISK ASSESSMENT (CMRA)

5.1 Coal Mining Referral Area Plans

5.1.1 Information obtained from the Coal Authority Interactive Viewer is given below.

Table 4: Summary of Information From The Coal Authority Interactive Map (Planning Theme)

Question	Discussion	Yes / No
1) Is the site within a Coal Mining Reporting (Standing Advice) Area?	The Coal Mining Reporting Area, also known as CON29M Coal and Brine Consultation Areas, is the known extent of coal mining activity and is used to determine whether a coal mining report is required for property transactions and the conveyance process. This area does not represent the full extent of geological coal reserves and resources.	Yes
2) Is the site within a 'Development High Risk' (Referral) Area?	The Development High Risk Area is the part of the coal mining reporting area, which contains one or more recorded coal mining related features which have the potential for instability or a degree of risk to the surface from the legacy of coal mining operations. The combination of features includes mine entries; shallow coal workings (recorded and probable); recorded coal mining related hazards; recorded mine gas sites; fissures and breaklines and previous surface mining sites. New development in this defined area needs to demonstrate that the development will be safe and stable taking full account of former coal mining activities. This area was formally known as the Development Referral Area.	Yes
Is the subject site within the zone of influence of any mine entries?	Mine entries indicate the entrance into a mine working, for which there are two types: shafts and adits. Mine shafts are vertical or near vertical entrances to a mine whereas adits are a walkable entrance to a mine as shown on plans held by the Coal Authority. Mine entry positions are taken from a variety of plan sources, which vary in age, scale, accuracy and condition. These factors determine the accuracy of the mine entry position derived. A Mine Entry with Potential Zone of Influence is the area of the ground that might be affected if subsidence of the mine entry occurs.	No
Are there any fissures within close proximity to the subject site?	Fissures and breaklines are types of geological disturbances which are lines of weaknesses at the surface which may have been affected by coal mining	No
Are there any mine gas sites in close proximity to the subject site?	A mine gas site is a site or property that has either been subject to investigation or remedial works by the Coal Authority to deal with an actual or potential mine gas occurrence.	No
Are there any records of past surface hazards in close proximity to the subject site?	A Past Surface Hazard is a site or property that has either been subject to investigation or remedial works by the Coal Authority under its Emergency Hazard Call-Out Procedures.	No
Are there any past or current surface mining in close proximity to the subject site?	Surface Mining Areas denote an area of coal extracted by surface excavations in the past or are being excavated currently, these sites do not necessarily reflect the extent of the excavation. Coal resources may still be available within these areas due to the inefficiencies of some historic mining techniques. These areas are often referred to as "opencast mining".	No
Are there any past shallow coal mine working in close proximity to the subject site?	Past shallow coal mine workings are derived from the Coal Authority's records of underground coal mine workings. This dataset has been created by extracting all those underground workings, or parts thereof, whose depth is 30 metres or less from the surface. Shallow workings do not have sufficient overlying strata therefore any movement has the potential to reach the surface and cause damage; approximately 50% of the accepted surface hazards are related to shallow workings, both recorded and unrecorded.	No
Is the subject site in an area/in close proximity to an area where there are probable shallow coal mine workings	Probable shallow coal mine workings contain locations and estimated extents of probable shallow underground workings for which no recorded plan exists, but where it is likely that workable coal at shallow depths has been mined before records were kept. The data has been estimated from available mining records by qualified mining surveyors.	Yes
If the subject site in an area where there are coal outcrops?	Coal Outcrops illustrate a location where a workable coal seam is present at or close to the surface.	Yes – on site the dip is to the right (1.7 degrees)

5.2 Summary of Consultants Coal Mining Report

5.2.1 Data provided by the Cal Authority in the Consultants Coal Mining Report is summarised below:

Table 5: Summary of Coal Authority Consultants Coal Mining Report

Section	Summary	Definition
Past Underground Mining	Yes	The Silkstone and Black Bed seams have been worked below the property at 30mbgl and 191mbgl, the dips were 4 degrees and 1.7 degrees to the north east. The extraction thickness of the Silkstone seam was 0.46m. 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	Yes	A coal seam is conjectured to outcrop on the site. 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	No	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	No	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	M357, M451 FGB709, CT26 M356, 5181 4332, CT40 951	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	Yes	The Wheatley Lime seam outcrops on the site. 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	No	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	No	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	No	Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.
Site investigations	No	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	No	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	No	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	No	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.
Mine water treatment schemes	No	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	No	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	No	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	No	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	No	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	No	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.
Payments to owners of former copyhold land	No	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.
Development advice	The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.	

5.3 Data From Historical O.S. Maps

5.3.1 No evidence of coal mining was observed in close proximity of the site on the historical O.S. maps.

5.4 Data from BGS Borehole Section Sheets

5.4.1 The BGS boreholes that are available in close proximity to the site are discussed in Clause 4.2 above and it can be seen that there is evidence of coal seams at 25.6mbgl, 30.78mbgl and 56.38mbgl in the borehole approximately 70m east of the site.

5.4.2 An area of broken ground (possibly a worked coal seam) was recorded at 10.05mbgl.

5.4.3 The shallowest dip of 4 degrees (dip of the shallowest seam under the site).

5.4.4 Based on this the shallowest seams will be at a depth of 5.1mbgl with the remaining two seams at depths of less then 30mbgl.

6 SUMMARY OF HAZARDS AND RISKS ASSOCIATED WITH FORMER MINING ACTIVITIES

6.1.1 The hazards associated with former mining activities, and associated hazards are summarised hereunder:

Table 6: Summary of Risks Associated With Former Mining Areas and Associated Hazards

Risk	Hazard	Consequence	Has Risk Been Identified?
Surface coal workings	Collapse of workings beneath buildings causing sudden loss of bearing to the structure (Consequence of 'Mild'). Collapse of the workings surrounding the buildings causing disruption to the infrastructure (Consequence of 'Minor'). Failure of unrecorded mine entries, areas of previously collapsed ground that have migrated to the surface beneath the building causing loss of bearing. Similar conditions may exist where coal may have been worked by primitive surface extraction (bell pits etc.) extraction at the crop of the seam (Consequence of 'Mild'). Failure of unrecorded mine entries, areas of previously collapsed ground or backfilled surface workings adjacent to the buildings causing disruption to the infrastructure, ad depending on the location, a loss of bearing to the structure (Consequence of 'Minor').	Mild/Minor – affect on building fabric Severe – acute risk to human health	Yes
Shallow coal mine workings		Mild/Minor – affect on building fabric Severe – acute risk to human health	Yes
Mine entries (shafts and adits)		Mild – affect on building fabric Severe – acute risk to human health	No
Mine entries (shafts and adits)	Entry	Severe – acute risk to human health	No
Gas emissions from coal mines including methane and carbon dioxide	Explosion / Asphyxiation	Mild – affect on building fabric Severe – acute risk to human health	No
Spontaneous combustion or ignition of coal which may lead to the production of carbon monoxide	Migration of mine gases from old mine workings and shafts to the surface results in explosion or the build-up of asphyxiating gases in confined areas. The effects can potentially cause serious structural damage to a building and loss of life. (Consequence of 'Mild' for buildings and 'Severe' for end users).	Mild – affect on building fabric Severe – acute risk to human health	No
Transmission of gases into adjacent properties from underground sources through ground fractures		Mild – affect on building fabric Severe – acute risk to human health	No
Coal mining subsidence	Consolidation of the workings and the overlying ground either as a result of self weight consolidation or foundation loading beneath the build area resulting in settlement damage to the structure (Consequence of 'Mild'). Consolidation of the workings and the overlying ground as a result of self weight consolidation adjacent to the buildings causing disruption to the infrastructure (Consequence of 'Minor').	Minor - affect on building fabric	No

