NEW ROAD FARM
VARTEG ROAD
BLAENAVON

ENVIRONMENTAL STATEMENT

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NEW ROAD FARM, VARTEG ROAD, BLAENAVON

ENVIRONMENTAL STATEMENT

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1.0 INTRODUCTION

1.1 Background

This Environmental Statement (ES) has been prepared to accompany and support a full planning application made to Torfaen County Borough Council in respect to the development of houses on a parcel of land currently used for agriculture.

1.2 Planning Context

Section 54a of the Town and Country Planning Act 1990 (as amended) requires that the development plan is the starting point for the determination of planning applications. In this instance, the development plan comprises of the Gwent Structure Plan 1991-2006 and the Torfaen Local Plan adopted July 2000.

Structure Plan Policy H2 indicates that new housing will be located in or immediately adjoining urban areas on land identified in local plans. The proposal is in accord with this policy, as not only does the site abut an urban area, but the site is also specifically identified for residential development in Policy S1 of the Torfaen Local Plan. The site is, therefore, specifically identified for residential development in the relevant planning policy documents.

Nevertheless, there are other designations which have to be taken into consideration; in particular the site falls within a Landscape of Outstanding Historical Interest, which is addressed at Policy C6 of the Gwent structure Plan, and Policy H7 of the Torfaen Local Plan. In essence, these policies seek to protect the overall integrity of the landscape, and as will be seen this has been one of the main objectives when developing the current proposal. As a result, the proposal is in accord with the development plan.

Material planning considerations include the advice contained in Planning Policy Wales (March 2002), in which the fostering of sustainable development is a high priority. In this instance the scheme not only meets the objectives of achieving a resource efficient settlement pattern and minimising travel by private car, as the site located within walking distance of the town centre and on a bus route, but also achieves a number of further objectives. In particular, it will provide a range and choice of quality housing, which the Local Plan identifies as being required, as well as helping underpin local services and facilities which are failing following decades of population decline.

1.3 The Proposed Development

The proposed development may be seen on separate drawings which have been submitted with the planning application.

The design consists of eleven separate blocks of houses which are accessible from an infrastructure of winding roads.

Houses contained within the separate and individual blocks compose detached, semi detached and terraced units as well as flats and maisonettes. The properties vary in size, from having one to five bedrooms and from having two to three stories. In total there are 119 properties.

The development reflects a housing structure which represents many features that are characteristic of the layout and aesthetic appearance of Blaenavon. The housing and winding roads emulate the traditional urban landscape of a South Wales valley town.

The parcel of land identified for the scheme has not been able to provide a living income to the owner since the late 1980's, and the landscape features such as the stone wall field boundaries have deteriorated significantly. Furthermore, a number of the trees within the field boundaries are in poor health and will, over time, die. The resultant loss of field boundaries and the trees which they contain will degrade the landscape if nothing is done to arrest this decline. The proposed scheme proposes to maintain the best two of the three remaining field boundaries within the site, but will also remove the dead and dieing trees and replant in their place. As a result these important landscape features will be retained for the future.

1.4 Alternatives

1.4.1 Alternative Development

The original scheme submitted for the site (see Drawing 0417-002 in Appendix A) was abandoned following its review in preparation for the Environmental Assessment.

The design was a generic, suburban housing estate and clearly did not reflect the houses that currently exist at Blaenavon.

Following the abandonment of the original scheme ESHA Architects were appointed; the company has a national reputation for resolving design issues on difficult sites. Alan Baxter and Associates, specialist highway consultants were also appointed.

Changing the personnel involved with the scheme brought about alterations to the proposed design. These changes are discussed in Section 3.1

1.5 Background Work for the Environmental Statement

All contributors to this document undertook comprehensive investigations of the site and surrounding area during the course of the baseline studies.

Information regarding the environmental status of the site has been gathered to determine the environmental impacts envisaged as a result of the development.

1.6 Consultation

The purpose of this section is to provide an overview of the consultation process followed to date in respect of the proposed development. The process entailed consultation with competent bodies and interested parties. The primary objective of involving competent bodies and interested parties at the early stage in the Environmental Impact Assessment process is to aid scoping of the EIA.

1.7 Procedures and Structure of the EIS

Prior to the preparation of the planning application a screening exercise was conducted with Torfaen County Borough Council. This exercise was carried out to determine if an EIA was needed for the proposed development.

1.7.1 The Screening Opinion

The initial request for a screening opinion under Regulation 5 of the Town and Country Planning (Environmental Impact Assessment) Regulations 1999 (The Regulations) was made to the Environmental Services Department of Torfaen County Borough Council in 6th July 2004. A screening document detailing the proposed development and the likely environmental impacts was supplied to Torfaen County Borough Council in order to allow them to make their decision. The formal Screening Opinion was provided by Torfaen County Borough Council on 8th November 2004. The Screening Opinion concluded that an Environmental Statement was required.

This Environmental Statement has been prepared to accompany and support a full planning application to Torfaen County Borough Council for the development of housing at New Road Farm, Varteg Road in Blaenavon.

1.8 Environmental Statement

An Environmental Impact Assessment (EIA) is a study carried out to ensure that all the potential environmental effects of a proposed development are considered and assessed, and that the subsequent need for any mitigation measures are described.

An Environmental Statement (ES) is the report produced as a result of an EIA and is reviewed by the Local Planning Authority and its statutory consultees as part of the planning process.

1.8.1 The Format of the Environmental Statement

Schedule 4 (Part 1) of The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (as amended) sets out the form of information to be included in the Environmental Statement. In order to satisfy this, the ES has been divided into the following sections: -

1. Description of the development, including in particular: -

   - a description of the physical characteristics of the whole development and the land-use requirements during the construction and operational phases;
   - a description of the main characteristics of the production processes, for instance, nature and quantity of the materials used;
   - an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc) resulting from the operation of the proposed development.

2. An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects.

3. A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.

4. A description of the likely significant effects of the development on the environment, which should cover the direct effects and any direct, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from: -

   - the existence of the development;

   - the use of natural resources;

   - the emission of pollutants, the creation of nuisances and the elimination of waste, and the description by the applicant of the forecasting methods used to assess the effects on the environment.

5. A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.

6. A non-technical summary of the information provided under paragraphs 1 to 5 of this Part.

2.0 DESCRIPTION OF THE SITE AND EXISTING ENVIRONMENT

2.1 Site Location

The site is located on Varteg Road to the south of Blaenavon town at National Grid Reference SO 253 083. Drawing ES1534.ES.01 in Appendix A shows the location of the proposed site on the southern side of the Afon Lwyd valley. The boundary of the site is outlined in red on Drawing ES1534.ES.02 in Appendix A

An Envirocheck Report has been obtained for the site. The report contains information from various sources, including the Environment Agency on the environmental aspects of the site. The full report can be found in Appendix B.

2.2 Existing Site

In general, the site slopes from the southwest to the northeast. The majority of the 4.65 hectare site is open field with mature trees and dry stone walls lying within the site boundary. No hedgerows lie within the site boundary. Planning Drawing 0418-001 in Appendix A shows the current layout and topography of the site. The site is presently used for the grazing of livestock.

The farm buildings are situated on the western boundary of the site and comprise a farmhouse, barn and garage. These buildings are to be incorporated in to the scheme as a whole with the barn being converted into an individual dwelling.

A wooded ravine and watercourse are present in the north western corner of the site. The watercourse is culverted as it enters and leaves the site. This area will not be developed as part of the proposed housing scheme.

2.3 Proximity of Houses and Centres of Population

Blaenavon is the nearest town to the development site. This is located on the northern side of the Lwyd valley at approximately 150m from the site.

Terraced, semi-detached and detached houses are all found at Blaenavon. These houses are generally located along the roads that run through the Lwyd valley. Most of the existing houses overlook the valley and therefore the proposed site.

2.4 Land Use

The site is currently used for agricultural purposes and is grazed by cattle over winter and sheep during the summer. The three fields that make up the site are interconnected and the entire area is openly grazed by the animals.

2.5 Traffic and Infrastructure

There is currently no developed infrastructure at the site within the area to be developed. New Road Farm is accessed from Varteg Road which is located to the east of the farm.

2.6 Topography

The site is located on the southern side of the Lwyd valley and is steep sided with an incline to the north east. A deep sided ravine cuts through the north western area of the site. The topography of the site can be seen on Planning Drawing Planning Drawing 0418-001 in Appendix A.

Two stone quarries were previously excavated at the site. Historical evidence has shown that these quarries have been filled.

2.7 Geology

The British Geological Survey was contacted to confirm the soil types found at the site. The full report of this assessment can be found in Appendix I. The results of the assessment are summarised below.

2.7.1 Soils

During the site investigation samples were taken from each soil horizon for analysis. The soil horizons found are described below: -

Artificial Ground – Black ash fill is present (0.91 – 2.0m thickness) in the north west and south of the site according to BGS boreholes (BHSO20NE/13-15).

Superficial Deposits – The site area is covered with glacial till. Although there are no boreholes within the site area, thicknesses up to 10m have been recorded in the surrounding area. The likely composition of the till in the area is stiff brown clay with frequent gravels, cobbles and boulders.

To the north east of the site, alluvium associated with the Afon Llwyd has been mapped which is likely to comprise rounded sands and gravels in a sandy/silty clayey matrix. The thickness is unknown due to the lack of boreholes within the site area, but up to and exceeding 6m of alluvium has been recorded by others to the north west.

Bedrock Depth – The depth to bedrock is estimated to be around 10m.

Bedrock Geology – The regional dip is approximately 8º to the south west and the bedrock comprises four formations, the boundaries of which trend in a north west – south east orientation across the area.

The Gilwern Oolite of Dinantian (Carboniferous) Age comprises Dolomitised Limestone and Dolomite and is the oldest of the four formations and lies in the north eastern area of the site area.

Overlying the Gilwern Oolite to the south west is the Llanelly Formation of Carboniferous Age and comprises fine-grained, thinly bedded peritidal limestones.

The Millstone Grit of Namurian (Carboniferous) Age overlies the Llanelly Formation and is composed of three divisions comprising interbedded pebbly grits, conglomerates, shales and sandstones.

In the southwest corner of the site area the South Wales Lower Coal Measures are present, comprising up to 150m of interbedded sandstones, mudstones, ironstones and coals.

2.7.2 Coal Mining

To determine the existence of past and present mining within the area of the site a Coal Mining Report was obtained from the Coal Mining Authority. The report can be seen in Appendix J. The results of this report are summarised below.

2.7.2.1 Past, Present and Future Underground Mining

Underground Mining – The site area is not within a zone of likely physical influence on the surface from past, present or future underground coal workings.

The Coal Authority has no record of any notice of the risk of the land being affected by subsidence being given under S.46 of the Coal Mining Subsidence Act 1991.

2.7.2.2 Shafts, Adits and Surface Geology

Shafts and Adits – The Coal Authority have no knowledge of any mine entries within, or within 20 metres of the boundary of the site area.

2.7.2.3 Past, Present and Future Opencast Mining

Opencast Mining – The site is not located within the geographical boundary of an opencast site from which coal has been extracted by opencast methods in the past, within 200 metres of the geographical boundary of an opencast site within which coal is being extracted at present or within 800 metres of the geographical boundary of an opencast site for which a licence to extract coal by opencast methods is awaiting determination.

Subsidence – The Coal Authority records do not disclose any damage notice or claim having been given, made or pursued in respect of the site area since 1st January 1984 or disclose any current "Stop Notice" affecting the site area.

Nor have there been any requests made to the Coal Authority to execute preventative works under S.33 of the Coal Mining Subsidence Act 1991.

Withdrawal of Support – The site does not lie within a geographical area of which a notice of entitlement to withdraw support has been published.

Working Facilities Orders – The site area is not within a geographical area that is the subject of an order made under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

Payments to Owners of Former Copyhold Land – The site area is not within an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

2.7.3 Site investigation

Due to the presence of two filled quarries at the site a site investigation was undertaken to confirm the presence or absence of contamination. A water course that runs along the eastern boundary of the site originates from a cemetery located to the south. The site investigation was also carried out to confirm if any contamination exists at the site as a result of this pathway between the site and cemetery.

As a result of the predominantly agricultural history and the absence of major development at the site it is unlikely that significant contamination will be found (see Section 2.16).

Four trial pits were excavated at the site. The location of these trial pits can be seen in Drawing ES1534.ES.04 in Appendix A. Trial pit A was located within the largest quarry. Trial pit B was located down gradient of the largest quarry. Trial pit C and D was excavated at the lowest point at the site. As this location is the lowest point of the site any contamination at the site will migrate to this location. By analysing the soil at this location the presence or absence of contamination was confirmed. The logs of these trial pits describing the soil types found within each trial pit can be found in Appendix K. The results of the laboratory analysis of the trial pits can be found in Appendix L.

Trial pit A confirmed that the largest quarry is filled with inert materials. All four trial pits confirmed that there is no contamination at those locations.

2.8 Hydrogeology

The site lies on a Major Aquifer designated as High Vulnerability. The carboniferous limestone is a highly permeable formation with the presence of significant fracturing. The limestone is highly productive and able to support large abstractions for potable water supply and other purposes. The Groundwater Vulnerability map is shown in Appendix H.

The soils in the area are classed as having high leaching potential, and are readily available to transmit non-absorbed pollutants and liquid discharges. The soils have some ability to attenuate absorbed pollutants because of their large clay or organic matter content.

2.9 Hydrology

The nearest major watercourse is the Afon Llwyd which lies approximately 10m to the north of the site. The Afon Llwyd runs southeast to northwest through Blaenavon.

At the nearest sampling point to the site (19m from the boundary) the river was classed as Fairly Good (C) in 2002 with respect to chemical and biological quality.

The deep sided ravine running through the site to the north east, contains fast flowing water leaving a culvert to the south that flows north where it discharges into the Afon Llwyd to the north of the site. Other minor water channels exist within the site boundary however, these dry up at certain times of the year.

2.9.1 Flooding

The Welsh Assembly Government have produced TAN15 Development Advice Maps, which provide an indicative view of the areas at risk from flooding. The maps are based on upon the Environment Agency's 0.1% (1in1000 year) extreme flood outline.

The TAN15 Advice Map for the development area (see Appendix B) shows that the site does not fall within a flood area.

2.10 Air

2.10.1 Dust

Background Air Quality

Field measurements have been taken for particulate matter. Environmental monitoring pumps were set up at the locations shown on Drawing ES1534.ES.03 in Appendix A. Each pump was set up to draw air through a pre-weighed filter at a flow rate of 2 l/s. The pumps were left in-situ for eight hours. After the set period the filters were sent to a UKAS accredited laboratory to be re-weighed and the weight of particulate matter determined.

The concentration of particulate matter in the air was determined by comparing the weight of dust on the filter with the volume of air drawn through the filter over the set period. The results of the monitoring are contained in the table below: -

Table 1 – Background Dust Concentrations

LOCATION	WEIGHT OF DUST	AIR CONCENTRATION
Location 1	<0.1 mg	<0.1 mg/m^3
Location 2	<0.1 mg	<0.1 mg/m^3
Location 3	<0.1 mg	<0.1 mg/m^3
Location 4	<0.1 mg	<0.1 mg/m^3

From the above table it can be seen that the values of particulate matter recorded in the area were less than 0.1 mg/m^3. These values are typical of rural areas.

Larger particles (greater than 30 μm) would tend to settle out within 100 metres of the source site, although it is possible that finer particles may be transported from the site over greater distances.

2.10.2 Noise

The immediate area around the proposed development is predominantly rural. However, there are several residences close to the site boundary. These include two new houses opposite New Road Farm adjacent to Varteg Road, the four properties at Oakfield Terrace, and the flats on Riverside Drive.

Environmental Baseline Conditions

Data to establish the existing noise climate of the area was obtained by taking field measurements in July 2004.

The survey was carried out using a Cirrus Research CR: 811 Type 1 Noise Level Meter. The noise meter was calibrated at the beginning and end of the survey using a Cirrus Research CR: 510 Series Acoustic Calibrator (reference level 94dB at 1000Hz). The calibrator and meter had been calibrated within the last year against a reference set to UKAS requirements. There was no drift in calibration level during the survey.

At all measurement locations the noise-measuring microphone was mounted in a free field position at 1.5 metres above ground. The noise measuring instrumentation satisfies the requirements for type 1 sound level meters as specified by British Standard BS EN 60804: 1994.

Daytime measurements were taken on 20th July 2004. The weather was clear and sunny with a wind speed of 5mph and temperature of 21^{o}C.

Four locations were chosen to represent the most sensitive receptors. The locations chosen are shown on Drawing ES1534.ES.03 in Appendix A and are as follows: -

Location 1 – New Road Farm
Location 2 – Opposite flats at Riverside Drive

Location 3 – Site Boundary (SE)
Location 4 – Opposite Oakfield Terrace

Based on the results of the noise surveys and examination of the time history data, the following levels were recorded at the four locations, as shown in Table 2 below.

Table 2 – Recorded Noise Levels

LOCATION	DAY TIME	
	L_{eq} dBA	L_{90} dBA
Location 1	65	44
Location 2	57	44
Location 3	58	45
Location 4	57	47

The L_{eq} level is the ambient noise level at that location. The L_{90} value is the sound level exceeded for 90% of the stated measurement period and represents the background noise level. From the table above it can be seen that the noise levels recorded at each location are similar, both for ambient and background levels.

The majority of noise at each location resulted from traffic utilising the main Varteg Road and access road to Riverside Drive.

2.11 Landscape and Visual Impact Assessment

2.11.1 Landscape

The development lies within an ICOMOS World Heritage Site and the Historic Landscape Character Area 018 as listed on the Register of Landscapes of Historic Interest in Wales.

The existing landscape character of the area is partly defined by the significance of its transport links which reflect the industrial development of Blaenavon.

The area surrounding Blaenavon town is covered by a palimset of the remains of early mineral working, processing, transportation networks and water tops. These industrial aspects of the area, together with the town, lie in a surrounding landscape of open mountainous moorland that was primarily used for grazing livestock, with little or no evidence of permanent settlement until the Late Medieval Period.

The proposed site is situated on the southern side of the Afon Llwyd valley. As such the site is in open view of some properties located higher up on the north side of the valley in the town of Blaenavon. Two new properties have also been built to the west of the site on the opposite side of Varteg Road. These new properties overlook the site.

Several mature trees are located along the ravine and on the western area of the site.

2.11.2 Visual Impact Assessment

A Visual Impact Assessment has been carried out at the site. This has been done in accordance with 'Guidelines for Landscape and Visual Impact Assessment' issued by the Landscape Institute and Institute of Environmental Management and Assessment (IEMA).

The LANDMAP methodology defined by CCW was not used as the ASIDOHL methodology provides a more appropriate and robust assessment of the likely impacts of development upon the landscape. Therefore, the above IEMA guidelines have been used to assess the visual impact of the development only, whilst the ASIDOHL has been used to assess the landscape impact.

The plates of photographs taken during the assessment are presented in Appendix F and the results of this assessment can be seen in Appendix G.

The visual envelope (defined as 'the area within which the existing site and proposed development are visible') is indicated on Drawing ES1534.ES.05 in Appendix A.

Due to the location of the site within a deep sided valley many of the views into the site are mostly open and direct from the opposite side of the valley with few trees screening the site. Mature trees are present within the site however, they do not screen the site fully.

Due to the topography of the area and the land utilisation, there are several long and short distance views of the site. All viewpoints of the site are considered in this assessment.

2.11.2.1 Viewpoint Selection

A Visual Impact Assessment only assesses viewpoints from public locations. Therefore the views of the site from private property are not included in the assessment.

To determine the location of sensitive viewpoints, 1:10,000 Ordnance Survey plans were reviewed. Subsequently, a site walkover was undertaken to refine the locations 'in the field' and to establish the visual receptors which may be potentially affected by the scheme.

Viewpoints have been selected on the following basis: -

Significant overview of the site from: -

- Residential areas close to the site
- Residential areas at a moderate distance

- Principal road corridor.

The viewpoint appraisal was aided by a photographic record. Photographs were taken using a digital camera positioned at eye level.

Photographs were taken as close to the boundaries of properties as possible without entering private land.

On the above basis, the following locations (see Drawing ES1534.ES.06 in Appendix A) were adopted: -

Viewpoint L1	-	New houses on Oakfield Terrace
Viewpoint L2	-	Houses No. 1, 2 and 4 on Oakfield Terrace
Viewpoint L3	-	Riverside Bungalow
Viewpoint L4	-	Avon House
Viewpoint L5	-	Flats on Riverside Drive
Viewpoint L6	-	Brynavon Housing
Viewpoint L7	-	Avondale Housing
Viewpoint L8	-	Capel Newydd Avenue and Coed Road Junction
Viewpoint L9	-	Griffin Avenue
Viewpoint L10	-	Greenfield Place
Viewpoint L11	-	Eastern area of Capel Newydd Avenue
Viewpoint L12	-	Glade Bungalow on Cwmavon Road
Viewpoint L13	-	James Street
Viewpoint L14	-	Llanover Road Allotments, Lyngene and Llanover Villa on Llanover Road
Viewpoint L15	-	Coed Road and Llanover Road Junction
Viewpoint L16	-	Coed Wood
Viewpoint L17	-	Western area of Capel Newydd Avenue
Viewpoint L18	-	Coed Llwyd Close
Viewpoint L19	-	Giles Road
Viewpoint L20	-	Elgan Avenue House numbers 87 - 100
Viewpoint L21	-	Rifle Street
Viewpoint L22	-	Elgan Avenue House numbers 131 - 144

The locations of these viewpoints are indicated in Drawing ES1534.ES.06 in Appendix A.

Viewpoint L1 - New Houses on Oakfield Terrace

These two newly built residential properties lie to the west of the site. This location enables a direct view of the southern area of the site. The houses are built upon a banked area which is higher than the location from where the photograph was taken.

Viewpoint L2 - Houses No. 1, 2 and 4 on Oakfield Terrace

These three residential properties lie to the west of the site just north of viewpoint L1. Although trees do screen some of the northern area of the site the southern area is in direct view.

Viewpoint L3 - Riverside Bungalow

This residential property lies to the north of the site on the other side of the Afon Lwyd. A large hedgerow screens the view of the site so there are no direct views from within the property boundary. At the drive-way in to the property there is a partially screened view of the site.

Viewpoint L4 - Avon House

This west facing residential property has a partially screened view of the site during the winter due to the site's elevated location on a bank and trees located along the site of the Afon Lwyd. During the summer months the view of the site will be fully screened as a result of more foliage on the trees.

Viewpoint L5 - Flats on Riverside Drive

The south facing bottom floor flats within this complex have a partially screened view of the site due to the site's elevated location. However, upper floor flats will have an increased open view of the site as they are on a similar height as the proposed development.

Viewpoint L6 - Brynavon Housing

These single storey houses are situated to the north west of the site. As the site is at a higher level than the houses and more trees are present in the north west area of the site, the view from this housing area is partially screened. The flats on Riverside Drive also screen the eastern area of the site from these houses.

Viewpoint L7 - Avondale Housing

Views from the south facing Avondale complex of housing is screened by trees located within the site boundary and the presence of the 7 terraced houses on Avondale Road.

Viewpoint L8 - Capel Newydd Avenue and Coed Road Junction

Situated on the opposite side of the valley to the site, this location has a direct open view of the site when standing on the pavement outside of the houses. Views of the site from within the houses located on Coed Road will be limited as the houses do not overlook the site.

Viewpoint L9 - Griffin Avenue

The six houses located on Griffin Avenue have open direct views of the site.

Viewpoint L10 - Greenfield Place

Houses lying on this road on the opposite side of the valley to the site are south east facing. Therefore limited views of the site from this location are

available. From outside the houses, when looking towards the site direct views of some areas of the site are available.

Viewpoint L11 - Eastern area of Capel Newydd Avenue

A grass area to the south of this avenue allows a partially screened view of the site in winter.

Viewpoint L12 - Glade Bungalow on Cwmavon Road

This bungalow is located at a lower level to Cwmavon Road. Trees partially screen the site from the property.

Viewpoint L13 - James Street

Views of the site from this street are partially screened by houses and trees.

Viewpoint L14 - Llanover Road Allotments, Lyngene and Llanover Villa on Llanover Road

The houses and allotments on this road have an open, direct view of the southern area of the site. However, the northern area of the site is screened from view by the houses located to the south of Llanover Road.

Viewpoint L15 - Coed Road and Llanover Road Junction

Drivers and pedestrians on Coed Road have an open, direct view of the centre of the site. The other areas of the site are completely screened from view.

Viewpoint L16 - Coed Road and Capel Newydd Avenue Junction

Drivers and pedestrians using this road have an open, direct view of the southern area of the site. Trees located within the site boundary partially screen the view of the central area of the site.

Viewpoint L17 - Western area of Capel Newydd Avenue

The view of the site from this location is screened by trees and houses located to the north of the road.

Viewpoint L18 - Coed Llwyd Close

Trees surrounding the western area of the rugby pitch screen the view of the site at this location.

Viewpoint L19 - Giles Road

Open, direct views of the southern area of the site are available at this location. The north section of the site is screened from view by buildings and trees located further down the side of the valley.

Viewpoint L20 - Elgan Avenue House numbers 87 - 100

A long distance, partially screened view of the site can be seen from this location. Only the southern area of the site can be seen.

Viewpoint L21 - Rifle Street

A long distance, screened view of the site can be seen at this location. Only a small area of the southern section of the site can be seen.

Viewpoint L22 - Elgan Avenue House numbers 131 - 144

The long distance view of the site from this location is partially screened by houses and trees.

2.12 Public Rights of Way

There are no public rights of way affecting the site. However, the National Cycle Route No 46 runs adjacent to the site. The location of this cycle route is shown on Drawing number ES1534.ES.07 in Appendix A.

Several public footpaths are located on the opposite side of the valley to the site. There will be unobstructed views of the site from these locations.

2.13 Assessment of the Significance of the Impact of Development on Historic Landscape Areas

An Assessment of the Significance of the Impact of Development on Historic Landscape Areas on the Register of Landscapes of Historic Interest in Wales (ASIDOHL) has been undertaken by Cambria Archaeology. This assessment is required in association with the landscape assessment as the development is located within a World Heritage Site and within a landscape of historic interest in Wales (No. 16 on the Register Significance of the Impact of Development on Historic Landscape Areas on the Register of Landscapes of Historic Interest in Wales).

Aerial Photographs

Historical aerial photographs of the site that were obtained from the Royal Commission of Ancient Monuments were assessed as part of the ASIDOHL. These aerial photographs can be seen in Appendix E.

The site has historically been used for agricultural purposes therefore few changes in the use of the site can be seen on the aerial photographs.

On the aerial photograph taken in 1953 no evidence of agricultural disturbance in the field located in the south of the site can be seen. By 1955 the field shows some surface disturbance possibly as a result of agricultural ploughing.

In 1951 the quarry located in the eastern area of New Road Farm is visible and a hedge runs around the quarry's edge. The depth of the quarry at that time is not indicated. By 1955 large sections in the southern area of the site show major industrial ground disturbance as a result of extensive mining and quarrying. No visible sign of the second quarry can be seen on the 1962 photograph.
In 1991 potential in-filled ditches can be seen running north to south through the site.

2.14 Ecology

To assess the current ecological status of the site a flora and habitat survey together with several protected species surveys were undertaken during July 2004 and between February to May 2005. The protected species surveyed were: -

- Otters
- Badgers
- Water voles
- Great crested newts
- White clawed crayfish
- Bats
- Barn owls

2.14.1 Ecologically Designated Areas

No sites of ecological designation lie within the boundary of the proposed development. The development site is located 2km from the Brecon Beacons National Park.

2.14.2 Floral Survey

A site walkover was undertaken to ascertain the botanical interest of the site and to compile a species list.

A full flora species list may be seen in Appendix C.

The site is currently used as pasture for sheep and cattle and comprises a short sward dominated by Sheep's fescue (*Festuca ovina*). A small section of rough grassland between the site boundary and the Afon Llwyd is inaccessible to livestock and offers a more diverse assemblage of plant species. Some scrub has developed within this area. The flora survey was limited to within the site boundary.

From observations made during the site walkover it may be concluded that the grassland has been left as unimproved grassland for at least ten years. Grass species observed at the site included Green bristle grass (*Setaria vividis*), Annual meadow grass (*Poa annua*), False oat grass (*Arrhenatherum elatius*), Crested dog's tail (*Cynosurus cristatus*), Timothy (*Phleum pratense*), Perennial ryegrass (*Lolium perenne*), Velvet bent (*Agrostis canina*), Cocksfoot (*Dactylis glomerata*) and Yorkshire fog (*Holcus lanatus*).

Floral species observed at the site included Creeping buttercup (*Ranunculus repens*), Meadow buttercup (*Ranunculus acris*), Bulbous buttercup (*Ranunculous bulbosus*), Lesser celandine (*Ranunculus ficaria*), Shepherd's cress (*Capsella bursa-pastoris*), Common chickweed (*Stellaria media*), Common mouse ear (*Cerastium holosteoides*), Red clover (*Trifolium pratense*), White clover (*Trifolium repens*), Lesser trefoil (*Trifolium dubium*), Common vetch (*Vicia sativa*), Black medick (*Medicago lupulina*), Creeping cinquefoil (*Potentilla reptans*), Common bird's foot trefoil (*Lotus corniculatus*), Foxglove (*Digitalis pupurea*), Broad leaved dock (*Rumex obtusifolius*), Redshank (*Polygonum persicaria*), Knotgrass (*Polygonum aviculare*), Thyme leaved speedwell (*Veronica serpyllifolia*), Selfheal (*Prunella vulgaris*), Cleavers (*Galium aparine*), Pineapple weed (*Matricaria matricarioides*) and Creeping thistle (*Cirsium arvense*). The species composition of the pastureland is largely uniform. Slight variations in the composition and relative abundance of species may be seen between areas where the frequency of grazing differs.

Stands of Bracken (*Pteridium aquilinum*) were observed at the site. These were largely associated with the numerous dry stone walls present around the site. For example large stands of Bracken were observed running along the eastern site boundary. Associated plants included Dog's mercury (*Mercurialis perennis*) with a dominant tree canopy of Hazel and Pedunculate oak. Large stands of bracken were again observed along the dry stone walls present in the centre of the site. In many instances these were associated with Nettles (*Urtica dioicia*). During the site walkover in February 2005 primroses were found on the central dry stone walls in place of the Bracken.

No species listed on the IUCN Red List, Lists of nationally rare and scarce vascular plants, species protected under the Wildlife and Countryside Act 1981, UK and Biodiversity Action Plan (BAP) species or species listed by the Welsh Assembly Government (as a requirement of Section 74(2) of the Countryside and Rights of Way Act 2000) were observed at the site.

2.14.3 Bryophytes

The dry stone walls within the site were surveyed for the presence of bryophytes. Lichen species present on the stones particularly those on the eastern boundary wall were *Physica adscendens* and Crottle (*Parmelia saxatilis*) together with the moss *Homalothecium sericeum*.

2.14.4 Hedgerows

No hedgerows were found within the fenced site boundary. A hedgerow to the north of the site which lies outside of the site boundary fence was homogenous in species composition and lacked an understorey. Felling of this hedge is not required to create the northern access road into the site.

2.14.5 Arboreal survey

An arboreal survey recorded tree species including Hawthorn (*Crategus monogyna*), Blackthorn (*Prunus spinosa*), Hazel (*Corylus avellana*), Silver birch (*Betula pendula*), Ash (*Fraxinus excelsior*), Pedunculate oak (*Quercus robur*), Elder (*Sambucus nigra*), Beech (*Fagus sylvatica*), Rowan (*Sorbus ancuparia*) and Sycamore (*Acer pseudoplantanus*). Many of the tree species present were mature or close to maturity with a girth over 2m. These were located on the boundary. The location and status of these trees can be seen in Drawing ES1534.ES.08 in Appendix A. Trees shaded in red on this drawing are to be felled as they are dying or are in a dangerous condition.

2.14.6 Nesting birds

One tree within the site boundary is used by nesting birds. The location of this tree can be seen in Drawing ES1534.ES.09 in Appendix A. This tree is in an average condition within minor defects which can be remedied. This tree will not be felled as part of the development.

All birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981 and it is an offence with certain exemptions to damage or destroy a nest of any wild bird while it is in use or being built. Therefore if felling of this tree is required as a result of unforeseen circumstances the presence of nests will be a constraint and felling should be undertaken between August and February, outside of the bird nesting season.

2.14.7 Bat survey

Bats choose various places throughout the year to hang up or roost. Different types of bat have their own particular preferences. Some prefer hollow trees, others caves, whilst some use both at different times. Many shelter in buildings behind hanging tiles and boarding, or in roof spaces. For several weeks in summer female bats gather together in a maternity roost (summer roost); young are born in June or July where they are cared for and suckled by their mothers both day and night. British bats hibernate; they find a cool place free from disturbance (winter roost).

The majority of British bat species are believed to be in decline and therefore are classed as protected species. All bats are included on Schedule 5 of the Wildlife and Countryside Act 1981: this act gives complete legal protection to all bats and their known roosts. Bats are also protected under Appendix II of the Council of Europe Bern Convention, Wildlife and Countryside Act 1981, the Agreement on the Conservation of Populations of European Bats under the

Bonn Convention, the EC Habitats Directive, the Conservation (Natural Habitats, &c.) Regulations 1997 and the 1994 Habitats Regulations.