7 COAL MINING RISK ASSESSMENT

7.1.1 Based on the information above, the risks associated with coal mining has been undertaken, which is presented hereunder:

Table 7: Coal Mining Risk Assessment

Risk	Is Risk Present?	Proposed Works	Indicative Remedial Measures if Hazards Are Present
Surface coal mine workings	Yes	**Discussion:** As coal is at or close to the surface on the site it is possible that there are bell pits within the site boundaries. Given that Bell pits were excavated from the surface, if present, can be identified by the presence of made ground / disturbed material on the site in the vicinity of the entrance to the bell pit. Bell pits, originally employed for the exploitation of clay-ironstone horizons, date from about the 13th century, and they were continued until the 17th century. These pits are generally found in areas thinly covered by superficial deposits and where the dip of the seam is low. In forming a bell pit, an unsupported shaft of about 1m diameter was sunk to the seam. The depth depended on the extent of overburden and the thickness and quality of the seam, but it rarely exceeded 12m. Mining proceeded radially from the base of this shaft until the area became too large to be naturally or artificially supported, when ventilation became restricted, or when the inflow of groundwater exceeded the rate of baling. The pit was then abandoned and a new one sunk nearby. In areas of intensive mining, shafts have been found as close together as 8 to 10 m. Bell pits were shallow pits seldom deeper than 10m and generally worked by two or three men for a short time only. Typically they were narrow shafts, a metre or so wide which on reaching the seam would spread up to 7-8m in diameter. **Proposals for Further Works:** In order to demonstrate the presence/absence of bell pits it is proposed that a series of trial trenches are to be excavated across the footprints of the buildings to determine if bell pits are present on the site. We do not consider the permission of The Coal Authority will be required for any ground investigation to be undertaken.	Once any risks posed by coal mining works have been identified by site investigation, the foundations of new structures on the development should be designed to effectively reduce any associated potential dangers. If voids and/or areas soft ground are encountered, the design will likely include ring type reinforced concrete foundations, designed to be capable of spanning a minimum of 6m, and of cantilevering at least 3m. Where coal is at or close to the founding depths, it may pose a risk to structures due to the potential for combustion and volume change (seams less than 0.5m or of poor quality are not regarded as a risk). In order to mitigate any risk the following is proposed: • A cover of 0.5m is maintained between the foundations and the coal • Where there is less than 0.5m cover the foundations will be taken through the coal The CIRIA publication 'Construction Over Abandoned Mine Workings' provides guidance on how to mitigate risks form shallow mine workings, namely; • Relocation of the building to any 'safe areas' of the site; • Stabilisation of any workings beneath the proposed buildings; • Use of a re-enforced raft foundation sat on a granular blanket; • Use of piled foundations taken to below the level of workings; or, • Use of a flexible foundation. • Use of a geo-grid beneath car parking.
Shallow coal mine workings (<30mbgl)	Yes	It is recommended that a ground investigation be undertaken to establish the extent of any workings, and to define the area that may require treatment. In the absence of any existing site investigation information, it is strongly recommended that a ground investigation be carried out. It is recommended to sink three boreholes to a nominal depth of 30mbgl. The boreholes should be triangulated around but not directly beneath the proposed development, to allow for assessing the dip and strike of any coal seams encountered within the upper 30m. If the boreholes identify the presence of workings at shallow depth, grouting of the worked seams may be required. Boreholes should be intermittently monitored for ground gas composition as the drilling works are advanced. Boreholes should be grouted to rockhead on completion using PFA/cement grout. Gas monitoring standpipes should be installed within the drift and should be monitored on at least 6 occasions for gas composition and flow rate. The results should be assessed against the guidance contained in CIRIA Publication C665 Assessing Risks Posed by Hazardous Ground Gases to Buildings. All site investigation works should be undertaken in accordance with British Standards BS 5930 'Code of Practice for Site Investigations' (1999), and British Standards BS 10175 'Investigation of Potentially Contaminated Sites – Code of Practice' (2011). Prior written permission from The Coal Authority is required for intrusive activities which will disturb or enter any coal seams, coal mine workings or coal mine entries (shafts and adits). No permission has been sought at this stage. An interpretive report should then be prepared to determine the extent and significance of any risk posed, and to inform foundation design and the drill and grout mitigation strategy.	Under the guidance laid out in PPG14 (withdrawn), where there are reasons for suspecting instability, the developer should determine by appropriate site investigations whether the land is capable of supporting the loads imposed and whether or not the site could be affected by ground movements due to past, present or foreseeable future mining activities. Where coal is at or close to the founding depths, it may pose a risk to structures due to the potential for combustion and volume change (seams less than 0.5m or of poor quality are not regarded as a risk). In order to mitigate any risk the following is proposed: • A cover of 0.5m is maintained between the foundations and the coal • Where there is less than 0.5m cover the foundations will be taken through the coal The CIRIA publication 'Construction Over Abandoned Mine Workings' provides guidance on how to mitigate risks form shallow mine workings, namely; • Relocation of the building to any 'safe areas' of the site; • Stabilisation of any workings beneath the proposed buildings; • Use of a re-enforced raft foundation sat on a granular blanket; • Use of piled foundations taken to below the level of workings; or, • Use of a flexible foundation. • Use of a geo-grid beneath car parking.

8 WATCHING BRIEF

8.1.1 Should any anomalous features be identified during development works, then a mining/structural engineer should be contacted for advice, and the features should be investigated further so that appropriate mitigation measures can be taken as necessary.

9 THE COAL AUTHORITY PERMISSIONS

9.1.1 Prior written permission from The Coal Authority is required for intrusive activities that will disturb or enter any coal seams, coal mine workings or coal mine entries (shafts and adits). Further information on The Coal Authority's permissions process can be found at: http://www.coal.gov.uk/services/permissions/index.cfm. Permissions have not yet been sought, but will need to be prior to any intrusive investigation

APPENDIX A: REFERENCES

The following documents were available or have been obtained for reference or obtaining data:

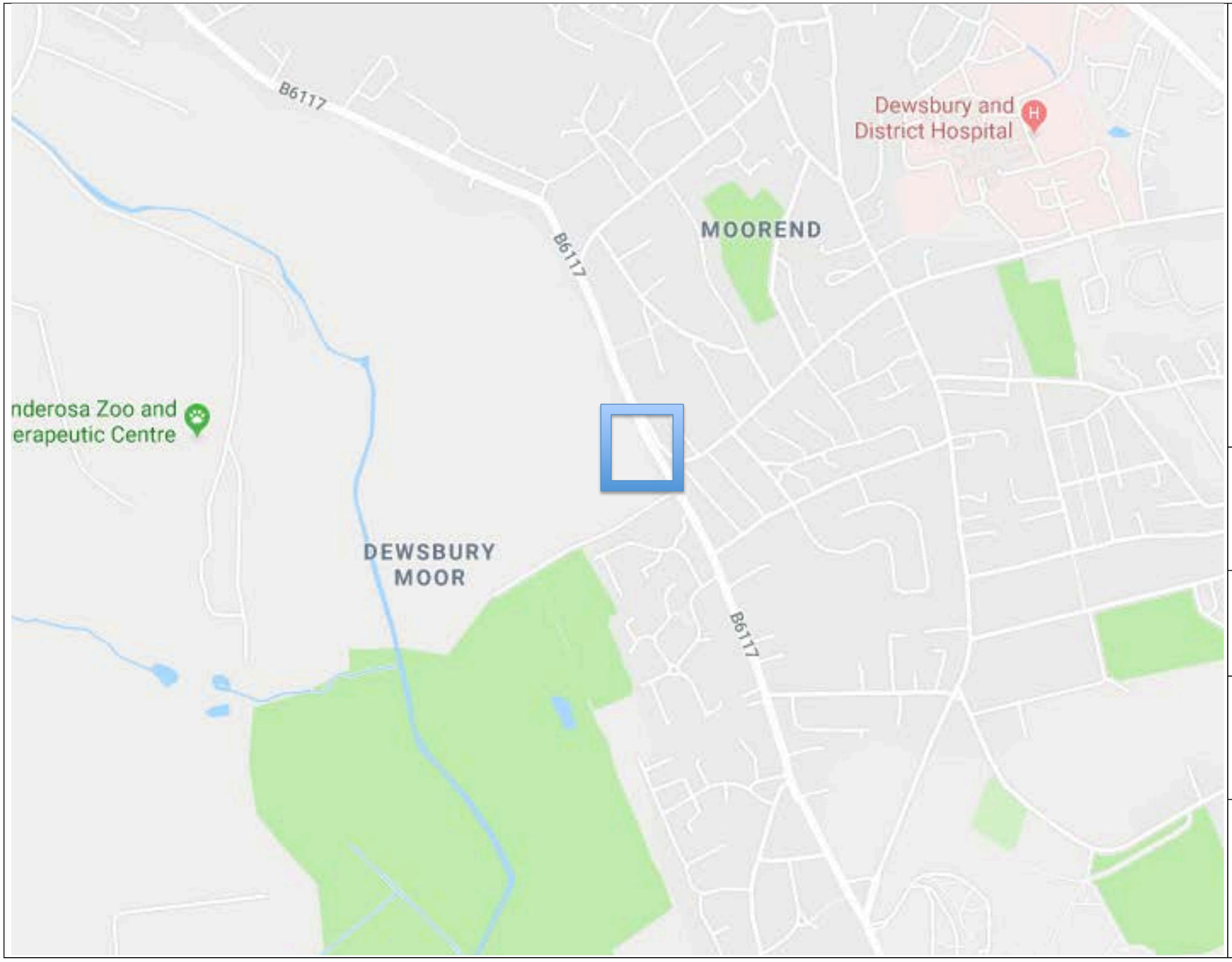
Groundsure Report			
BGS Borehole Record Viewer			
The Environmental Protection Act	1990		
The Contaminated Land (Wales) Regulations	2006		
The Contaminated Land (Scotland) Regulations	2000		
The Environment Act	1995		
The Radioactive Contaminated Land (Modifications of Enactments) (England) Regulations	2006		
The Radioactive Contaminated Land (Modifications of Enactments) (Wales) Regulations	2006		
The Radioactive Contaminated Land (Scotland) Regulations	2007		
The Water Resources Act	1991		
The Water Act	2003		
The Water Environment and Water Services (Scotland) Act	2003		
The Water (Northern Ireland) Order	1999		
The Wildlife and Country Act	1981		
The Conservation (Natural Habitats, etc.) Regulations	1994		
The Town and Country Planning Act	1990		
The Town and Country Planning (Scotland) Act	1997		
The Building Control Act	1990		
The Construction Design and Maintenance (CDM) Regulations	2007		
The Control of Substances Hazardous to Health (COSHH) Regulations	2002		
The Factories Act	1961		
The Offices, Shops and Railway Premises Act	1963		
The Health and Safety at Work, etc. Act	1974		
The Pollution Prevention and Control Act	1999		
The Control of Pollution Act 1994 as amended	1994		
The Environmental Damage (Prevention and Remediation) Regulations	2009		
The Environmental Damage (Prevention and Remediation) (Wales) Regulations	2009		
The Environmental Liability (Scotland)	2009		
The Environmental Protection (Duty of Care) Regulations	1991		
The Environmental Permitting (England and Wales) Regulations	2007		
The Pollution Prevention and Control (Scotland) regulations	2000		
Guidance on investigations for ground gas. Permanent gases and Volatile Organic Compounds (VOCs)	2013	BS 8576:2013	2013
Good practice on the testing and verification of protection systems for buildings against hazardous ground gases	CIRIA	C735	August 2014
Investigation of Potentially Contaminated Sites	BSI	BS10175:2011+A:2013	2013
Guidance on investigations for ground gas. Permanent gases and Volatile Organic Compounds (VOCs)	BSI	BS 8576:2013	2013
Environmental Protection Act 1990: Part 2A - Contaminated Land Statutory Guidance	DEFRA	-	April 2012
Environmental Protection Act 1990: Part 2A – Contaminated Land	DEFRA	Circular 1/2006	September 2006 (withdrawn April 2012)
National Planning Policy Framework	Communities and Local Government	-	24 July 2018
Guiding Principles for Land Contamination	Environment Agency	GPLC1 / GPLC2 / GPLC3	March 2010
Planning and Pollution Control	ODPM	PPS23	November 2004 (withdrawn March 2012)
Circular 22/87: Development of Contaminated Land	Welsh Government	22/87	August 1987
Planning Advice Note PAN 33	Scottish Government	PAN 33	October 2000
Contaminated Land Statutory Guidance for Wales	Welsh Government	WG15450	2012
Explanatory Memorandum to the Contaminated Land	Welsh Government	-	February

(Wales) (Amendment) Regulations 2012 and the draft Contaminated Land Statutory Guidance 2012			2012
NHBC Standards	NHBC	-	2014
Code of Practice for Ground Investigations	BSI	BS5930:2015	July 2015
Technical aspects of site investigations in relation to land contamination	Environment Agency	EA P5-065/TR:2000	2000
Contaminated Land Risk Assessment: A Guide to Good Practice	CIRIA	C552	2001
Secondary model for the development of appropriate soil sampling strategies for contaminated land	Environment Agency	EA P5-066/TR:2000	2000
Remedial Targets Methodology - Hydrogeological Risk assessment for Land Contamination	Environment Agency		2006
The physical properties of the minor aquifers in England and Wales	BGS		2000
A framework for assessing the impact of contaminated land on groundwater and surface water	Department of the Environment	DOE CLR 1	1994
Environment Agency technical advice to third parties on Pollution of Controlled Waters for Part IIA of the Environmental Protection Act 1990.	Environment Agency		May 2002
Guidance on Preliminary site inspection of contaminated land	Department of the Environment	DOE CLR 2	1994
Documentary search on industrial sites	Department of the Environment	DOE CLR 3	1994
Sampling strategies for contaminated land	Department of the Environment	DOE CLR 4	1994
Information systems for land contamination	Department of the Environment	DOE CLR 5	1994
Prioritisation + categorisation procedure for sites which may be contaminated	Department of the Environment	DOE CLR 6	1995
Model Procedures for the Management of Land Contamination	Environment Agency	CLEA CLR 11	September 2004
A quality approach for contaminated land consultancy	Department of the Environment	DOE CLR 12	1997
Human health toxicological assessment of contaminants in soil	Environment Agency	Science Report SC050021/SR2	January 2009
Updated technical background to the CLEA model	Environment Agency	Science Report SC050021/SR3	January 2009
A review of body weight and height data used within the Contaminated Land Exposure Assessment model (CLEA)	Environment Agency	SC050021/ Technical Review 1	2009
Compilation of Data for Priority Organic Pollutants for Derivation of Soil Guideline Values	Environment Agency	Science Report SC050021/SR7	2008
The UK Approach for Evaluating Human Health Risks from Petroleum Hydrocarbons in Soil	Environment Agency	Report P5-080/TR3	2005
Review of the Fate and Transport of Selected Contaminants in the Soil Environment	Environment Agency	Draft Technical Report P5-079/TR1	2003
Guidance on Comparing Soil Contamination Data with a Critical Concentration	CL:AIRE/ CIEH		May 2008
Various toxicology reports	Environment Agency / DEFRA	CLR TOX1-24	Various dates
Industry Profiles	DEFRA		Various dates
Radon: guidance on protective measures for new developments	BRE	BRE 211	November 2007
Contaminated Land management manual	LQM	LQM2000	2000
Assessing risks posed by hazardous ground gases to buildings (revised)	CIRIA	CIRIA C665	December 2007
Code of practice for the design of protective measures for methane and carbon dioxide ground gas for new buildings	BSI	BS 8485:2015	2015
Using Soil Guideline Values		Science Report SC050021/SGV Introduction	March 2009
Soil guideline values for inorganic arsenic	Environment Agency	SC050021/ arsenic SGV	May 2009
Soil guideline values for mercury	Environment Agency	SC050021/ mercury SGV	April 2009
Soil guideline values for selenium	Environment Agency	SC050021/ selenium SGV	April 2009
Soil guideline values for benzene	Environment Agency	SC050021/ benzene	April 2009