Three potential bat habitats were identified at the site. These habitats were: -

- Trees
- Drain Culvert
- Barn

To comply with the legislation outlined above the three habitats were surveyed for the presence of bat roosts. The full report of the bat survey undertaken can be seen in Appendix D. However, the results of the surveys are summarised below: -

2.14.7.1 Trees

Numerous large mature trees within the site may provide suitable refuge for bats. Ivy-covered trees were present in the north west corner of the site in an elevated location to the north of the ravine. These trees may offer a suitable refuge for bats. Development of the north western area of the site is not included in the proposal due to the presence of the ravine and unsuitable topography. Therefore, the trees within this area of the site will not be felled unless they are classed as dangerous as indicated on Drawing ES1534.ES.08 in Appendix A.

Buildings are the most favoured roost sites of some bats, for example the Pipistrelle (*Pipistrellus pipistrellus*). As the site faces a large residential area is highly likely that such species may be using the site as a foraging area. Bats follow linear features of the landscape as flight paths or feeding corridors. The dry stone walls may provide such linear features.

Horseshoe bats are prevalent in the Blaenavon area. However, they would require hedgerows for flight paths and roosting. Due to the lack of hedgerow within the site there is a low probability that Horseshoe bats would be found at the site.

During the survey all mature trees within the site boundary were assessed for their potential bat use. This survey was undertaken using a high powered lamp to investigate holes and cavities. As the survey took place during the winter the use of a bat detector was not considered appropriate.

The mature trees as marked in Drawing ES1534.ES.09 in Appendix A are potential bat roosts and should be kept and integrated into the design of the development. These trees will also aid with the visual impact screening of the site. The main species of interest include Oak, Ash and Beech as well as Silver birch and Hawthorn.

The trees hatched in red in Drawing ES1534.ES.08 in Appendix A are classed as dangerous, dead or dying. The rotten areas within these trees are ideal as

bat refugia. However, identification signs of bats were not found within the trees.

It is recommended that any felling of dangerous, dead or dying trees be done under the supervision of a licenced bat worker. Prior to felling the trees should be inspected for bats. Any timber cut should be left for at least 24 hours to allow bats the opportunity to escape. Work should not be carried out between June and August to avoid disturbing any potential nursery roosts. If felling were to take place during hibernation (November to March) the bats will be torpid, difficult to see and the whole roost may be lost as they will be unable to escape. It should be noted that the period of tree felling should avoid the period where nursery bat roosts may be present but also avoid the bird roosting period as outlined in Section 2.14.6.

2.14.7.2 Drain Culvert

The drain culvert within the ravine to the west is of particular roosting interest to bats such as Daubenton's bats. This area will not be developed and therefore further survey of the drain culvert was not considered necessary.

2.14.7.3 Barn Conversion

This building offers low potential use by bats. However, an area ideal for bats can be found between the wood and stone lintels over the window slit in the north wall.

If bats are found to be roosting in the barn later in the season a Licence to Disturb Bat Roosts will be required from the National Assembly for Wales under the Conservation Regulations.

The Conservation Regulations uses three tests to assess when a licence is granted: -

1. There must be an Overriding Public Interest for the development, e.g. Health & safety, commercial or social or cultural need, animal welfare/ food/timber production etc.

2. No reasonable alternative - if there is you should do the reasonable alternative instead (i.e. something that may be a bit more expensive but would be a better solution).

3. Not detrimentally affect the Favourable Conservation Status of the Species – this is prevented through a good method statement including mitigation where appropriate.

No bats have been found in the barn to be converted. However, the lintel areas as mentioned above must be demolished in a careful manner. If possible the area should be demolished by hand and not mechanically destroyed.

2.14.8 Barn Owls

A survey to determine the presence of Barn owls was undertaken at the same time as the bat survey.

No signs to indicate the presence of Barn owls were found within the barn.

2.14.9 Wasp nest

A large wasp nest was observed in the base of a mature Ash tree, which was located in the vicinity of the northern tip of the central dry stone wall. The location of this tree can be seen in Drawing ES1534.ES.09 in Appendix A. Although it is not illegal to destroy a wasp nest; care should be taken if any work is to be carried out near the tree. Issues raised with regards bird nests and bat roosts should be observed where applicable if measures are taken to destroy the wasp nest.

2.14.10 Reptile survey

Snakes and lizards require warmth from the sun to raise their body temperature to become active and search for food together with a suitable place to hibernate during winter. Reptiles favour dry, species rich, undisturbed, south facing, open habitat with a mix of sparse and dense vegetation. Several areas in the site provide suitable reptile habitat. Such examples of these are the numerous dry stone walls within and around the site and also the gully located in the north west corner of the site on an east facing slope.

A reptile survey was undertaken to find basking reptiles. Reptiles have an affinity for hiding under debris exposed or partially exposed to the sun. Where possible such debris was overturned in the hope of exposing a reptile species.

No reptiles were recorded during this survey. However, if reptiles are found at the site during the development works, it is advisable to contact the Countryside Council for Wales and the Herpetofauna Groups of Britain and Ireland to discuss the best course of mitigation action to enable the scheme to proceed whilst being as sympathetic as possible to any reptile species found on the site.

2.14.11 Mammal survey

The site is heavily grazed and therefore of reduced value to mammals.

2.14.11.1 Otters

An otter survey was undertaken to determine the presence of the species within the site boundary.

A tributary of the Afon Lwyd cuts through the north west of the site. This tributary would be used as a pathway to other areas rather than as a feeding

location. A potential otter holt was identified within a large Beech within this tributary. This ravine will not be included in the development.

No otter identification marks were found within the area of the site to be developed. No actual otter resting places were found within the site.

The rough area of grassland and scrub to the north of the site has the potential to be used as an otter resting area. However, the close proximity of the adjacent housing may reduce its value to otters.

2.14.11.2 Badgers

A badger survey was undertaken to determine the presence of the species on site. No identification marks by the species were found within the site boundary. Land adjacent to the site did not show signs of use by the species and no indicators to show the presence of a sett were identified.

2.14.11.3 Water Voles

All water bodies within the development area were deemed unsuitable for water voles as they were shallow and fast flowing.

The river corridor of the Afon Llwyd has been subject to alteration and canalisation and therefore the river bank habitat is unsuitable for water vole. The ravine to the north west of the site is also unsuitable for water vole.

The water system to the east of the site is unsuitable for water voles.

The grassland and scrub area to the north of the site boundary is unsuitable for water voles.

2.14.11.4 Dormice

The suitability of the site for dormice was assessed and was deemed unsuitable. All linear features within the site boundary were formed by dry stone walls and therefore unsuitable for the species.

2.14.12 Amphibians

2.14.12.1 Great Crested Newts

A Great crested newt survey was undertaken to determine the presence of the species within the site boundary. Great crested newts have been recorded in ponds approximately 2km from the site therefore it is possible that the species may be present.

No ponds or suitable water courses for use by breeding Great crested newts exist at the site. The boulders and debris located within the dry water bodies within the site offer potential amphibian refugia. However, no individuals of the species were recorded at the time of survey.

The grassland and scrub area to the north of the site boundary has the potential to be a refuge site for amphibious species including Great crested newts.

No Great crested newts have been recorded at the site. However, potentially suitable refugia for the species have been recorded within the site boundary.

2.14.13 White-clawed Crayfish

No water bodies or dry water bodies within the site boundary were suitable habitat for White-clawed crayfish. However, the exposed root system in the banks of the tributary in the north west of the site may provide potential crayfish refuge.

No white clawed crayfish were present during the survey carried out within the site boundary and within the Afon Lwyd.

The full report detailing the Otter, Water vole, Great crested newt and White-clawed crayfish surveys can be seen in Appendix D.

2.14.14 Summary of Ecological Constraints

The ecological aspects arising at the site which restrict the development are summarised in table 3 below: -

Table 3 Summary of Ecological Constraints

Species	Ecological Constraint
Bats	Potential bat roost within unsafe or decaying trees due to be felled.
Otters	Location of a potential holt within the ravine.
White clawed crayfish	Potential refuge for young crayfish within the ravine.

2.15 Human Beings/Socio-Economic

The socio-economic difficulties experienced by Blaenavon have been well reported in a number of documents, in particular the "Blaenavon: Heritage and Regeneration Study" by DTZ Pieda Consulting (September 1998) and the Torfaen Local Plan (adopted July 2000). The Local Plan (Table 1, page 2) identifies that Blaenavon experienced a 38% fall in population between 1955 and 1991, while the DTZ study highlights (paragraph 3.34) that using a range of socio-economic indicators, Blaenavon has been classified as one of the most deprived wards in Wales.

Both documents, however, predate collection and publication of the more recent data provided by the 2001 Census. Nevertheless, the basic trends appear to have continued with the 2001 data showing a further fall in population of 5% since 1991, and 41% since 1951. The data also indicates that there has

been no apparent structural change in population, with the disparities identified by the DTZ report still being evident.

The difficulty for the casual observer is that such trends are not what can be seen represented on the ground or gleaned from the media. From the media the town's World Heritage Site status and the award of the 2005 Gulbenkian Prize for museums and galleries to Big Pit are well recognised, whilst on the ground, the results of over £25 million of investment in the last 7 years can be seen. As a result numerous commercial properties in the town centre have been refurbished, while approximately 900 residential properties will eventually benefit from the ongoing Housing Renewal Grant scheme.

It would seem that the designation of the World Heritage Site has changed the perception of Blaenavon, while the significant financial investment by governmental agencies is renewing the fabric of the town, thereby bringing about a visual improvement as well as underpinning the perceptual change. However, unless such changes alone reverse the population trends, thereby creating greater wealth and spending power in the locality, it is doubtful that such successes will be sustainable in the longer term.

Doubt about such intervention alone being sufficient is cast by the Local Plan, which specifically identifies (paragraph 3.1.4) low levels of house building activity and a lack of choice in terms of type and quality of housing stock as typifying and exacerbating the wider social and economic problems which exist in the area. Chapter 3 of the Local Plan goes on to expand on the problem and explain why significant housing land releases have been allocated in the north of the County. From Policy S1 of the document, it will be seen that this site is the largest of the purely housing land allocations in the County.

2.16 Archaeology and Cultural Heritage

New Road Farm is located within an ICOMOS World Heritage Site and a Landscape of Historic Interest in Wales which recognises its archaeological and historic significance. Due to these designations an Assessment of the Significance of the Impact of Development on Historic Landscape Areas on the Register of Landscapes of Historic Interest in Wales (ASIDHOL) is required to be undertaken to determine the significance of the development. The results of this ASIDOHL are discussed in Section 4.15.

There are no known sites, or sites with the potential to contain archaeological deposits of significance to environmental archaeological studies within the site boundary.

No known Palaeolithic sites lie within the Blaenavon area and no known Roman or Medieval period sites are located at the site.

Several indicators to show the period in which the farm originates are discussed below.

Documentary evidence dates the existing location of the New Road Farm buildings from 1793. However, Glamorgan Gwent Archaeological Trust hold records of New Road Farm dating back to 1497 and the farm is shown on all series plans with new buildings being added up to the 1962 series.

The pitch of the farmhouse and barn roofs suggests they were originally thatched therefore dating the farmhouse from 18th century origin or earlier and the barn from the 19th century.

A review of historical plans has been carried out. These are contained in Appendix N.

Within the field boundaries none of the plans show any significant development as the area has been used for agricultural purposes until the present day. However, in the eastern corner of the site, the 1882, 1901 and 1920 series plans indicate some buildings labelled "Cockroad Row" in 1882, and as "Greenway Houses" in 1901. The buildings are present without a label in the 1920 series and absent in the 1962 series.

Two stone quarries are located within the site. The largest quarry is shown in all plans to the east of New Road Farm and labelled "Old Quarry" in the 1882, 1901 and 1920 series and without a label in the 1962 series. It is assumed that this quarry ceased production some years prior to 1882. The quarry has subsequently been filled and is now no longer a feature on the landscape. A second smaller quarry situated in the centre of the site is shown in the 1962 series. This smaller quarry has also been backfilled. The location of both quarries can be seen on Drawing ES1534.ES.04 in Appendix A.

Immediately to the south of the Old Quarry, the presence of a well is indicated on the 1882, 1901 and 1920 series plans, but is absent from the 1962 series.

Field boundaries at the site are primarily collapsed drystone walls, with overgrown trees possibly derived from relict hedging. Existing dry stone wall field boundaries are indicated on a map of 1793.

Two potential locations of post medieval buildings that pre-date the existing buildings of New Road Farm were identified at the site. Both sites H and G can be seen in Drawing ES1534.ES10 in Appendix A. These potential deserted settlements were investigated through archaeological trial trenching. This investigation confirmed that both locations were a result of field clearance/lynchet.

Site H was originally considered to be a possible settlement site. The archaeological evaluation investigation confirmed that the terraces and platforms in this location were the result of past agricultural practices. Site G was originally considered to be a possible settlements site. As a result of the archaeological evaluation investigation the terraces and platforms at this location were the result of past agricultural practices.

Two or three slight depressions occur in the north eastern area of the site. These may be surface traces of unrecorded mineral workings or may be natural features such as tree throws.

The location of all archaeological sites found at the site can be seen on Drawing ES1534.ES.10 in Appendix A.

2.17 Services

2.17.1 Dŵr Cymru

A foul water pipe runs north along the western boundary of the site. Surface water from the town enters the Afon Lwyd at a location opposite to the site. The location of this service can be seen in Appendix O.

2.17.2 NTL

There are no services by the above provider in the vicinity of the site.

2.17.3 British Pipeline Agency Limited

BPA do not operate or manage any pipelines within the site area.

2.17.4 National Grid Transco

A low pressure mains gas pipe runs along the western boundary of the site. If work is to be undertaken in the vicinity of Transco equipment then in the interest of safety a meeting will be arranged before the commencement of work on site between Transco representatives, representatives of the promoting authority the contractors and any other interested parties. This will be carried out well in advance of the work. Access to Transco plant and facilities will not be affected. Where formal consent is given a minimum of seven days notice will be given before carrying out work in Transco easements.

The location of this service can be seen in Appendix O.

2.17.5 Western Power Distribution

An overhead 66/132kV power line crosses the site from south east to north west. All work within the site will comply with the Western Power Distribution requirements of Health and Safety Executive guidance laid down in GS6, Avoidance of Danger from Overhead Electric Cables.

The location of this service can be seen in Appendix O.

2.17.6 BT

A BT phone line runs north to south along the western boundary of the site.

3.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

Brickyard Homes Limited has commissioned ESHA Architects to design the proposed scheme. Their design statement may be seen in the following text box:-

ESHA

aRCHITECTS

NEW FARM ROAD, BLAENAVON

Design Statement (11th August 2005)

1.0 PRINCIPAL FACTORS AFFECTING THE SHAPE OF THE DEVELOPMENT

1.1 The site immediately borders the south-western edge of Blaenavon which is at present defined by the stream running at the bottom of the valley, and slopes up from this valley at gradients varying between about 1 in 4 and 1 in 8 consisting at present of several fields, together with the New Road Farmhouse and its ancillary buildings, it forms part of the cultivated transition between the town and the open upland moorland to the south west.

1.2 The site is connected to Blaenavon principally by the Varteg road which runs along its western boundary, but there is also a potential connection for pedestrians from the north eastern boundary. For pedestrians this connection will potentially form the shortest route to the town centre, a route made particularly direct as well as interesting by the existing bridge over the stream.

1.3 A striking feature of the site is the presence of groups of fine mature trees. The principal group is concentrated in a very steep ravine area in the north western corner, but there are also fine specimens elsewhere particularly along the lines of the field boundaries. All the trees in good condition are retained and building is kept at a sufficient distance from them to avoid causing any damage to their roots (cf. Tree Survey prepared by Treescope Limited).

The remains of stone walls along two of the internal field boundaries are also an interesting feature which will be retained in situ, whilst the stone in the third, dilapidated, internal field boundary will be re-used in new boundary wall construction.

1.4 The strong character of the existing town, declared a World Heritage site in 2000, provides an important precedent for any new development around it, even as in this case it is outside the Conservation Area.

1.5 Ideally a site of this size should have several vehicular entrances to achieve a permeable pattern and avoid making into a cul-de-sac, but

in view of the restricted sight lines related to any access point from the Varteg road above New Road Farm caused by the railway bridge, the Highways Authority will effectively allow only one access from this road at a point below the farm. The Authority's policies, limiting road gradients to no more than 1 in 10 and requiring forward visibility along the roads of at least 33 metres, also have an important restricting influence on the form of development.

1.6 The overhead lines running close to the south western boundary of the site are of a further constraint in that it is not considered consistent with Health and Safety to plan any houses immediately beneath them.

2.0 URBAN DESIGN APPROACH

2.1 The urban design approach consciously reflects the kind of urban pattern used in the centre of Blaenavon. This pattern is: -

(a) In harmony with the slopes of the hillside.
(b) Makes a clear physical distinction between the public streets and open spaces belonging to the community as a whole and the private plots belonging to individual residents.
(c) Gives the public spaces the sense of intimacy and high environmental quality appropriate to their status.
(d) Gives movement on foot priority over vehicles.
(e) Achieves a strong urban character distinct from the open countryside around it.
(f) Provides a sense of overall unity, yet with variety within that unity, thereby achieving a sense of place.

2.2 The main structure of the development consists of a primary network of streets, which together with the public open spaces associated with the existing trees to be retained, defines a pattern of blocks. So that they feel sheltered and comfortable for pedestrians, the streets are kept as narrow as possible consistent with the traffic using them and the need for casual and visitor carparking space. The edge of the common space is normally set at the back of pavement and is defined by the fronts of houses and two metre high garden walls and gates.

2.3 A typical street is lined by a mixture of terrace, semi-detached and detached houses, some two and some three- storey.

2.4 The restriction to one vehicular access point means that all the houses must be accessible from this point so necessitating one continuous road pattern. The conflict between the 1 in 10 road gradient permitted and the much steeper site is resolved by a snaking road pattern which

keeps to the natural ground level where it is close to the existing trees to avoid damaging them, but is built up at the western and eastern edges of the site to link the four main streets which are orientated parallel with the contours.

2.5 The precise locations of the main streets is determined by the gaps in the lines of existing trees where they can penetrate. These locations mean that the widths of blocks vary. Within the wider blocks it has been possible to incorporate back lanes. Whereas the streets are bordered by pavements, the lanes are shared surfaces which are narrower than the streets to slow the traffic, thus creating an informal 'homezone' atmosphere. The rear vehicle access to plots they provide means that allocated car parking can be kept off the streets even where groups of terraced houses prevent vehicle access to plots direct from the front. It is not proposed that the lanes be adopted as public highway.

2.6 Generally all garages and parking spaces are located within the private plots, accessed either direct from the back lanes or via gates in the walls facing onto the streets. However, in places, particularly where steep natural gradients make other arrangements difficult, parking under trees is incorporated on the street side of terraced houses.

2.7 There is a line of existing trees at right angles to the contours roughly in the middle of the site. This line is exploited to form a major linear open space linking all the streets together and creating a stepped pedestrian route from the top to the bottom of the site and thence across the stream and into the town centre. This strong vertical feature running from top to bottom of the site reflects the character of the road pattern found in the older parts of Blaenavon. The streets are also linked together by other stepped pedestrian routes at intervals across the site.

2.8 The urban environment is softened not only by the existing trees and open space associated with them, but also by new tree planting, partly to replace existing trees in poor condition and partly in private plots, especially where they can provide privacy between gardens or overhang garden walls fronting the streets. In addition there are narrow beds for climbers and small shrubs between house façades and the back of pavements.

3.0 DEALING WITH THE SLOPE OF THE SITE

3.1 The slope of the site is such that it has been necessary to terrace it to create sufficiently level plateaux for the streets, buildings and

gardens, and to support them with retaining walls.

3.2 In order to resolve the sharp level changes which are inevitable across the depth of plots the lowest floors of many of the houses are dug into the slope. In other cases, where the slope is not quite so steep, split level arrangements are used. In some particularly steep locations the access from house to garden is via a balcony and steps.

3.3 As the streets and the pavements framing them are never steeper than 1 in 10, disabled access to houses can always be achieved.

3.4 As the streets are generally roughly parallel with the natural contours the pedestrian links between them are unavoidably steep, and so flights of steps with frequent landings have been introduced along them.

4.0 ARCHITECTURAL CHARACTER

4.1 In order to give the new development a strong sense of belonging to Blaenavon, the design of the new buildings is closely based on the local vernacular as found in the town centre, adapted where necessary in the light of modern improvements such as double glazing and central heating. So the specification of building elements and materials accords with the following guidelines: -

- Walling

  Mainly render, but with a substantial element of local rubble stone and a sprinkling of red brick. Selective use of plinths, window cills and surrounds, quoins, string courses and cornices in stone, brick or render. Window surrounds are particularly characteristic of the locality.

- Roofs

  Pitch fairly low, usually 30%. Normally gabled but occasionally hipped. Slate or a good imitation.

- Chimneys

  One for most houses, two for formal houses. Substantial in scale and of red brick or rubble stone.

- Windows

  Vertically sliding sash or side-hung casement. Strictly

symmetrical about the vertical axis (so fixed lights designed as opening lights). Painted wood or slim plastic frames. Divided into at least four panes. Cills usually 50 – 80 cm above floor level. There is a preference for sliding sash on street elevations. A sprinkling of bay windows, dormers and oriels is incorporated.

- Front Doors

  Four or six panelled or vertically boarded timber, painted.

- Eaves

  Overhang the walls below to some extent but substantial overhangs and bargeboards are not common locally and are avoided. Cornices on some houses.

- Rainwater Pipes and Gutters

  Metal or plastic in black or white. Round downpipes and half round or ogee gutter sections.

- Interfaces Between Public Spaces and Private Plots

  Defined either by house walls or rubble stone, render or red brick garden walls, or vertically boarded timber gates framed by capped masonry piers.

- Paving in streets, Squares and Lanes

  Tarmac with various finishes and/or paving to be agreed with the Planning and Highways authorities.

- Kerbs

  Natural local stone or a good quality substitute.

- Streetlights

  To be selected to harmonise with the architecture, hung from buildings where possible.

- Street Names

  Mounted on buildings or walls.

Generally the forms of the buildings are simple rectangles with gabled roofs. However there is considerable variety in detail within a unified overall pattern; and occasionally there is a particularly decorative doorway, gable window or cornice detail characteristic of the vernacular. Such special details are used at key points in the urban structure.

5.0 PROPOSED UNITS BY TYPE

5 bed – 7
4 bed – 66
3 bed – 27
2 bed – 11
workshop/office over garage – 5

TOTAL NO. UNITS – 116

In addition, there is also the existing farmhouse which will remain, as well as the existing barn which is to be converted into a dwelling.

3.1 Services/Utilities

It is anticipated that all domestic services will be required at the site. These are: -

- Gas
- Water
- Telecommunications
- Electricity

These services currently exist close to the site and therefore will be able to service the development.

An overhead Western Power Distribution line crosses the site from the south east to the north west. All work within the site must comply with the requirements of Health and Safety Executive Guidance laid down in GS6, Avoidance of Danger from Overhead Electric Cables.

3.2 Sewerage and Surface Water Drainage

During the construction period, water will be supplied by the mains connection to the site. Water may be discharged from the following sources: -

- Contaminated construction site drainage

- Discharge of construction workforce sewage and washing effluent
- Discharge of contaminated water from vehicle wheel washing facilities

Surface water quality may be affected by the discharge of construction site drainage. Construction activities are also likely to cause high levels of suspended solids in any surface water flowing off the site. The removal of the vegetation cover from the site will increase the potential of surface water run off from the site.

The presence of settling lagoons, excavations and other topographical depressions caused by earth moving may cause ponding and the accumulation of potentially contaminated water.

On all construction sites there is the potential for water pollution arising from the storage of fuel and hazardous substances that area used in the construction process.

3.3 Safety Statement for Construction

All work will be subject to S.I No. 44 of 1993 Safety. Health and Welfare at Work (General Application) Regulations 1993 (amended by S.I No. 188 of 2001), and S.I No 481 of 2001 Safety, Health and Welfare at Work (Construction) Regulations 2001 and all current legislation. A detailed safety statement will be prepared at the contract document stage and finalised on commencement of construction.

3.4 Construction Management Plan

A Construction Management plan will be drawn up prior to the commencement of construction activities in order to minimise the impacts to the environment during construction. The Construction Management Plan will detail the allowable working day, construction traffic, parking arrangements and incorporating environmental protection measure and will be included as part of the contract for any part of these works. Provisions to reduce the environmental impact of the construction impact of the construction activities will include the following: -

- Requiring contractors to comply at a minimum with the provisions of BS 5228 (Noise Control on Construction and Demolition Sites), Part I & Part 2, 1997.
- Where necessary, require contractors to erect suitable noise barriers to minimise disturbance and avoid nuisance when operating machines at night (between 2000 hours and 0800 hours).
- Limiting vibration caused by construction plant to the maximum permitted values in BS6472, 1992 (Guide to evaluation of human exposure to vibration in buildings (1 Hz to 80 Hz).
- Requiring contractors to take reasonable precautions to ensure that all wastewater discharged shall not be harmful to or cause obstruction or deposit in drains and to prevent oil, grease or other objectionable matter being discharged into drains.

- Requiring contractors, during the execution of works, to keep all plant and materials and all equipment connected with the construction of the works in good order and clean and tidy.
- Requiring contractors to remove any waste materials from the site to a licensed waste facility.
- Requiring contractors to ensure that the public roads in the vicinity of the site are maintained free from all mud, dirt and rubbish, which may arise from or by reason of the execution of the works. To facilitate this, the Contractor could be required to provide a wheel washing facility to an approved standard within the construction site.
- Prohibiting the disposal of excess concrete on any part of the construction site.
- Requiring the contractors to keep the designated parking area and other common areas clear and free of rubbish and debris.
- Requiring contractors to be responsible for the disposal of all wood, food, food packaging and paper generated during the construction phase and requiring them to furnish containers and vehicles to collect and haul these items and dispose of them to a licensed waste facility. Dumping of these items within the construction site will be prohibited.
- Requiring scrap materials, rubbish, etc. to be hauled out of the work areas (daily) and disposed of by the Contractor on a daily basis to a licensed waste disposal facility.
- Requiring the contractor to obtain any necessary permits from the Local Authority or Environmental Protection Agency for the disposal of waste.
- At the completion of the work, require contractors to leave the construction area in a neat, clean and orderly condition.
- Requiring individual contractors to provide sanitary facilities that will be adequate for their construction personnel. Sanitary facilities will include proper wash down WC's with sewer connections, or if this is impractical, chemical closets.
- Requiring that all temporary buildings associated with construction of the development comply with the Safety, Health and Welfare Regulations. On completion of the works, contractors will remove them entirely with all slab, drains and water mains and restore the surface of the land to its original conditions or other reasonable conditions.

In addition, any excavated material generated during the construction of the facility will be reused on site, where appropriate. Parking facilities for construction vehicles and private transportation will be located within the development site. Temporary site fencing will be erected and maintained to secure the site during the construction phase.

3.5 Landscape and Visual Impact

All dead or moribund trees will be felled for health and safety reasons. All safe and healthy trees depicting field boundaries have been integrated in to the design of the scheme where possible.

Two of the three internal dry stone walls and their associated trees will be retained and reinforced by rebuilding and replacement tree planting. The stone from the third internal field boundary, which is partially collapsed and is in a poor state of repair, will be reused to rebuild the other field boundaries as well as contributing to new stone walls on the site.

3.6 Ecology

The ecology of the overall site has been described in Section 2.14 of the ES.

All healthy trees along the ravine will be kept to ensure the stability of the ravine and aid visual screening of the site from the north west. Any moribund or unsafe trees in this area will be felled for health and safety reasons. These trees will be checked by a licenced bat worker to confirm the presence of bats prior to felling.

3.7 Human Beings

The development will create new housing for the locality. It will also create construction phase employment opportunities for civil works, electrical, plastering, roofing etc.

Preference will be given to local firms based on price and quality.

It is proposed to utilise Varteg Road to access the development. No public roads will be severed by the proposed development nor will any pedestrian routes. There will be no disruption to the social travel patterns of those residing adjacent to the development site.

3.8 Environmental Controls

The following table outlines the proposed environmental controls that will be implemented to control, reduce and prevent pollution and nuisances from the construction and use of the development.

Table 4 Environmental Control Measures

Unit Process Description	Pollution Control System
Domestic effluent	All domestic effluent will collected by the foul water drains.
Surface water run off	All surface water run off will be collected by soakaways.
Building water run off	All clean rainwater will be collected by soakaways.

4.0 POTENTIAL IMPACTS AND PROPOSED MITIGATION MEASURES

4.1 Land Use

The development of housing at the site will change the land use of the existing site. The development will therefore have a significant impact upon the land use of the site.

4.2 Traffic

Pre-application discussions have taken place with officers of the Highway Authority and no particular traffic issues have been raised. The main vehicular access will be from a new junction on Varteg Road just below the existing farmhouse. Visibility splays of 4.5m x 90m will be provided.

The development will also incorporate a pedestrian access at the bottom of the site that will double as an emergency vehicular access. The potential for a bus stop on Varteg Road towards the top of the site has also been identified, though its provision will be dependent on the agreement of the bus service providers. By allowing pedestrians to walk down through the site towards the town centre, and then return by bus to the top of the site, it should encourage pedestrian trips to the town centre.

Within the site the access roads will be constructed to an adoptable standard, though it is intended that the rear lanes which service many of the garages will not be adopted. In order to maintain these rear access lanes future residents will be required to enter into a management agreement.

4.3 Topography

The general topography of the site will not change with the development and therefore no impact will occur as a result of the development.

4.4 Geology (Soils)

4.4.1 Development - Construction phase

A minimal removal of soil / subsoil from the site during construction is proposed. Therefore, it is unlikely that the bedrock will be exposed.

Due to the mapped thicknesses of subsoil, it is considered that most of the excavations required during the construction phase of the facility will not encounter substantial areas of underlying bedrock.

If bedrock is exposed during the construction of the site it is unlikely that, apart from normal weathering processes, any chemical or physical changes will occur to the rock mass creating any potential impacts.
Prior to construction of the site, it is proposed that topsoil will be stripped from the site. The foundations of the proposed houses will be cut into the subsoil. The construction of services, sewers, water mains etc. will also involve stripping topsoil and subsoil along the service routes.

It is predicted that topsoil will be stripped, stored and replaced in the construction of the proposed development. The short term effect will have a slightly moderate direct impact because of the disturbance to the landscape and soil conditions. Mitigation measures will be in place to minimise these impacts.

The spoil heaps of topsoil and subsoil will be temporarily stored within the site boundary during the time of construction.

4.4.2 Development - Construction Phase- Worst Case Scenario

During construction of the proposed housing development a worst case scenario may involve excavations that encounter bedrock where the subsoil is shallowest and spillages occurring from service vehicles transporting oils, fuel or lubricant for machinery working on the site, particularly if the spillages occurred directly over exposed bedrock or subsoil. These spilt substances could contaminate the soil and subsoil and could subsequently travel through the bedrock to the water table.

4.4.3 Mitigating adverse impacts on Bedrock Geology

Based on available information on the depth to bedrock across the site, it is not expected that the bedrock will be encountered during the proposed construction of the houses over most of the site. As construction of the houses requires minimal excavations (for foundations) it is considered that bedrock will not be encountered during the majority of the construction phase.

If bedrock is encountered in any of the excavations and bedrock is exposed these areas will be appropriately restored and lined with concrete. This will protect the bedrock structure and prevent any structural or weathering difficulties. If the bedrock is encountered in other locations on the site and remains exposed, it is not thought that the normal weathering of the rock will have a significant impact on the surrounding environment.

4.4.4 Mitigating adverse impacts on Soils and Subsoils

Topsoils, which may be excavated prior to the construction of any foundations for the houses on the site, can be stored for re-use, particularly in the context of any landscaping and building up of soil mounds to screen the site, particularly along the northern boundary. Topsoil should be stored in stockpiles not exceeding 2m in height and should be moved at intervals to keep it aerated.

By minimising the extent of the excavations at any one time during construction of the houses, the disturbance of the topsoils can be compartmentalised and the overall impact on the site will be kept to a minimum.

4.5 Coal Mining

The site is not located in an area likely to be affected by the coal working occurred in the past, present or future.

No impacts with regards coal mining are predicated to occur as a result of the development.

4.6 Site Investigation

From the results of the site investigation no contamination has been found within the site as a result of the location of the quarries and cemetery to the south.

4.7 Hydrogeology

4.7.1 Construction Phase

During the construction phases of the development, any foul water and grey water discharges associated with facilities for construction workers, or spillages of stored fuel oil and other chemicals, could introduce contamination to the aquifer if not controlled.

The disturbance and excavation of large areas of topsoil, prior to construction of the site could pose a risk to groundwater by providing potential pathways for contaminants to enter the subsurface and the aquifer.