		SGV	
Soil guideline values for toluene	Environment Agency	SC050021/ toluene SGV	April 2009
Soil guideline values for ethylbenzene	Environment Agency	SC050021/ ethylbenzene SGV	April 2009
Soil guideline values for xylenes	Environment Agency	SC050021	April 2009
Supplementary information for the derivation of for inorganic arsenic	Environment Agency	SC050021	May 2009
Supplementary information for the derivation of for mercury	Environment Agency	SC050021	April 2009
Supplementary information for the derivation of for selenium	Environment Agency	SC050021	April 2009
Supplementary information for the derivation of for benzene	Environment Agency	SC050021	April 2009
Supplementary information for the derivation of for toluene	Environment Agency	SC050021	April 2009
Supplementary information for the derivation of for ethylbenzene	Environment Agency	SC050021	April 2009
Supplementary information for the derivation of for xylenes	Environment Agency	SC050021	April 2009
Contaminants in soil: updated collation of toxicological data and intake values for humans : Inorganic Arsenic	Environment Agency	SC050021/Tox 1	May 2009
Contaminants in soil: updated collation of toxicological data and intake values for humans : Mercury	Environment Agency	SC050021	April 2009
Contaminants in soil: updated collation of toxicological data and intake values for humans : Selenium	Environment Agency	SC050021	April 2009
Contaminants in soil: updated collation of toxicological data and intake values for humans : Benzene	Environment Agency	SC050021	April 2009
Contaminants in soil: updated collation of toxicological data and intake values for humans : Toluene	Environment Agency	SC050021	April 2009
Contaminants in soil: updated collation of toxicological data and intake values for humans : Ethylbenzene	Environment Agency	SC050021	April 2009
Contaminants in soil: updated collation of toxicological data and intake values for humans : Xylenes	Environment Agency	SC050021	April 2009
Reclamation of Contaminated Land	Wiley		2004
Policy and Practice For The Protection of Groundwater	Environment Agency		1999
CIRIA Special Publication 102 - Remedial Treatment for Contaminated Land - Volume II: Decommissioning, Decontamination and Demolition	CIRIA	SP102	January 1995
Guidance on the Safe Development of Housing on Land affected by Contamination	Environment Agency	R&D Publication 66	2008
ProUCL User Guide and Technical Guide	USEPA	-	
Guidance on the assessment of and monitoring of natural attenuation of contaminants in groundwater	Environment Agency	R&D Publication 95	2000
The standard penetration test in insensitive clays and soft rocks	Proceedings of the European Symposium on Penetration Testing in the UK	-	1988
Protection of Workers and the General Public During Development of Contaminated Land	HSE	HSG66	September 1991
Trenching practice. 2nd edition	CIRIA	R97	2001
Desiccation in clay soils	BRE	412	February 1996
Methods of test for soils for civil engineering purposes	BSI	BS1377 (Parts 1 to 9)	1990
Eurocode 7: Geotechnical Design – Part 1: General Rules British	BSI	BS EN 1997-1	2004
Eurocode 7: Geotechnical Design – Part 2: Ground Investigation and Testing	BSI	BS EN 1997-2	2007
Geotechnical investigation and testing. Field testing. Electrical cone and piezocone penetration test	BSI	BS EN ISO 22476-1	2012
Geotechnical Investigation and Testing – Field Testing Part 2: Dynamic Probing	BSI	BS EN ISO 22476-2+A1	2011
Geotechnical Investigation and Testing – Field Testing Part 3: Standard Penetration Test	BSI	BS EN ISO 22476-3+A1	2011
Geotechnical investigation and testing. Field testing- Ménard pressuremeter test	BSI	BS EN ISO 22476-4	2012
Geotechnical investigation and testing. Field testing - Flexible dilatometer test	BSI	BS EN ISO 22476-5	2012
Geotechnical investigation and testing. Field testing - Borehole jack test	BSI	BS EN ISO 22476-7	2012
Geotechnical investigation and testing. Field testing – Flat dilatometer test	BSI	BS EN ISO 22476-11	2006

Geotechnical investigation and testing. Field testing - Mechanical cone penetration test (CPTM)	BSI	BS EN ISO 22476-12	2009
The standard penetration test (SPT): methods and use	CIRIA	R143	1995
Low-rise Buildings on Shrinkable Clay	BRE	BRE Digest 240 and 241	1993
Settlement of structures on clay soils	CIRIA	SP27	1983
Piled foundations in weak rock	CIRIA	R181	1999
Theoretical soil mechanics	Terazaghi	-	1943
Soils for civil engineering purposes	BSI	BS 1337	1990
Groundwater Control – Design and Practice	CIRIA	C515	2000
Trees in relation to design, demolition and construction. Recommendations	BSI	BS 5837	2012
Workmanship on Building Sites	BSI	BS 8000	Various
ICRCL 61/84 Notes on the fire hazards of contaminated land	ICRCL	61/84	1986
Soakaway Design	BRE	Digest 365	1991
Design guidance for road pavement foundations (draft HD 25) (Revision 1)	Highways Agency	Draft HD25	2006
Building Regulations Approved Documents	HM Government	Various	2013

APPENDIX B: DRAWINGS



Demeter Environmental Ltd
Liverpool Office:
Hanover House
Hanover Street
Liverpool
L1 3DZ

Tel: 0151 521 2539
Fax: 0151 909 3661

Brighton Office:
Gemini House
136-140 Old Shoreham Road
Brighton, East Sussex
BN3 7BD
Tel: 01273 741 727

Email: enquiries@demeter-environmental.co.uk

Drawing 1

LA 245
Heckmondwike Road

Scale: NTS

Site Location Plan

Demeter Environmental Ltd
Liverpool Office:
Hanover House
Hanover Street
Liverpool
L1 3DZ

Tel: 0151 521 2539
Fax: 0151 909 3661

Brighton Office:
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136-140 Old Shoreham Road
Brighton, East Sussex
BN3 7BD

Email: enquiries@demeter-environmental.co.uk

Drawing 2

LA 245
Heckmondwike Road

Aerial Plate

Date Taken: 2016

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Hanover Street
Liverpool
L1 3DZ

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Fax: 0151 909 3661

Brighton Office:
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136-140 Old Shoreham Road
Brighton, East Sussex
BN3 7BD
Tel: 01273 741 727