The risk to groundwater would be greatest in areas where the proposed excavations could come close to the top of the bedrock. In these areas, the potential contaminants may reach the water table within the bedrock aquifer faster than in areas where there is sufficient protection afforded by the thickness of soil and subsoil.

It is considered unlikely that the construction of the houses will encounter a shallow water table and will almost certainly not encounter the bedrock aquifer. As such, the risk to the groundwater in the Highly Vulnerable Major Aquifer underlying the site, during construction, is considered low.

Provided the development is constructed in accordance with good practice the impact on the groundwater will be limited. No beneficial users of groundwater have been identified downgradient of the site.

4.7.2 Mitigation Measures

During the construction phase, any excavations will be backfilled as soon as is possible to prevent any infiltration of potentially polluting compounds to the subsurface and the aquifer.
All fuel oils and chemicals required for construction will be stored in bunded areas which have impermeable floors.

All wastewater from the construction facilities will be stored for removal off site for disposal and treatment.

4.8 Hydrology

4.8.1 Construction Phase

The construction of the development will result in the removal of topsoil.

The disturbance of the topsoil during construction may affect the surface water features which flow to the north of the site and within the northwest corner of the site, particularly if runoff from the site is not controlled.

It is considered that the construction phase may temporarily increase the likelihood of surface runoff in some areas being worked as these areas become compacted due to the activity of machinery and construction on the site. This activity may reduce the infiltration capacity of the soil in these areas, although it is unlikely that this reduction will be permanent. This decreased infiltration capacity may increase the level of surface runoff in certain areas of the site.

Runoff from such areas, subject to excavation and movement of soils and machinery, tends to contain a significant amount of suspended solids which may temporarily affect the suspended solids content of the river water.

Provided the development is constructed in accordance with good practice, which minimises the runoff to surface water features during the construction process, the impact on the surface water bodies will be limited.

Surface water quality may be affected by the discharge of construction site drainage. Construction activities are also likely to cause high levels of suspended solids in any surface water flowing off the site. The removal of the vegetation cover from the site will increase the potential of surface water run off from the site.

The presence of settling lagoons, excavations and other topographical depressions caused by earth moving can cause ponding and the accumulation of potentially contaminated water.

On all construction sites there is the potential for water pollution arising from the storage of fuel and hazardous substances that area used in the construction process.

4.8.2 Worst case scenario - Construction Phase

The 'worst case' scenario that could occur with regard to surface water during the construction of the proposed waste management facility, may for example involve a catastrophic failure of, or spillage from, vessels of fuel oil or lubricant stored on the site or from service vehicles or trucks transporting these substances onto the site.

4.8.3 Mitigation Measures

During the construction phase, run-off from the works areas will be controlled by a number of measures. An undisturbed vegetation strip will be retained along the boundaries of the site, maintaining the existing.

Any runoff possibly containing suspended solids during the construction of the site can be subjected to settlement or filtering (using a fine-woven mesh fabric in a fence or using piled bales of straw) prior to discharge to the open streams.

All potentially polluting materials (fuel, oil etc.) will be stored in bunded areas away from the open watercourses.

Provided good practice is adhered to, the risk to the surface water bodies is expected to be low.

Mitigation measures included at the site are: -

- Site drainage network
- Building run off to storage tank prior to storm waters outfall via interceptor sumps and land drains
- Interceptor sump for yard run-off prior to discharge to surface water outfall
- Shut off valves on rainwater storage tank and interceptor sump.

The impacts that have been identified in respect of the construction phase have the potential for adverse impact upon the surface water environment and receiving waters.

The following mitigation measures are recommended to alleviate surface water impacts: -

- Development of an engineered drainage system, sized to minimise ponding and limit run-off form the site at a permitted discharge rate, agreed with Welsh Water and the Environment Agency;
- Provision of an oil interceptor/silt trap from the removal of hydrocarbons and silt prior to discharge;
- Provision of washing areas for vehicles and plant with appropriate contained drainage systems prior to discharging to the main site foul drainage system;

- Construction liquids and oils will be stored in bunded enclosures on impervious hardstandings, or other suitable containment, which would have a capacity to hold 110% of the tanks (s) volumes (with all storage vessel valves and couplings within the bunded area). A pollution incident control plan will be designed to deal with potential spillages during the construction work;
- Construction activities will be carried out in accordance with guidance on good construction practice produced by the Environment Agency (PPG5 & PPG6).

4.9 Air

4.9.1 Impact of Dust during the Construction Phase

The construction works have the potential to impact on local air quality via the production of dust, created by: -

- Site clearance;
- Topsoil stripping;
- Vehicle movements on unsurfaced roads;
- Excavations;
- Cutting and grinding.

The background levels of dust in the atmosphere are low, therefore creation of excessive dust by the site works could become a nuisance to local residents if not controlled properly.

There is a potential for dust during the preparation of the site. Movements of trucks and other vehicles during the construction phase can generate significant dust emissions unless adequate control measures are implemented. In addition, air emission from the exhausts of plant construction machinery and trucks travelling to and from the site along the public road may also impact on the local air quality. The potential for dust emissions during the construction phase will be largely related to local wind conditions, coupled with the frequency and duration of rainfall. During dry weather conditions, the wind may cause re-suspension of dust from the construction area and trucks entering and leaving the site.

Air emissions from the exhausts of the construction vehicles and plant machinery will comprise mainly of nitrogen oxides, hydrocarbons and particulate emissions from the diesel engine exhausts. The impact of the emissions from the operation of the machinery during the construction phase will not have a significant impact on the ambient air quality of the area due to the scale and duration of the site preparation phase.

Concrete and fine-sized building materials will be delivered directly to the site as ready-mix or in covered trucks. Tarmacadam used for surfacing the access road will be delivered in covered trucks.

The overall impact on the surrounding air quality near the site boundary and the entrance is predicted to be a slight to moderate negative impact, as a result of dust emissions. These impacts will be short-term, lasting at most a few months and will depend on the amount of site preparation work required prior to laying the foundations of the site. Dust emissions will be effectively controlled through proper site management with the implementation of measures outlined in Section 4.10.2. It is predicted that the impact of dust and particulate emissions, at the nearest houses will be slight with no adverse effect on the local amenity or community health.

4.9.2 Mitigation Measures for Construction Works

Mitigation measures are recommended below that would minimise the impact local residents: -

- Stripping of the overburden during the site clearance will be undertaken so that the generation of dust emissions will be kept to a minimum.
- Regular maintenance of the site entrance will be undertaken including the prompt removal of any spillage to prevent dispersion and subsequent re-suspension by passing vehicles along the road.
- Burning of building waste or cleared vegetation on-site will be prohibited.
- The use of construction equipment designed to minimise dust generation;
- Sheeting of lorries during transportation of friable construction materials and spoil;
- Delivery of ready-mixed concrete where possible;
- Minimising drop heights for material transfer activities such as unloading of friable materials;
- Frequent wash down of roads and made surfaces;
- Wheel washing facilities for vehicles leaving the site;
- Water spray dampening of soils and surfaces to prevent dust dispersion during hot, dry weather conditions;
- Contractors required to develop and adhere to an Environmental Management Plan for the construction;
- Monitoring dust levels during construction works and comparison against established baseline levels.

Bearing in mind the mitigation measures suggested, the transient nature of the exposure and the limiting of impacts to the civil engineering section of the construction period of the proposed development, the potential impact on residents in the immediate vicinity of the site is not considered significant and should not represent a nuisance.

4.10 Noise

4.10.1 Construction Effects

Initial site clearance activities and construction will increase levels of noise. This could be of particular concern for local residents.

The site works will be limited to normal working hours during the day. The more intense and noisy activities associated with the use of large plant will only take place over a short duration and will be temporary in nature. All plant used will be well maintained with appropriate silencing equipment fitted.

Impacts

Noise is defined as unwanted sound. The range of audible sound of a healthy person is from 0dB to 140dB. It is generally accepted that a sound level of 20 dB (A) is virtually silent, 30dB(A) is very quiet, 50dB(A) is a moderate level of noise, 70dB(A) is quite noisy and 90dB(A) is extremely loud and may inflict hearing damage.

The following table gives an indication of what the above noise levels actually sound like.

Table 5 – Typical Noise Levels

Sound level dB(A)	Situation
100-110	Alarm clock, 1m way
80-90	Adjacent to motorway
70-80	Urban traffic at street edge
60-70	Normal conversation
50-60	Domestic conversation
40-50	Domestic bedroom, no TV/Radio

It is considered appropriate to keep daytime Laeq noise levels at less than 65dB(A). The main construction noise will be due to the removal of topsoil, laying foundations, pouring concrete, erecting buildings and general construction activity.

Published noise levels for typical construction vehicles at 20m from the centre of the activity when the equipment was in continuous use are as follows: -

Readymix truck 70dB(A)
JCB 820 power slide 73dB(A)
Volvo dump truck 71dB(A)

4.10.2 Mitigation Measures

At the houses located to the west of the site it is anticipated that high levels of noise will occur from standard construction activities associated with the

development. However, from the majority of houses in the area minimum noise from the construction will be heard. It is expected the appointed contractors would follow best practicable means to reduce the noise impact upon the local community during construction, this would include the following: -

- Proper use of plant with respect to minimising noise emissions and regular maintenance. All vehicles and mechanical plant used for the purpose of works should be fitted with effective exhaust silencers and should be maintained in good efficient working order;
- Selection of inherently quiet plant where appropriate;
- Machines in intermittent use should be shut down in the intervening periods between work, or throttled down to a minimum.
- All ancillary plant such as generators, compressors and pumps should be positioned so as to cause minimum noise disturbance.
- Adherence to the codes of practice for construction working given in British Standard BS5228, and the guidance given there in for minimising noise emissions from the site;
- Monitoring noise levels during construction works and comparison against established baseline levels.

It is expected that normal construction hours would be followed; Monday to Friday between 08:00 and 18:00 hours and on Saturdays between 08:00 and 13:00 hours.

4.11 Landscape and Visual Impact Assessment

The site is located within a World Heritage Site and within a landscape of historic interest in Wales (No. 16 on the Register Significance of the Impact of Development on Historic Landscape Areas on the Register of Landscapes of Historic Interest in Wales). Nevertheless, the reduction in value on the designated landscape brought about by the development is scored as a "3" in the ASIDOHL assessment, which is categorised as "Low".

The location of the site on the southern side of the Lwyd Valley means that it is visible from a large part of the residential area of Blaenavon located on the opposite side of the valley. As a result a large number of properties have a view of the site. However, it is seen against the open hillside, of which it forms only a small element.

4.11.1 Assessment

In assessing the visual impact that the scheme will have on the locality, various factors were considered including the location of the viewpoint, nature of existing views, distance between the receptor and the proposed scheme and sensitivity of the receptor.

The principal visual effects of the development fall into the following three categories: -

- the impact upon the site character

- the visual impact of the development on views for people living, working or travelling through the area.

- the visual impact in the context of the pre-industrial farming historical landscape within the World Heritage Site.

4.11.2 Summary of Landscape and Visual Constraints

The development of the site will involve a change in the land use within the site boundary which will significantly affect the landscape character of the site temporarily during construction and permanently following completion of the construction period.

In order to mitigate the adverse effects of the project from the landscape all trees deemed to be important will be retained. Trees which will remain and are included in the development design are indicated on Drawing ES1534.ES.08 in Appendix A.

The scheme lies opposite a residential area and impacts on views from dwellings are consequently significant. The impact of the development scheme on the landscape is dependent on the time of year during which construction works are undertaken. Commencement of the scheme during summer months would provide more effective screening than in winter when vegetation cover is sparse.

Certain measures have been incorporated into the proposed scheme which will be implemented within the site following the completion of the works to retain the landscape value of the area. These measure are as follows: -

- Planting using native species to enhance biodiversity and to tie the modified landform into the local landscape
- Careful consideration of the form and finish of structures and the brick/stone type used
- The appearance of other features such as street lighting and street signs

The species proposed will be compatible with the surroundings and will use trees of local provenance.

Areas where views of the site can be seen are indicated on Drawing ES1534.ES.05 in Appendix A. Locations with views of the site are generally restricted to the west of Varteg Road, north eastern area of Blaenavon town and the north western area of Blaenavon.

Due to the nature and layout of Blaenavon a minimum number of public locations have views of the site due to the location of the majority of roads running west to east along the Lwyd valley. All potential views of the site at road level are fully screened by houses located lower down the valley side.

From inside private property, open direct views of the site can be experienced. The roads running north to south which interconnect the previously mentioned roads have open direct views of small areas of the site. However, throughout the area, views of the site are seen against the backdrop of the hillside of which the site forms only a small part.

4.11.3 Mitigation measures

Two of the three internal field boundaries will be retained and improved by stone wall rebuilding and supplementary tree planting. The third field boundary is in very poor condition and is not marked by a line of trees. The stone from the dilapidated wall which marks that boundary will be reused to help rebuild the stone walls on the other boundaries.

All trees that are healthy and safe will be included in the design of the development. All dead or unsafe trees will be felled.

Trees will be planted to create a linear feature in the centre of the site which will recognise and reflect the existing field boundaries and create a natural pathway through the development.

All mature, healthy trees along the ravine will be maintained to ensure all houses all screened from viewpoints to the north west. All tree planting will be located near to existing trees to aid visual screening.

The basic visual change which will come about by residential properties replacing agricultural fields was accepted when the site was first designated for residential use. Nevertheless, it is important that those changes pay regard to the main landscape features on the site, and that the form of development reflects the locality within which it is situated.

As described in the architect's statement in Section 3.0 above, the design and layout of the scheme has been specifically created to reflect the locality in both form and detail.

4.12 Public Rights of Way

The construction and occupation of the development will not create a direct impact upon the Public Rights of Way located on the opposite northern side of the valley.

4.13 ASIDOHL

All direct and in direct impacts arising as a result of the development have been categorised and rated on a scale of magnitude. Their effect upon the landscape value and landscape value effect have also considered. The full results of the assessment can be seen in the ASIDOHL report in Appendix M.

4.13.1 Summary

Using the ASIDOHL process of assessment, as detailed in the "Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process" (CCW, Cadw, NAfW 2003), all relevant impacts of the development on the Registered Landscape have been considered. The assessment has been undertaken in the context of the Registered Landscape as a whole, as well as Character Area HLCA 018 as identified in the Glamorgan Gwent Archaeological Trust report "Historic Landscape Characterisation: Blaenavon" (January 2005). In addition, HLCA 018 has been sub divided and a smaller character area defined, known as the "Varteg Road Sub-area".

The assessment considers that overall there is a 'Low' reduction in value of the historic landscape area on the Register (see Table 13, column 3 of the *Guide to Good Practice* for the relevant impact scales).

When consideration of the development is focused on to the smaller character areas there is a consequential increase in its impact. This gives rise to a "Moderate" impact in respect of HLCA 018, and a "Fairly Severe" impact in respect of the Varteg Road Sub-area, as categorised in Table 6. These ratings have been arrived at through application of the ASIDOHL process and are not a reflection on the nature or character of the proposed development so much as a reflection of the historic landscape value of the site as it exists at present.

Table 6 Overall Significance of Impact

Score	Grading
26-30	Very Severe
21-25	Severe
16-20	Fairly Severe
10-15	Moderate
4-9	Slight
1-3	Very Slight

Summary of assessment of impacts

The assessment of impact of the development is based upon professional and objective judgements as to the archaeological and landscape value of the various elements identified and objective judgement of the degree of severity of impact upon those elements from the development.

Direct physical impacts

The loss of area to the development is roughly 2% of the HLCA. The 5 ha development area lies entirely within the Varteg Road sub-area of approximately 28 ha (roughly 18% of this area). The approximate percentage of each feature that will be impacted upon by the development is weighed against the archaeological importance of the features and their landscape significance to calculate the effect of the development upon landscape value.

Direct physical impacts of the development on the various elements that make up the historic landscape are considered to be slight for HLCA 018 and Moderate for the Varteg Road Sub-area.

Indirect physical impacts

The proposed development would result in a change of land-use resulting in the reduction of the area of land under traditional agricultural management within HLCA 018 and the Varteg Road Sub-area. The proposed development would effectively remove the farmstead from its agricultural setting and sever the contextual relationship between these two elements of the historic landscape. There would be a reduction of group value in relation to the neighbouring farm. Indirect, physical impacts will be Moderate for HLCA 018 and Considerable for the Varteg Road Sub-area.

Indirect (non-physical), visual impacts

The design, shape and appearance of the buildings is intended to reflect and be in keeping with the existing housing within the various HLCAs that make up the town of Blaenavon. The layout of the development is intended to reflect the topography and former land use of the area (the enclosed field system) and also to reflect the combination of planned and organic street layout that has evolved within the urban settlement areas of Blaenavon.

The Visual Impacts will be on average Moderate, but Considerable from some aspects and locations. Overall, the indirect impacts as a whole are rated as Slight for HLCA 018 and Moderate for the Varteg Road Sub-area.

Evaluation of relative importance

An evaluation of the relative importance of the two HLCAs (018 and 002) affected by the development produced a value of Considerable and High. This reflects the importance of the key landscape elements they contain to the whole Blaenavon Historic Landscape of which they are a part.

Assessment of overall significance of impact

The Registered landscape and World Heritage Site designations inevitably increase the significance of the impact of the development. The Overall Significance of Impact rating of ‘Fairly Severe’ for the Varteg Road sub-area is therefore a consequence of the importance of the landscapes involved, rather than the nature and character of the development. Most of the key characteristics that define HLCAs 018 and 002 will be largely unaffected, but again due to the importance of HLCA 018 as a whole, the overall significance of impact is rated as Medium.

Mitigating aspects of the development

Architecturally, the houses are designed to be in keeping with local and regional building styles, in order to complement the existing urban settlement.

The layout of the scheme reflects the development pattern of the urban core and expansion of Blaenavon. The visual impact of the development will be reduced by the careful positioning of houses, gardens and green spaces. These factors will reduce the impact of the development upon the overall integrity and coherence of the urban aspects of the Blaenavon Historic Landscape.

The development reflects the former land use of the area by retaining historic landscape features wherever possible, and allowing them to be 'read' within the layout and design of the scheme. Although some landscape features will be lost, others will remain as they are to deteriorate naturally. Others will be repaired, enhancing their landscape value within the scheme and prolonging their life as historic landscape features. In addition to the archaeological research and fieldwork that has been undertaken to date in relation to the development there may be further opportunity to undertake archaeological recording of field boundaries and other features that will be impacted upon. There is also potential within the scheme to enable improved public access, information and awareness of the historic landscape significance of the location within the context of the Blaenavon World Heritage Site as a whole.

Conclusion

The ASIDOHL has attempted to qualify and quantify the overall significance of impact of the proposed development upon the historic landscape as accurately and objectively as possible. Given that the principle of development on this site has already been accepted through its designation in the Torfaen Local Plan, then the proposed scheme offers a design solution which complements the existing urban settlement whilst retaining historic landscape features wherever possible.

4.13.2 Mitigation Measures

The proposed development has integrated mitigation measures into its design to minimise impact upon the landscape. Architecturally the houses are designed to be in keeping with local and regional building styles and traditions, and therefore should be in keeping with the existing urban settlement. The development is also such that certain aspects of the former landscape will be retained or reflected in the layout.

These measures will certainly soften the visual impact of the development, both looking to and from Blaenavon.

4.14 Ecology

4.14.1 Protected Sites.

As no sites of ecological designation are located at or near to the site no impacts will arise with regards this matter. Therefore no mitigation measures are deemed necessary.

4.14.2 Flora

No protected habitats and/or species were found at the site therefore it is predicated that no impacts will arise as a result of the development and therefore no mitigation measures are required.

4.14.3 Bats

4.14.3.1 Trees

The recommendations contained in the arboreal survey report will be complied with. Any trees that are felled will be allowed to remain on the ground undisturbed for 24 hours after felling.

If any mature trees have to be felled further bat survey work will be undertaken and a licenced bat worker will be present during felling to advise contractors and to handle any grounded bats.

If the tree does have any of the above or has a trunk size greater than 200mm, it should be cut only in September and October when bats, including young of the year, are still mobile and able to translocate. If the trunk is smaller than 200mm diameter and if it has no dense ivy, suitable holes, loose bark and no holes associated with the root system, then work can be carried out on the tree between August and February (i.e. avoiding the bird breeding season).

Work should not be carried out between June and August to avoid disturbing nursery roosts.

If felling were to take place during hibernation (November to March) the bats will be torpid, difficult to see and the whole roost may be lost, as they will be unable to escape. Therefore felling of trees which are used as bat roosts or are potential bat roosts should not take place between the end of November until the end of March.

4.14.3.2 Drainage culvert

The drainage culvert is outside of the proposed development area. If any development work will affect this culvert then a detailed bat survey of the culvert will be undertaken to determine its use by the species.

4.14.3.3 Barn Conversion

The barn has a low potential to be used by bats. However, when converting the building the gap in the lintel over the window in the north wall should be treated with care. If demolition of this wall is required then this should be undertaken by hand rather than with machinery.

As bats are not recorded to be roosting in the barn renovation works to the barn can be undertaken at any time of the year. However, if bats are found to be roosting at the barn at the time of the conversion all works should stop and

the CCW consulted. If bats are found at the barn the renovation works should be postponed until between March to May inclusive or September and November inclusive. At these times bats are not breeding and are more active and therefore, less likely to be affected by the works.

4.14.4 Barn Owls

No signs of Barn owls were recorded during the survey therefore no impacts and resulting mitigation measures are required for the species.

4.14.5 Wasp nest

Care should be taken if any work is to be carried out near the tree with the nest. Seasonal constraints on disturbing bird nests and bat roosts should be observed where applicable if measures are taken to destroy the wasp nest.

4.14.6 Reptiles

If reptiles are found during the development of the site, it is advisable to contact the Countryside Council for Wales and the Herpetofauna Groups of Britain and Ireland to discuss the best course of mitigation action to enable the scheme to proceed whilst being as sympathetic as possible to any reptile species found on the site.

No protected reptiles were found at the site during the site surveys, therefore no mitigation measures are required.

4.14.17 Mammals

4.14.17.1 Otters

Through detailed surface water design the runoff generated from the development will not impact upon the species therefore no direct mitigation measures are required.

The rough area of grassland and scrub to the north of the site has the potential to be used as an otter resting area. However, the close proximity of the adjacent housing may reduce its value to otters.

4.14.17.2 Badgers

No identification marks by the species were found within the site boundary. All land adjacent to the site did not contain signs of the species and no indicators of the presence of a sett were identified. Therefore no impacts upon the species are predicated and no mitigation measures are required.

4.14.17.3 Water Voles

All water bodies within the development area were deemed unsuitable for water voles as they were shallow and fast flowing. As a result of this

unsuitable habitat no impacts upon the species are predicted and therefore no mitigation measures are required.

4.14.17.4 Dormice

All linear features within and surrounding the site were deemed unsuitable for the species therefore no impacts upon the species as a result of the development will occur and no mitigation measures are required.

4.14.18 Great Crested Newts

The lack of suitable ponds and other water courses at the site makes the area unsuitable as a Great crested newt breeding area. However, the grassland and scrub area to the north of the site boundary has the potential to be a refuge site for amphibian species including Great crested newts.

The boulders and debris located within the dry water bodies within the site boundary offers potential amphibian refugia. However, no individuals of the species were recorded.

If Great crested newts are found during construction all work should be stopped and the CCW and Herpetofanua Conservation Group contacted. A licence to disturb Great crested newt and their habitat will be required from the National Assembly for Wales.

4.14.19 White Clawed Crayfish

The exposed root system within the banks of the tributary to the north west of the site provides potential crayfish refuge. This area is outside of the development and no white clawed crayfish were found to be present within the site boundary or within the Afon Lwyd.

As the species was not found to be present at the site no impacts regarding the species are predicted and therefore no mitigation measures are required.

If the species is found during construction all work should cease and CCW contacted.

4.15 Human Beings/Socio-Economic

From both the statistical analysis and the findings of the adopted Local Plan, it is quite clear that residential development providing a range of house types is required in Blaenavon if the underlying social and economic problems are to be addressed, and the ongoing regeneration work underpinned by an increase in economic activity. As this site is by far the largest housing development opportunity identified in Blaenavon, its contribution to this process is significant.

4.16 Archaeology and Cultural Heritage

All archaeological sites at the site were categorised according to the following criteria based on those given in the Department of Environment, Transport and Regions Design Manual for Roads and Bridges Volume 11 Section 3 Part 2 (1993): -

A – Sites of national importance – usually Scheduled Ancient Monuments and listed buildings
B – Sites of regional or county importance
C – Site of district or local importance
D – Minor site or site so badly damaged that too little now remains to justify their inclusion in a higher grade
E – Know insufficient information about the site to assign it to a higher grade

Table 7 Categories of Importance for Archaeological Sites Found

Site	NGR	Site type	Period	Category
K	SO25330834	Farmhouse	Post medieval	B
L	SO25310835	Barn	Post medieval	B
n/a	SO253083	Field boundaries	Various	B
G	SO25370837	Field Clearance/Lynchet	Post medieval	D
H	SO25450833	Field Clearance/Lynchet	Post medieval	D
n/a	SO253083	Field system	Various	B
E	SO25560834	Cockroad Row cottages	Post medieval	B
I	SO25430829	Quarry	Post medieval	D
J	SO25360832	Quarry	Post medieval	D
F	SO25540833	Mineral workings?	Unknown	E
n/a	SO 253083	Historic landscape	Various	A

Farmhouse and barn (sites K and L)

The existing farmhouse and barn, although much altered, are probably of 18th century origin or earlier. The extent to which original features may survive in either building is not known. Despite the extent to which they have been altered, it is their relationship to the surrounding agricultural lands (the significance of which has already been outlined) that makes them of regional importance (category B).

Field boundaries

Despite their condition and loss of function they define and give character to an agricultural landscape and a land holding of considerable age and significance. As such, although field boundaries are not uncommon, they are of local and regional significance (category B).

Field Clearance/Lynchet (sites G and H)

Evaluation of these sites demonstrated that they are the result of past agricultural practice, possibly originating in the medieval period. As individual elements in the landscape they are of minor importance, but they have greater significance for what they demonstrate about past land use, and should therefore be considered as an element of the historic landscape.

Field system

The field system the field boundaries associated with New Road Farm are of more than local importance owing to the unusually detailed documentation that can be related to them. Field systems can provide opportunities for understanding the growth, development and changes in the rural economy, land tenure systems, and the development of larger settlements such as Blaenavon.

Cockroad Row (site E)

Although not actually within the proposed development area, the remains of these cottages are immediately adjacent. They are assumed to be associated with the former railway which has been dismantled and re-landscaped. The cottages therefore are of local significance and of regional importance in relation to the historic railway route (category B).

Quarries and possible mineral workings (sites F, I and J)

The two quarries 'I' and 'J' are of interest in relation to the land use history of the area. They probably represent a low level of mineral exploitation or prospecting but are ultimately of minor archaeological significance (category D). The possible mineral workings 'F' tentatively identified during the site visit are potentially of similar interest, if they exist (category E).

Historic landscape

In addition to the individual sites described above, the group value and wider context of the study area needs to be considered in terms of an historic landscape. The site is located within an area registered as a Landscape of Outstanding Historic Interest in Wales and within an area now registered as an ICOMOS World Heritage Site, in recognition of its archaeological and historic significance. The importance of the historic landscape is considered in detail in the ASIDOHL (Cambria Report no. 2005/64).

4.16.1 Assessment of likely impacts

The likely physical impacts arising from the proposed development on each archaeological site has been assessed according to the following criteria: -

1 **Total** – complete destruction of the site
2 **Very severe** – loss of most of the major components of a site

3 **Severe** – loss of some of the major components of a site
4 **Medium** – loss of some components of a site
5 **Slight** – some loss of some minor components of a site
6 **None**
7 **Beneficial**

An assessment has also been undertaken on the likely non-physical impact of the proposed development on Category A and B sites. This includes factors such as a consideration of changes to the landscape setting and the potential loss of any significant views of, or from the individual sites.

Table 8 Assessment of Likely Impacts

SITE	NGR	Site type	Period	Category
K	SO25330834	Farmhouse	Post medieval	5
L	SO25310835	Barn	Post medieval	4
n/a	SO253083	Field boundaries	Various	1/3/6/7
G	SO25370837	Field Clearance/Lynchet	Post medieval	1
H	SO25450833	Field Clearance/Lynchet	Post medieval	1
n/a	SO253083	Field system	Various	3
E	SO25560834	Cockroad Row cottages	Post medieval	6
I	SO25430829	Quarry	Unknown	5
J	SO25360832	Quarry	Unknown	6
F	SO25540833	Mineral workings?	Unknown	5
n/a	SO253083	Historic landscape	Various	1

4.16.2 Significance of impact and Suggested Mitigation

To determine the significance of impact the likely impact will be assessed against site importance. This has been undertaken using the table below.

Table 9 – Significance of Important Categories

LIKELY IMPACTS	ARCHAEOLOGICAL IMPORTANCE				
	A	**B**	**C**	**D**	**E**
Total	Major	Major	Moderate	Minor	Unknown
V Severe	Major	Major	Moderate	Minor	Unknown
Severe	Major	Moderate	Minor	Minor	Unknown
Medium	Moderate	Moderate	Minor	Minor	Unknown
Slight	Moderate	Minor	Minor	Minor	Unknown
None	No Impact	No Impact	No Impact	No Impact	No Impact
Beneficial	Beneficial	Beneficial	Beneficial	Beneficial	Unknown

Suggested mitigation will be based on the results of the Significance of Impact assessment. The level mitigation will be based on the following criteria:

Major - full or large scale recording of site will be required
Moderate - some recording of site will be required
Minor - low-level site recording will be required
No Impact - no further action required
Beneficial - some input may be required to ensure benefit is maximised

Table 10 Significance of Importance Assessment

NPRN	NGR	Site type	Period	Category
K	SO25330834	Farmhouse	Post medieval	Minor
L	SO25310835	Barn	Post medieval	Minor
n/a	SO253083	Field boundaries	Various	Moderate
G	SO25370837	Field clearance/Lynchet	Post medieval	No Impact
H	SO25450833	Field clearance/Lynchet	Post medieval	No Impact
n/a	SO253083	Field system	Various	Moderate
E	SO25560834	Cockroad Row cottages	Post medieval	None
I	SO25430829	Quarry	Unknown	Minor
J	SO25360832	Quarry	Unknown	No Impact
F	SO25540833	Mineral workings?	Unknown	Unknown
n/a	SO253083	Historic landscape	Various	Major

Farmhouse and barn (sites K and L)

In the light of previous alterations to the existing farm buildings, further impacts are likely to be of minor significance. Archaeological building recording might be considered as mitigation.

Field boundaries

It is not intended that field boundaries around the perimeter of the development area will be impacted upon. There will therefore be no significant impact upon these features from the development, and no further action would be required. They will presumably therefore continue to deteriorate naturally, though remaining as archaeological features.

The proposed development will have a destructive effect on the surviving field boundaries (as well as the associated lynchets and the field clearance stones, between fields D, C and A). Archaeological recording of these features should be considered as mitigation for the severity of this impact.

It is intended that the field boundary between fields B and C will be retained within the proposed scheme, with the possibility of their repair or re-instatement using stones from the boundaries that will be lost. This would be of benefit to the longevity and visual impact of the surviving feature. Appropriate mitigation would be to ensure that any such repair or reconstruction was undertaken using suitable materials and techniques, and with reference to the building styles of other drystone walls in the locality. This might require additional recording of field boundaries.

Field Clearance/Lynchet (sites G and H)

Although the impact of the development upon these features will be severe, because the features are considered to be of minor significance in themselves the significance of the impact from development has effectively already been mitigated by the recording that was undertaken during recent field evaluation to characterise these features (Murphy 2005). No buried soil horizons were found preserved beneath the lynchets. No further mitigation is considered necessary, except within the context of recording of the associated drystone field boundary.

Field system

Although the setting of the field system will be severely impacted upon, much of its original layout will still be discernable within the development. The main exception to this is the loss of the field boundary and associated lynchets and field stone clearance features. Together, these features represent a significant aspect of the field system. Preservation by record, coupled with possible educational or information panels might be considered as appropriate mitigation, to enable the significance of the field system within the historic landscape to be better discerned and understood.

Cockroad Row (site E)

Cockroad Row lies just beyond the proposed development area and no significant impact upon this feature from the development is envisaged. Mitigation by archaeological recording would only be required at this site if it was included within the development area or was otherwise threatened by the development.

Quarries and possible mineral workings (sites F, I and J)

The impact of development on these features is unlikely to be of great significance. Quarry 'J' is no longer a visible feature of the landscape there will be no significant impact and therefore no mitigation is necessary. The small quarry (I) is located close to a drystone wall field boundary that will be retained as a design feature within the proposed development. As a consequence there may be no impact upon it from the development. Any impact there might be will be of minor significance. At most a low level of archaeological recording might be considered as mitigation. A similar level of mitigation might be considered if additional mineral workings (F) are found to exist.

Historic landscape

The significance of the impact of the proposed development upon the historic landscape is considered in detail within the ASIDOHL (Cambria Report no. 2005/64)

4.17 Services

4.17.1 Dŵr Cymru

The location of a foul water pipe which runs north along the western boundary of the site will enable the development to connect to this service with minimum impact.