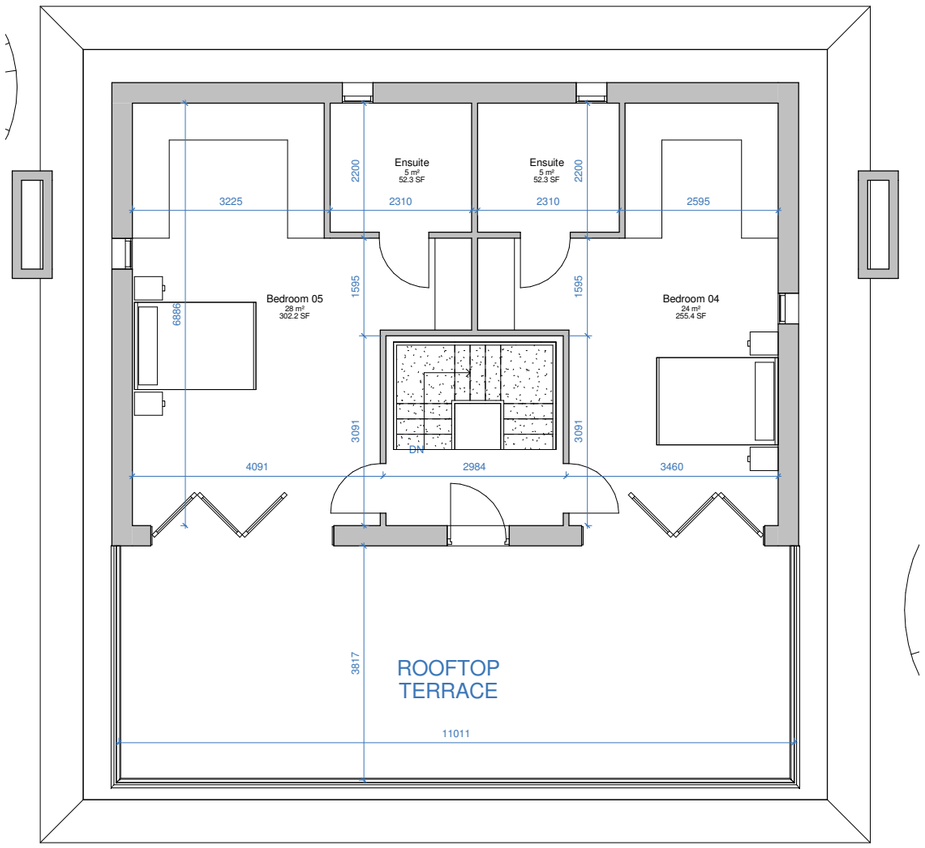
Email: enquiries@demeter-environmental.co.uk

Drawing 3

LA 245
Heckmondwike Road

Scale: 1:500 at A3

Site Layout



1 **Second Floor Plan**
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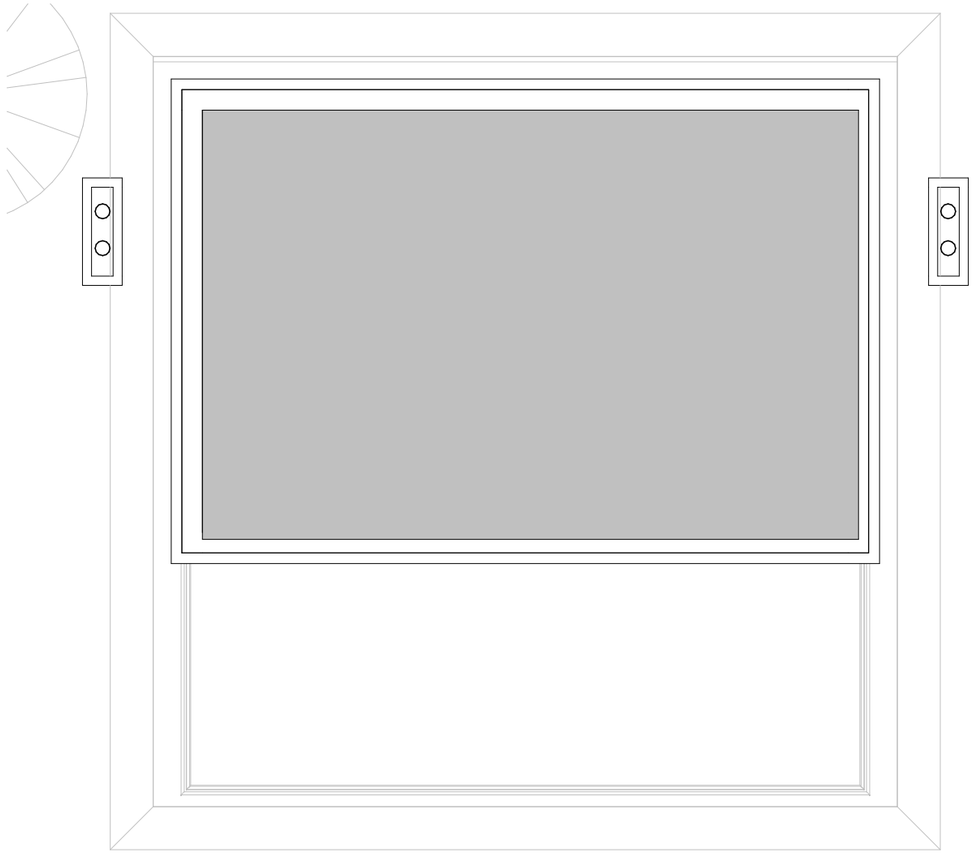

2 **Roof Plan**
1 : 50

PROJECT INFORMATION

CLIENT
Mr T Zaman

ADDRESS
243 Heckmondwike Road, Dewsbury, WF13 3NF

PROJECT TITLE
Residential Developement Comprising of 4 Detached Dwellings

DRAWING DETAILS

PROJECT NUMBER
IQ18.026

DRAWING NUMBER REV
GA105

DRAWING TITLE

Proposed GA Plans 02

SCALE (@ A1 [x2 for A3])
1 : 50

DRAWN BY Author
CHECKED BY Checker

DATE
06/20/17

Purpose of Issue
Planning

NOTES

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Rev	Description	Date

The Studio. No 96 Blacker Road, Huddersfield HD1 5HN

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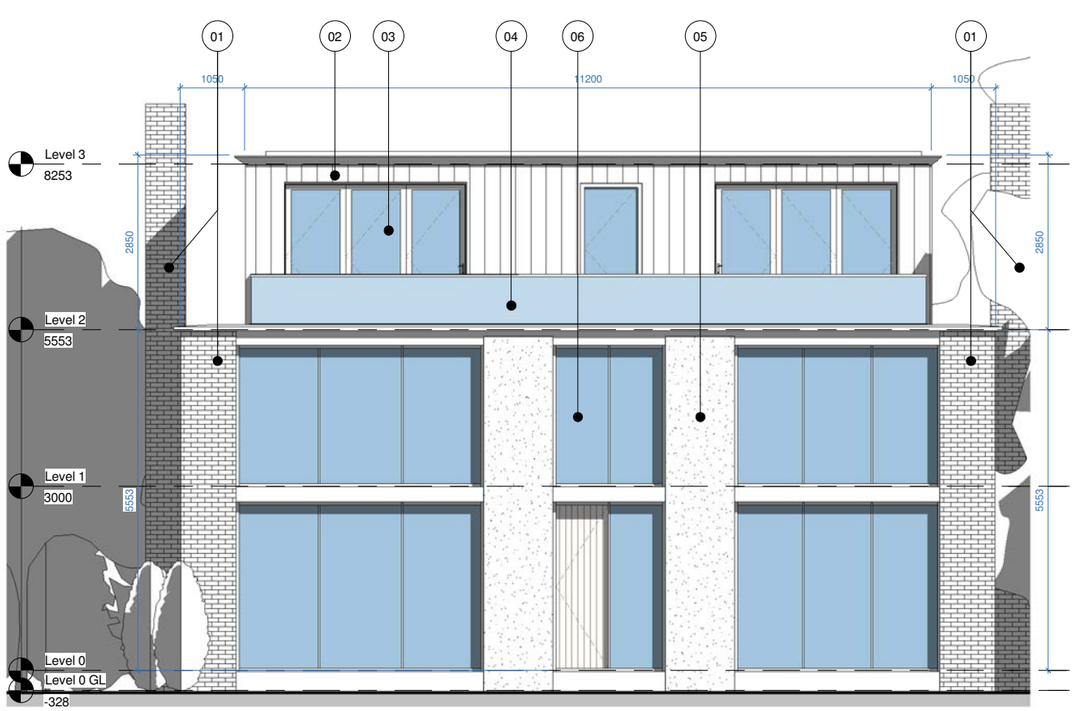
8/16/2018 12:52:37 PM