Detailed surface water drainage design will create minimum impact upon the Afon Llwyd.

4.17.2 NTL

This service is not located within the vicinity of the site and therefore is not available to the development.

4.17.3 British Pipeline Agency Limited

This service is not located within the vicinity of the site and therefore is not available to the development.

4.17.4 National Grid Transco

The presence of a low pressure mains gas pipe along the western boundary of the site indicates that this service is available to the development.

It is predicated that no excavation works will be required near to the pipe. However, if work is to be undertaken in the vicinity of Transco equipment then in the interest of safety a meeting should be arranged before the commencement of work on site between Transco representatives, representatives of the promoting authority, the contractors and any other interested parties. This should be carried out well in advance of the work. Access to Transco plant and facilities for inspection by Transco staff must not be affected. Where formal consent is given a minimum of seven days notice is required before carrying out work in Transco easements.

4.17.5 Western Power Distribution

An overhead 66/132kV power line crosses the site from south east to north west. All work within the site must comply with the requirements of Health and Safety Executive guidance laid down in GS6, Avoidance of Danger from Overhead Electric Cables.

No tall machinery will operate in this area.

4.17.6 BT

The presence of a BT phone line to the west of the site running north to south indicates that this service is available to the development.

4.18 Interaction of the Foregoing

Environmental impacts which interact to create another or an increased environmental impact at the site are outlined below.

4.18.1 Felling of trees

Tree felling will decrease the amount of existing vegetation which currently screen the site. This will result in an increased area of the site being viewed by the public from the northern side of the valley. However, the only trees to be felled are either of poor quality or are unhealthy. As it is proposed to provide both replacement and supplemental tree planting, over time there will be an increase in vegetation screening the site.

Some felling of trees is necessary due to the trees being unsafe. Care will be taken to avoid trees that are safe and healthy during all felling periods. Where possible all trees with a large canopy will be retained.

4.18.2 Felling of trees located near existing field boundaries

Felling of trees which are close to existing field boundaries will disturb the ground and therefore disturb the dry stone walls.

If archaeological recording of field boundaries is required all tree felling will be delayed until field work is completed

4.18.3 Otter Safe Surface Water Drainage

All surface water drainage will be designed to include measures suitable for otters.

4.19 Summary of Significance of Impact

The table below summarises the levels of impact upon each environmental aspect at the site as a result of the proposed development.

Table 11 Summary of Significance of Impact

Environmental Impact	Significance
Land Use	Significant
Traffic	Moderate
Topography	None
Geology – Bedrock	Slight
Geology – Soils and Sub-soils	Moderate
Coal Mining	None
Site Investigation	None
Hydrogeology	Slight
Hydrology	Moderate
Air	Temporary – Moderate

Environmental Impact	Significance
	Operation – Slight
Noise	Temporary – Moderate Operation – Slight
Surface Water	Significant
Landscape and Visual Impact Assessment	Low overall to significant locally
Public Rights of Way	Slight
ASIDOHL	Significant
Ecology – Protected Sites	None
Ecology – Flora	None
Ecology – Bats (Trees)	Negligible
Bats (Drainage culvert)	Negligible
Bats (Barn)	Negligible
Barn Owl	None
Wasp nest	Slight
Reptiles	None
Mammals – Otters	Slight
Badgers	None
Water Voles	None
Dormice	None
Great crested newts	Slight
White clawed crayfish	Slight
Human Beings/Socio economic	Significantly positive
Archaeology and Cultural Heritage	Low
Services – Dwr Cymru	Slightly positive
NTL	None
British Pipeline Agency Limited	None
National Grid Transco	Slightly positive
Western Power Distribution	Moderately positive
BT	Slightly positive
Interaction of the foregoing – felling of trees	Slight
Felling of trees located near existing field boundaries	Slight
Otter safe surface water drainage	Slight

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Aerial Photographic Sources

The following aerial photographs were examined at the NMR during this survey: -

Organization	Sortie	Date	Frames	Scale
BBNP	1285	28/04/1985	143-144	1:20,000
CPE/UK/2079	RAF	19/05/1947	1007-1010	1:9800
CPE/UK/1997	RAF	12/05/1951	4330	1:9800
MAFF	MAFF	10/06/1984	4212-4213	1:12000
Meridian	17/73	14/4/1973	020-021	1:3000
OS 69 074	OS	05/04/1969	056-057	1:7500
SCORPISW	69/91	29/08/1991	223-224	1:10,000
58/1110	F22	05/05/1953	219-220	
58/1715	F22	14/04/1955	217	1:10000

Cartographic sources

Ordnance Survey	Monmouthsire XII.13	1st ed . 1:25,000	1880
Ordnance Survey	Monmouthsire XII.14	1st ed . 1:25,000	1880-82
Ordnance Survey	Monmouthsire XII.13	2nd ed. 1:25,000	1901
Ordnance Survey	Monmouthsire XII.14	2nd ed. 1:25,000	1901
Ordnance Survey	Monmouthsire XII.13	3rd ed. 1:25,000	1920
Ordnance Survey	Monmouthsire XII.14	3rd ed. 1:25,000	1920
Ordnance Survey	National Grid Series SO2507	1:25,000	1962
Ordnance Survey	National Grid Series SO2508	1:25,000	1962

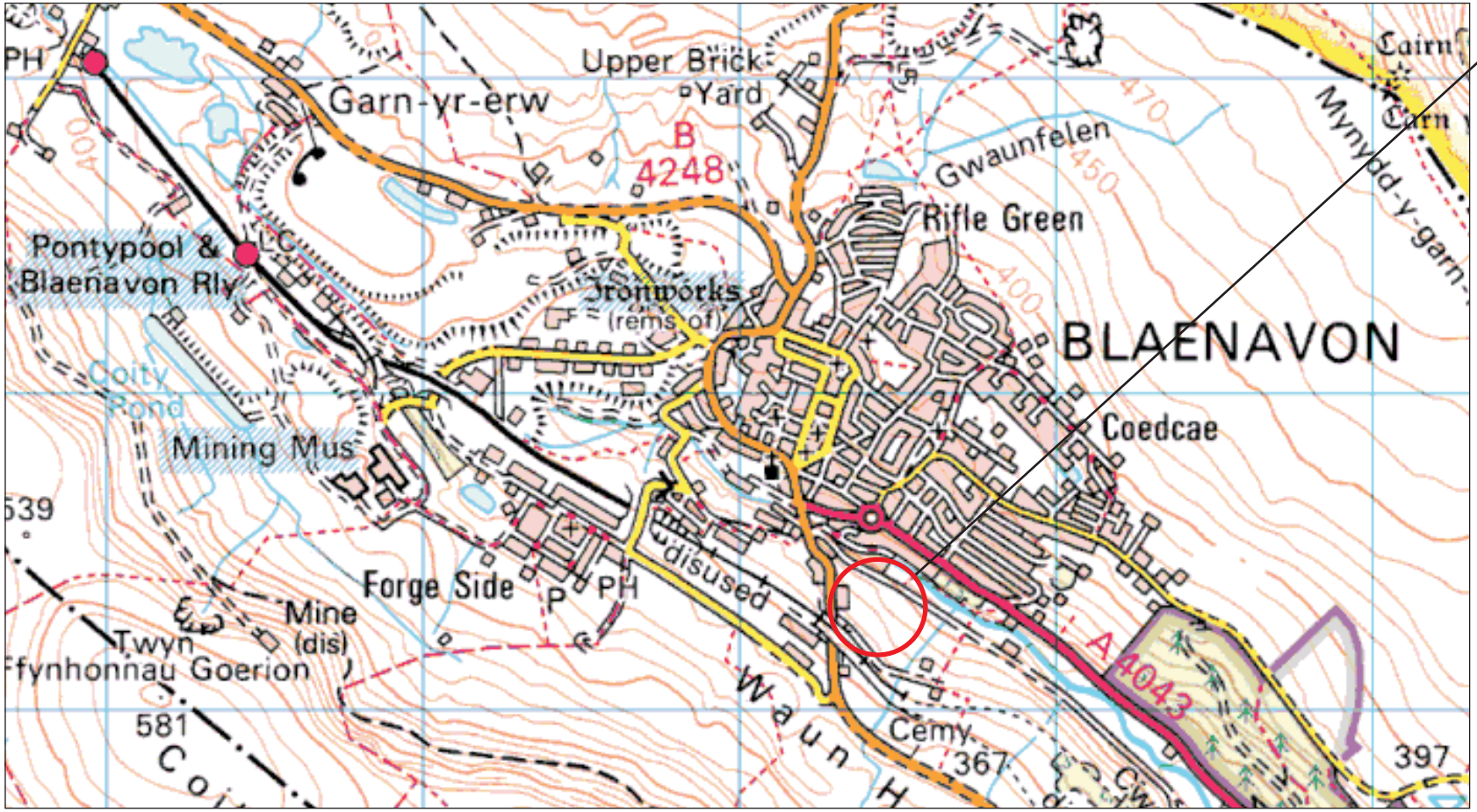
Tithe maps and apportionments

Plan of the parish of Aberystruth, Monmouthshire and apportionment
Plan of the parish of Llanfoist, Monmouthshire and apportionment
Plan of the parish of Llanellen, Monmouthshire and apportionment
Plan of the parish of Llanover, Monmouthshire and apportionment
Plan of the parish of Llanwenarth Ultra, Monmouthshire and apportionment
Plan of the parish of Trevethin, Monmouthshire and apportionment

John Aram's 1793 survey map (Pontypool Park Estate Office)
Thomas Dadford's Map of 1792
Thomas Deakins Map of Blaenavon 1819 (GRO MAN/A/2/2073)
Survey of the Barony of Abergavenny by David Davies 1821 (GRO D1583.188)
Property of Blaenavon Ironworks 1837 (GRO D591.112.27)

APPENDIX A

Drawings



Project:

New Road Farm, Varteg Road, Blaenavon

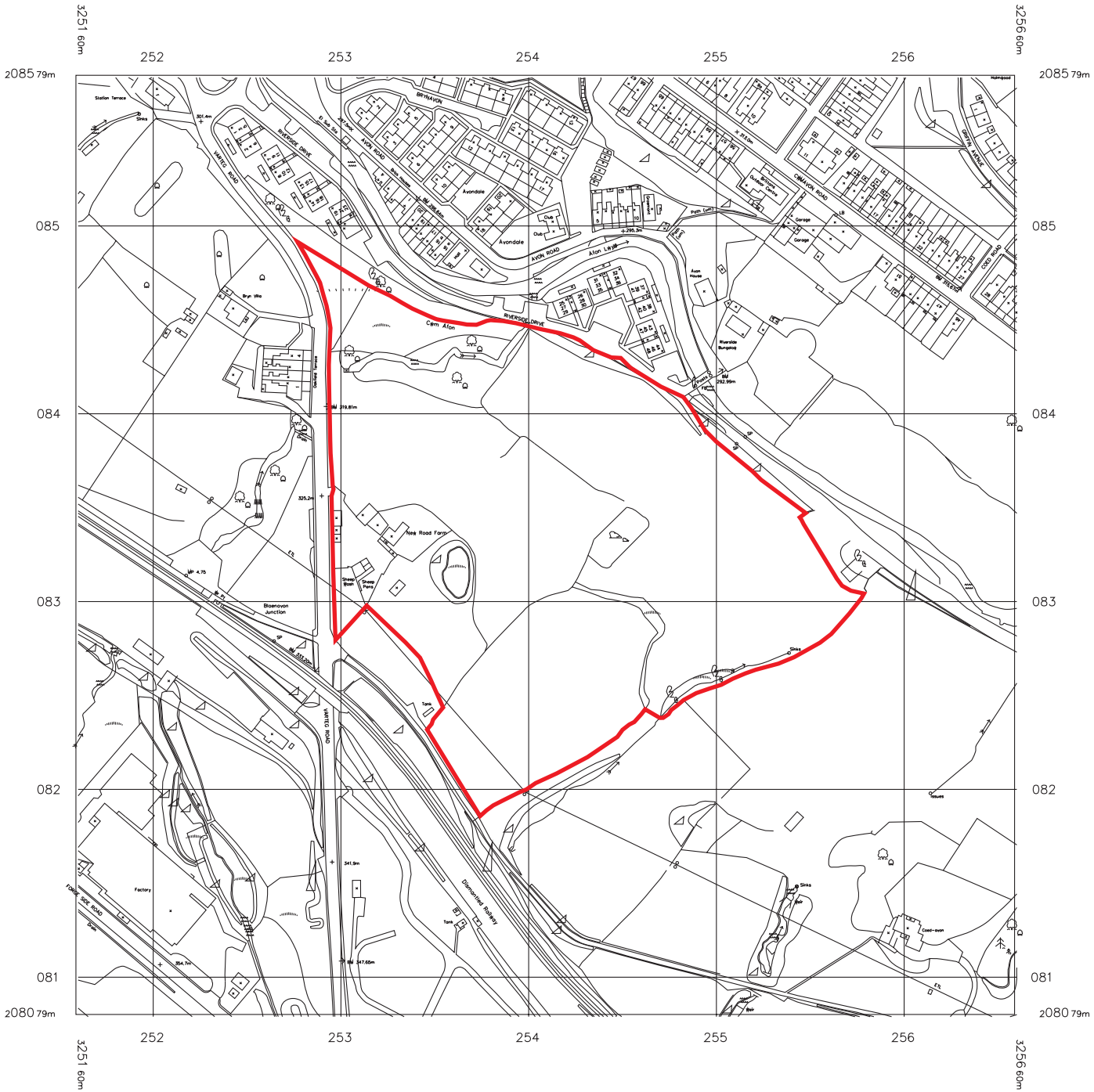
Title:

Site Location

Date:	May 2005
Scale:	NTS
Drawn by:	JMB
Checked by:	SR

EXCAL LIMITED
ExCAL House
Capel Hendre Industrial Estate
Ammanford
Carmarthenshire
SA18 3SJ
Tel: 01269 831606 Fax: 01269 841867
Website: www.excaluk.com E-mail: reception@excaluk.com

Drawing number: ES1534.ES.01



Project:

New Road Farm, Varteg Road, Blaenavon

Title:

Site Boundary

Date: February 2005

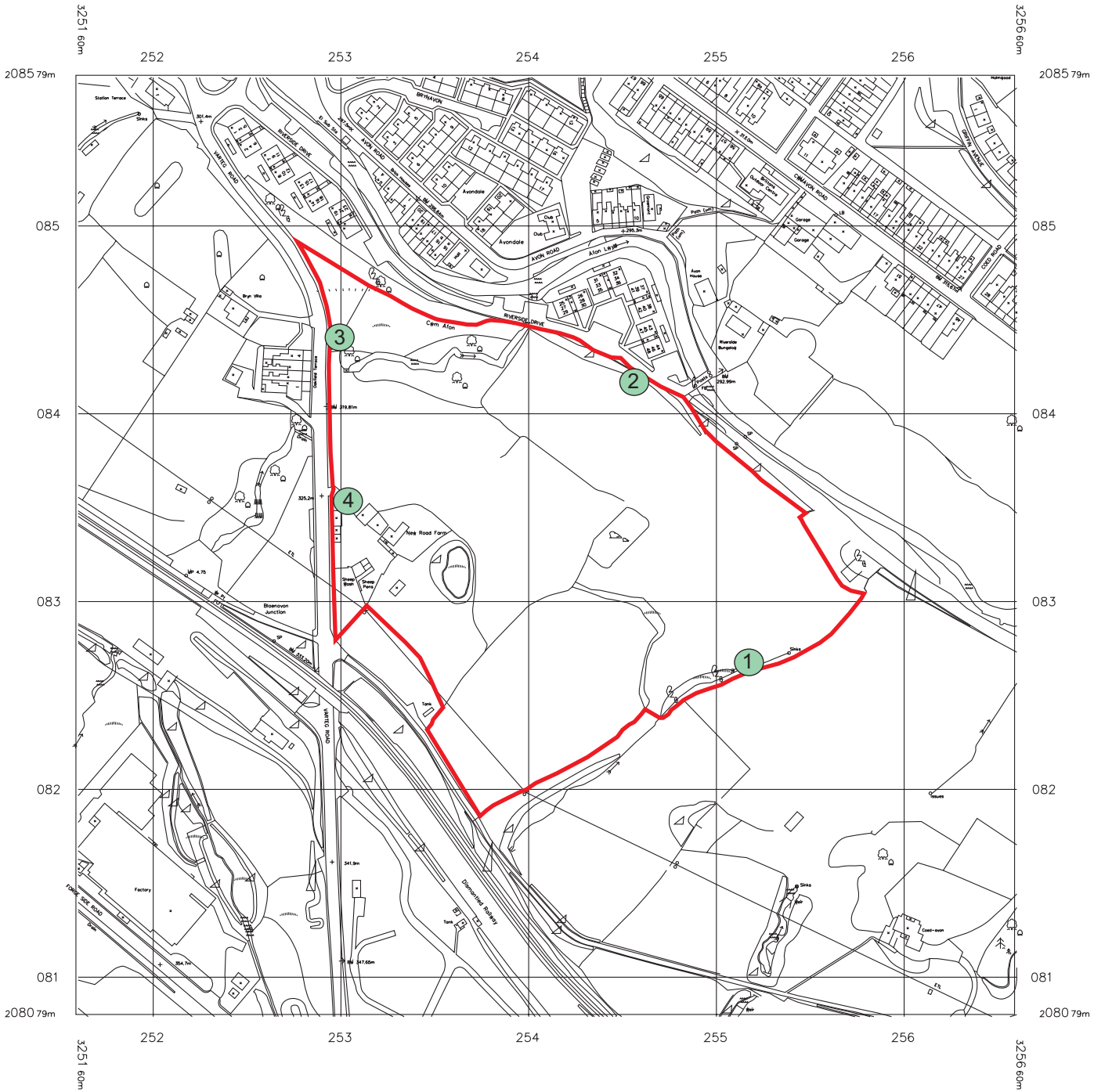
Scale: NTS

Drawn by: HJ

Checked by: SW

EXCAL LIMITED
ExCAL House
Capel Hendre Industrial Estate
Ammanford
Carmarthenshire
SA18 3SJ
Tel: 01269 831606 Fax: 01269 841867
Website: www.excaluk.com E-mail: reception@excaluk.com