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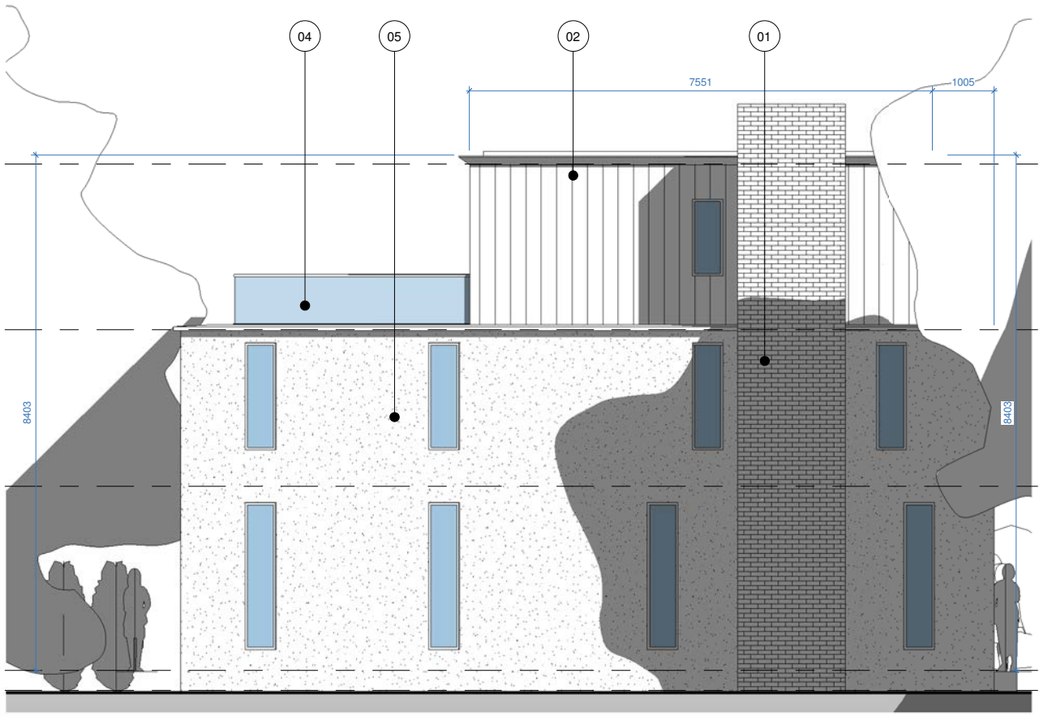

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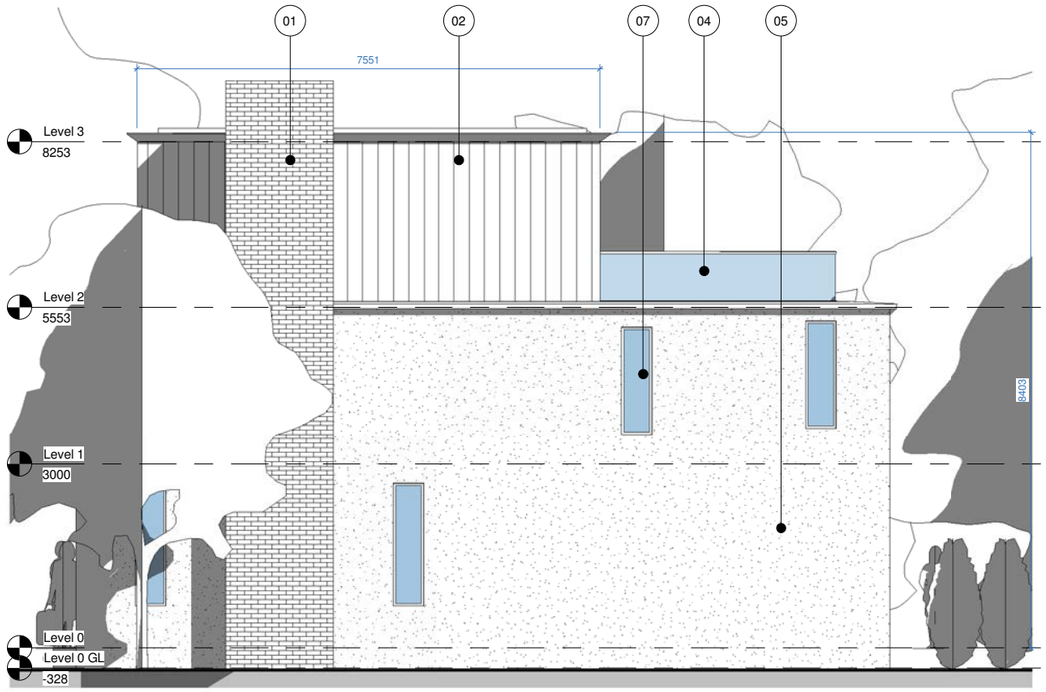

3 Proposed Side Elevation 02
1 : 50

4 Proposed Rear Elevation
1 : 50

PROJECT INFORMATION

CLIENT
Mr T Zaman

ADDRESS
243 Heckmondwike Road, Dewsbury, WF13 3NF

PROJECT TITLE
Residential Developement Comprising of 4 Detached Dwellings

DRAWING DETAILS

PROJECT NUMBER
IQ18.026

DRAWING NUMBER REV
GA202

DRAWING TITLE

Proposed GA Elevations

SCALE (@ A1 [x2 for A3])
1 : 50

DRAWN BY Author
CHECKED BY Checker

DATE
06/19/17

Purpose of Issue

Feasibility

NOTES

This drawing is for infomation only.

Notes GA202	
01	Facing Stone
02	Grey Cladding
03	Grey Bifolding Doors
04	Glass Balustrade
05	White Render
06	Full Height Glazing
07	Grey Framed Glazing

Rev Description Date

STUDIO IQ

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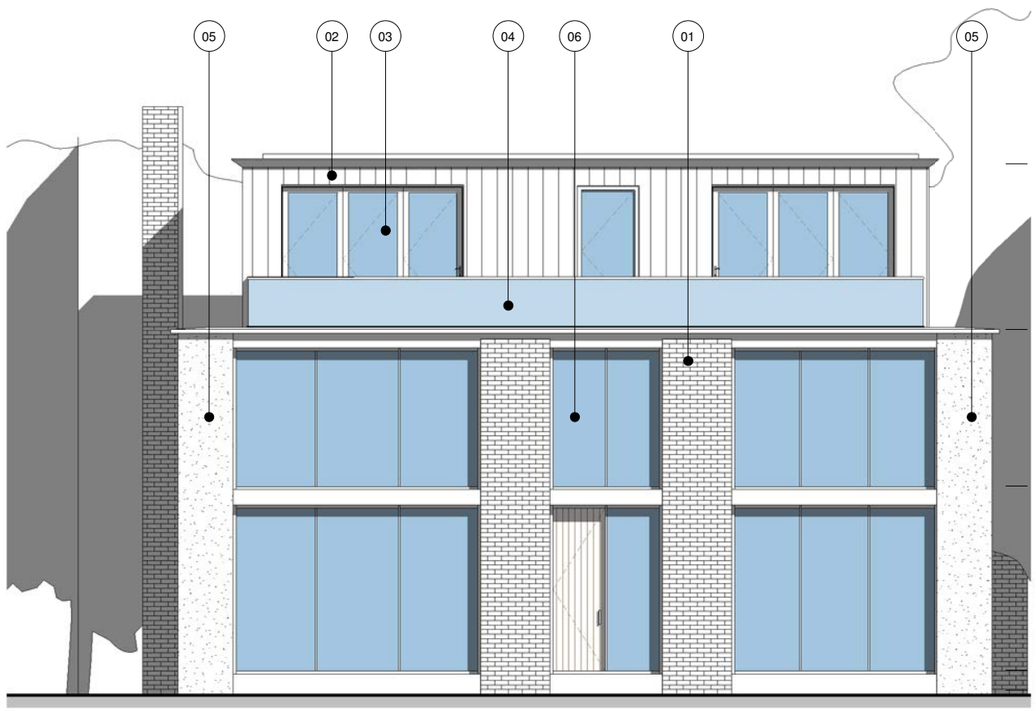

1 Proposed Front Elevation HT02
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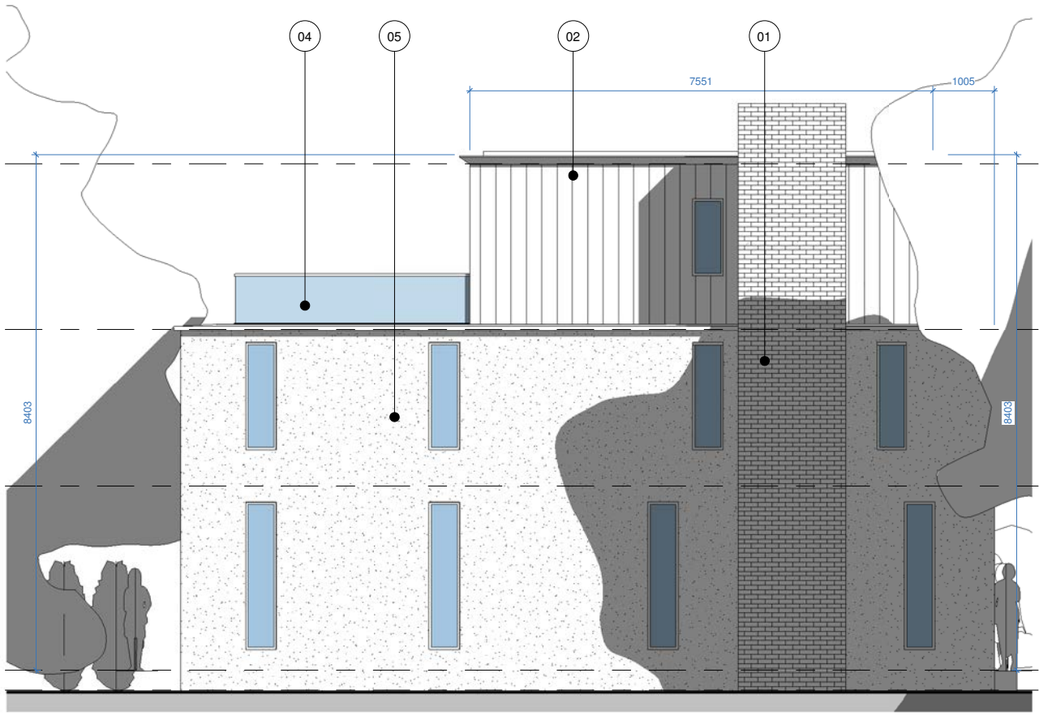

4 Proposed Side Elevation H02
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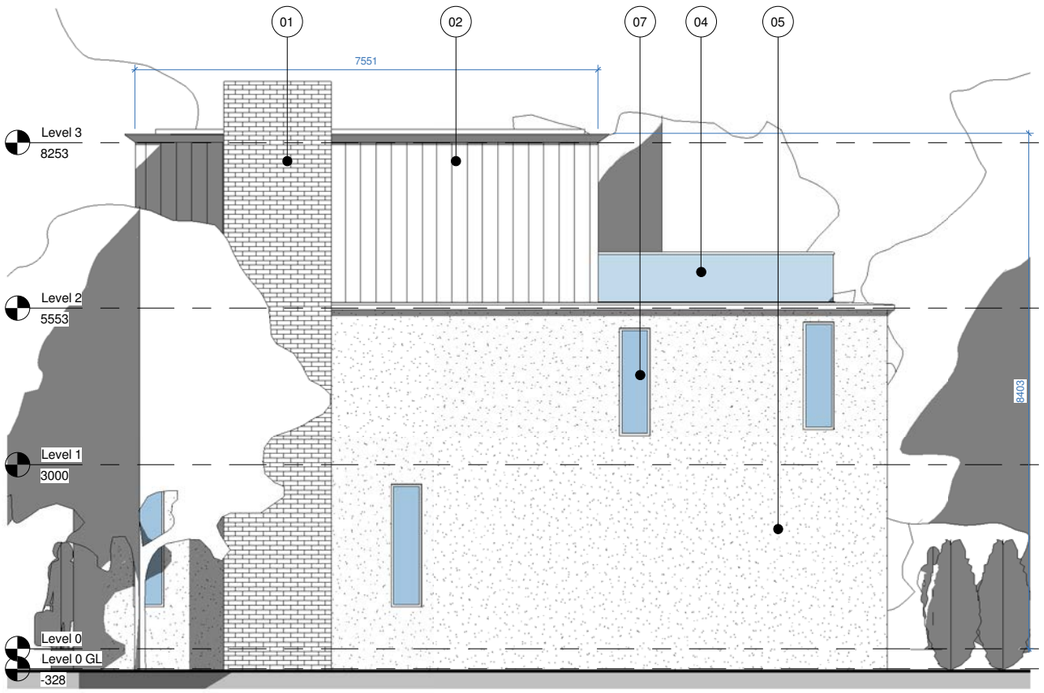

3 Proposed Side Elevation 02 H02
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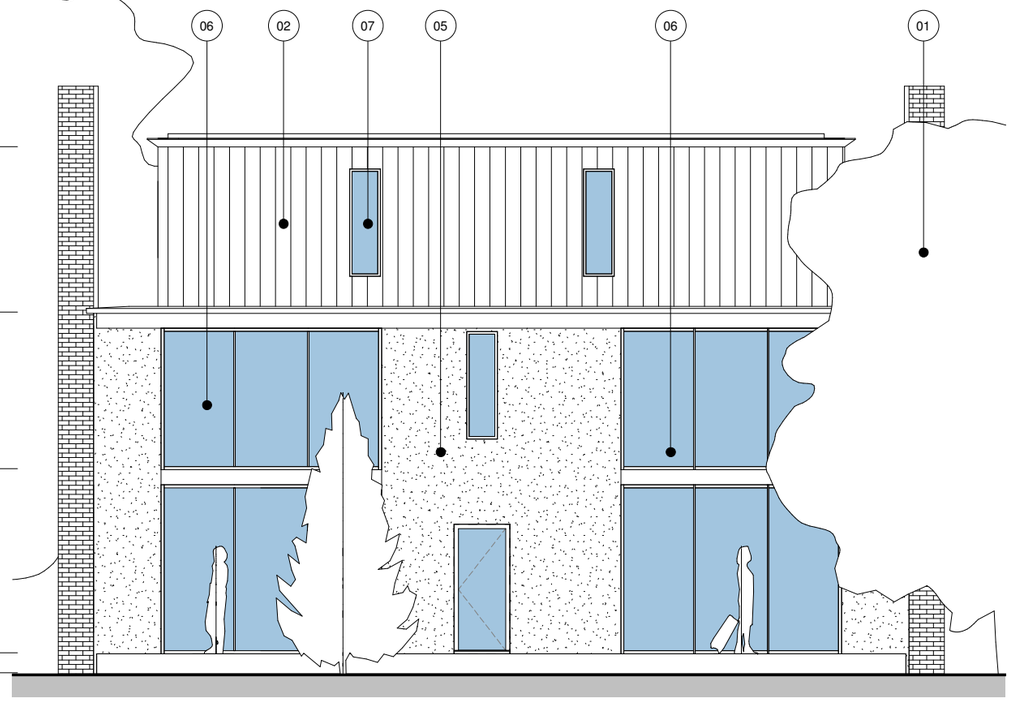

2 Proposed Rear elevation HT02
1 : 50

PROJECT INFORMATION

CLIENT
Mr T Zaman

ADDRESS
243 Heckmondwike Road, Dewsbury, WF13 3NF

PROJECT TITLE
Residential Developement Comprising of 4 Detached Dwellings

DRAWING DETAILS

PROJECT NUMBER
IQ18.026

DRAWING NUMBER REV
GA204

DRAWING TITLE

Proposed GA Elevations H02

SCALE (@ A1 [x2 for A3])
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DATE
08/08/18

Purpose of Issue

NOTES

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Notes GA202	
01	Facing Stone
02	Grey Cladding
03	Grey Bifolding Doors
04	Glass Balustrade
05	White Render
06	Full Height Glazing
07	Grey Framed Glazing

Rev	Description	Date

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8/16/2018 12:52:49 PM

1 **3D View - Front**

2 **3D View - Rear**

PROJECT INFORMATION

CLIENT
Mr T Zaman

ADDRESS
243 Heckmondwike Road, Dewsbury, WF13 3NF

PROJECT TITLE
Residential Developement Comprising of 4 Detached Dwellings

DRAWING DETAILS

PROJECT NUMBER
IQ18.026

DRAWING NUMBER REV
GA401

DRAWING TITLE
3d Views

SCALE (@ A1 [x2 for A3])

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DATE
06/12/18

Purpose of Issue
Planning

NOTES

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Rev	Description	Date

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APPENDIX C: COAL AUTHORITY REPORT

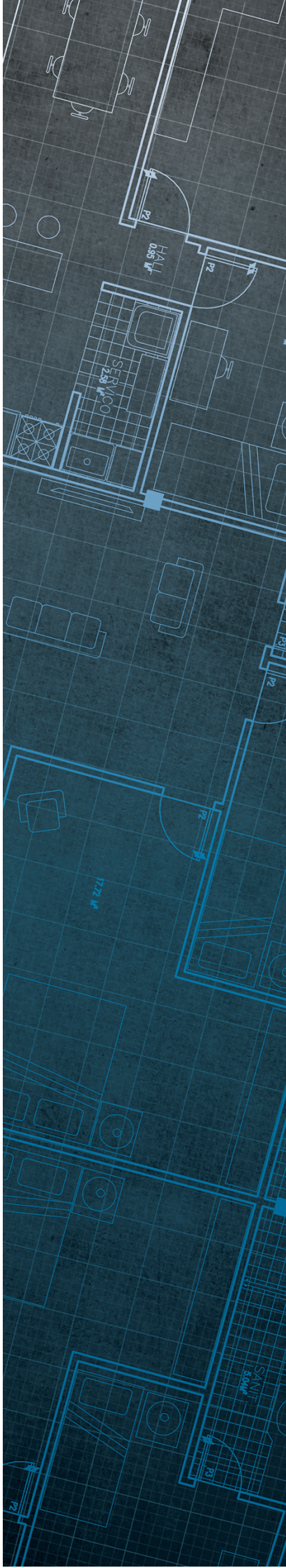
The Coal Authority

Consultants

Coal Mining Report

245 Heckmondwike Road
Dewsbury Moor
Dewsbury
Kirklees
WF13 3NF

Date of enquiry:	**30 August 2018**
Date enquiry received:	**30 August 2018**
Issue date:	**30 August 2018**
Our reference:	**51001901467001**
Your reference:	**18-08-09-01**



Consultants

Coal Mining Report

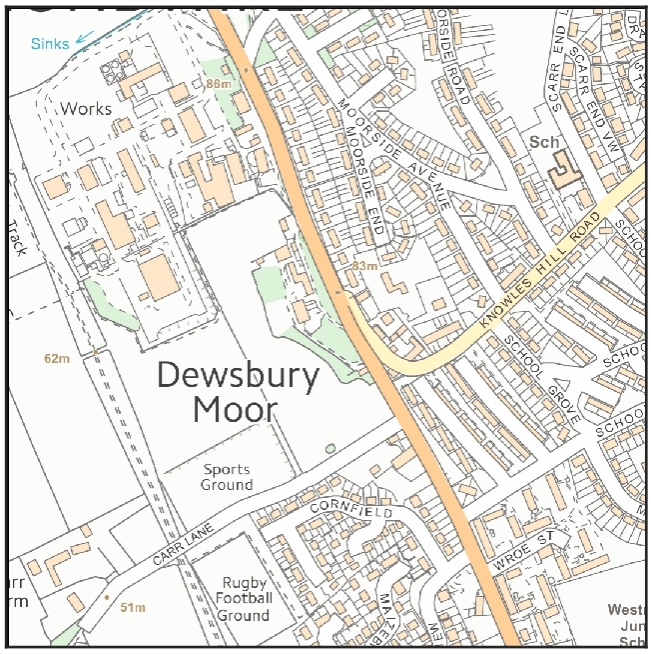
This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

Despo Hadjikyriacou

Enquiry address

245 Heckmondwike Road
Dewsbury Moor
Dewsbury
Kirklees
WF13 3NF



Approximate position of property

How to contact us

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

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.groundstability.com

@coalauthority
/company/the-coal-authority
/thecoalauthority
/thecoalauthority

Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	SILKSTONE	Coal	6HPU	30	Beneath Property	4.0	North-East	46	1857
unnamed	BLACK BED	Coal	6HQB	191	Beneath Property	1.7	East	74	1893
unnamed	BLACK BED	Coal	6HQD	215	South-West	6.8	East	69	1905
unnamed	BETTER BED	Coal	6HQG	232	South-East	4.1	East	38	1900

Probable unrecorded shallow workings

Yes.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

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

M357	M451	FGB709
CT26	M356	5181
4332	CT40	951

Our records show we have more plans than those shown above which could affect the enquiry boundary.

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

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
WHEATLEY LIME	Coal	Yes	Within	N/A	348

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 31st October 1994.

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

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

Mine gas
None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes
None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining
None recorded.

Coal mining licensing
None recorded within 200 metres of the enquiry boundary.

Court orders
None recorded.

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

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

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

Payments to owners of former copyhold land
The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Section 4 – Further information

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

Development advice

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

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

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.

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.

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VAT receipt

Issued by	The Coal Authority 200 Lichfield Lane Mansfield Nottinghamshire NG18 4RG
Tax point date	30 August 2018
Issued to	DESPO HADJIKYRIACOU 24 ALEXANDRA DRIVE BOOTLE SEFTON L20 0EF
Property search for	245 HECKMONDWIKE ROAD DEWSBURY MOOR DEWSBURY KIRKLEES WF13 3NF
Reference number	51001901467001
Date of issue	30 August 2018
Cost	£106.79
VAT @ 20%	£21.36
Total received	£128.15
VAT registration	598 5850 68