Drawing number: ES1534.ES.02



Legend

- Site boundary
- N
- 1 Noise and dust monitoring location

Project:

New Road Farm, Varteg Road, Blaenavon

Title:

Noise and Dust Monitoring Locations

Date: February 2005

Scale: NTS

Drawn by: HJ

Checked by: SW

EXCAL LIMITED
ExCAL House
Capel Hendre Industrial Estate
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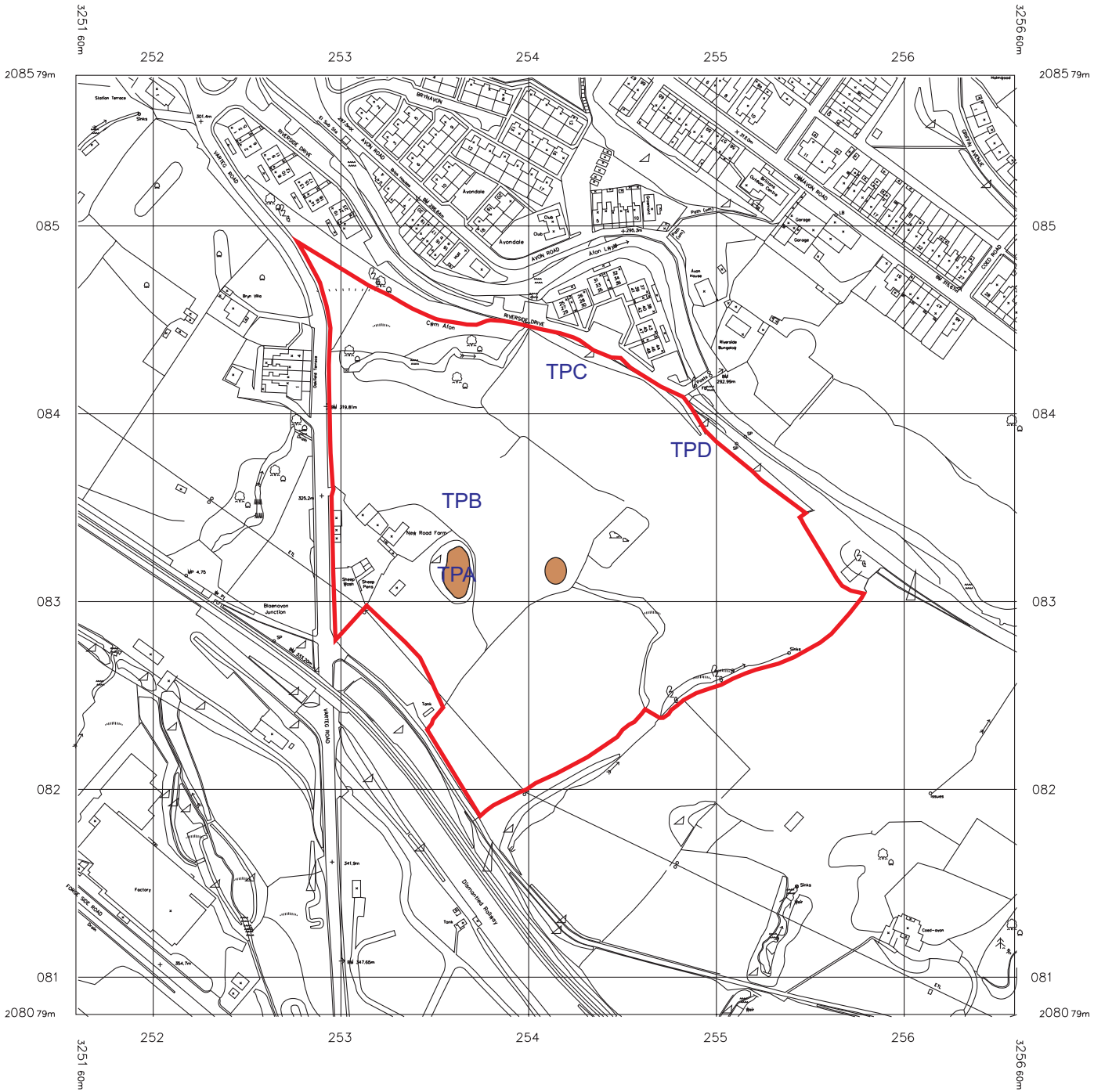
SA18 3SJ
Tel: 01269 831606 Fax: 01269 841867
Website: www.excaluk.com E-mail: reception@excaluk.com

Drawing number: ES1534.ES.03



Legend

- Site boundary
- Location of the quarries
- TPA Location of the Trial Pits

N

Project:

New Road Farm, Varteg Road, Blaenavon

Title:

Location of quarries and site investigation

Date: February 2005

Scale: NTS

Drawn by: HJ

Checked by: SW

EXCAL LIMITED
ExCAL House
Capel Hendre Industrial Estate
Ammanford
Carmarthenshire
SA18 3SJ
Tel: 01269 831606 Fax: 01269 841867
Website: www.excaluk.com E-mail: reception@excaluk.com

Drawing number: ES1534.ES.04

Legend

Site Location

Visual envelope

N

Job:
New Road Farm, Varteg Road, Blaenavon

Title:
Visual Envelope

Date: April 2005

Scale: NTS

Drawn by: HJ

Checked by: SW

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Drawing number: ES1534.ES.05

Revision no: **Date:**

N

Legend

L Visual Impact Location

Site Location

L1 New houses on Oakfield Terrace
L2 House no's 1, 2 and 4 on Oakfield Terrace
L3 Riverside Bungalow
L4 Avon House
L5 Flats on Riverside Drive
L6 Brynavon Housing
L7 Avondale Housing
L8 Capel Newydd Avenue and Coed Road Junction
L9 Griffin Avenue
L10 Greenfield Place
L11 Western area of Capel Newydd Avenue
L12 Glade Bungalow on Cwmavon Road
L13 James Street
L14 Llanover Road
L15 Heol y Coed
L16 Coed Wood
L17 Capel Newydd Avenue
L18 Coed Llwyd Close
L19 Giles Road
L20 Elgan Avenue House no's 87 -100
L21 Rifle Street
L22 Elgan Avenue House no's 131 -144

Job:
New Road Farm, Varteg Road, Blaenavon

Title:
Visual Impact Assessment Locations

Date: April 2005

Scale: NTS

Drawn by: HJ

Checked by: SW

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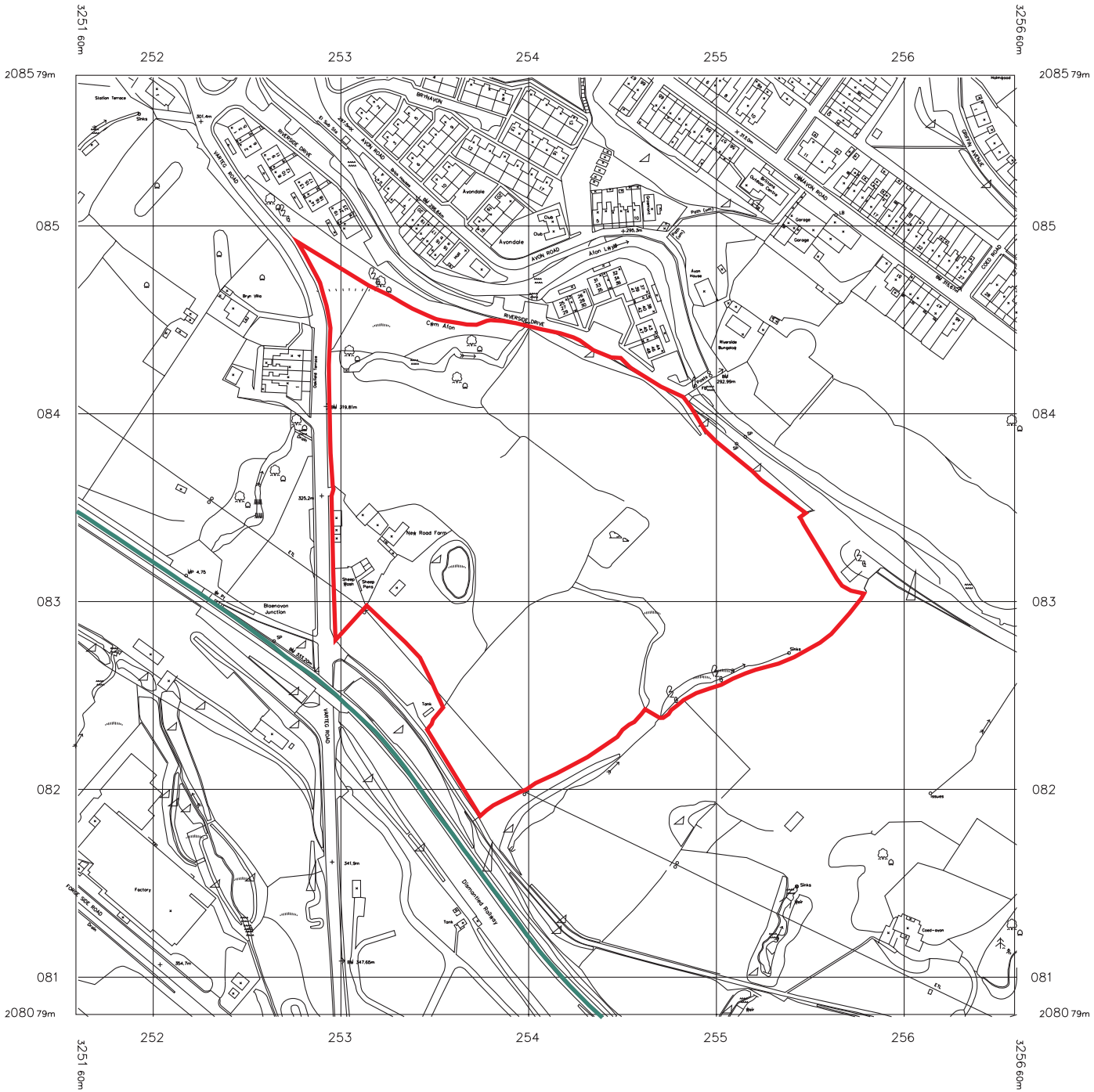
Drawing number: ES1534.ES.06

Revision no: **Date:**



Legend

- Site boundary
- Location of the National Cycle Route

N

Project:

New Road Farm, Varteg Road, Blaenavon

Title:

Location of National Cycle Route

Date: February 2005

Scale: NTS

Drawn by: HJ

Checked by: SW

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Carmarthenshire
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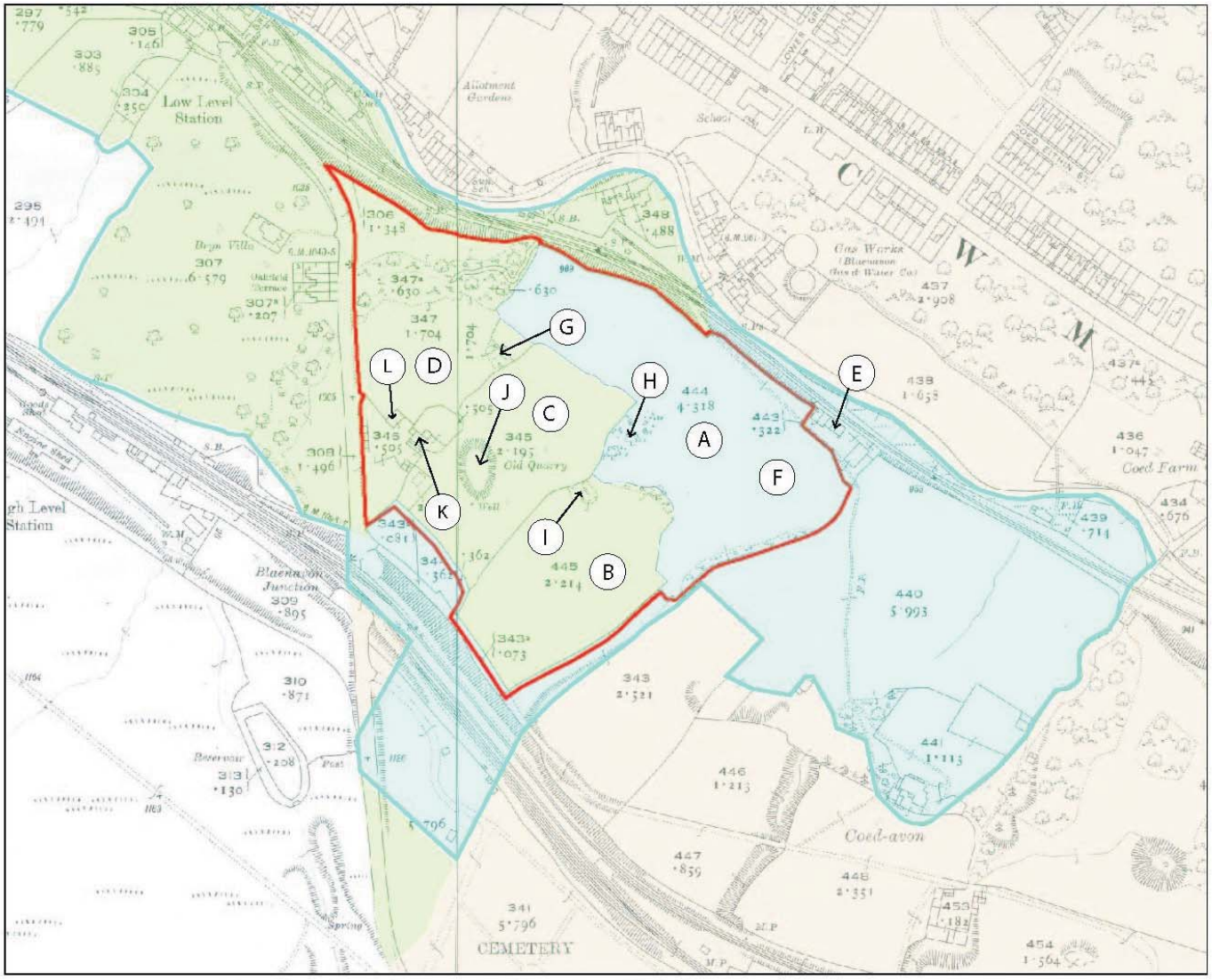
Drawing number: ES1534.ES.07



KEY

- Area for which rent was charged in 1586-possibly a survival of a medieval gwestfa rent
- Area of original gwestfa rent not included in 1793 holding
- Area of New Road Farm holding in 1793
- New Road Farm area of proposed development
- Additional freehold in 1586
- Unenclosed land

- (A) Field A
- (B) Field B
- (C) Field C
- (D) Field D
- (E) Cockroad Row
- (F) Location of possible mineral workings
- (G) Possible deserted settlement
- (H) Possible deserted settlement
- (I) Quarry
- (J) Quarry
- (K) Farmhouse
- (L) Barn

N

Project:

New Road Farm, Varteg Road, Blaenavon

Title:

Archaeological locations

Date:	May 2005
Scale:	NTS
Drawn by:	HJ
Checked by:	SW

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Tel: 01269 831606 Fax: 01269 841867
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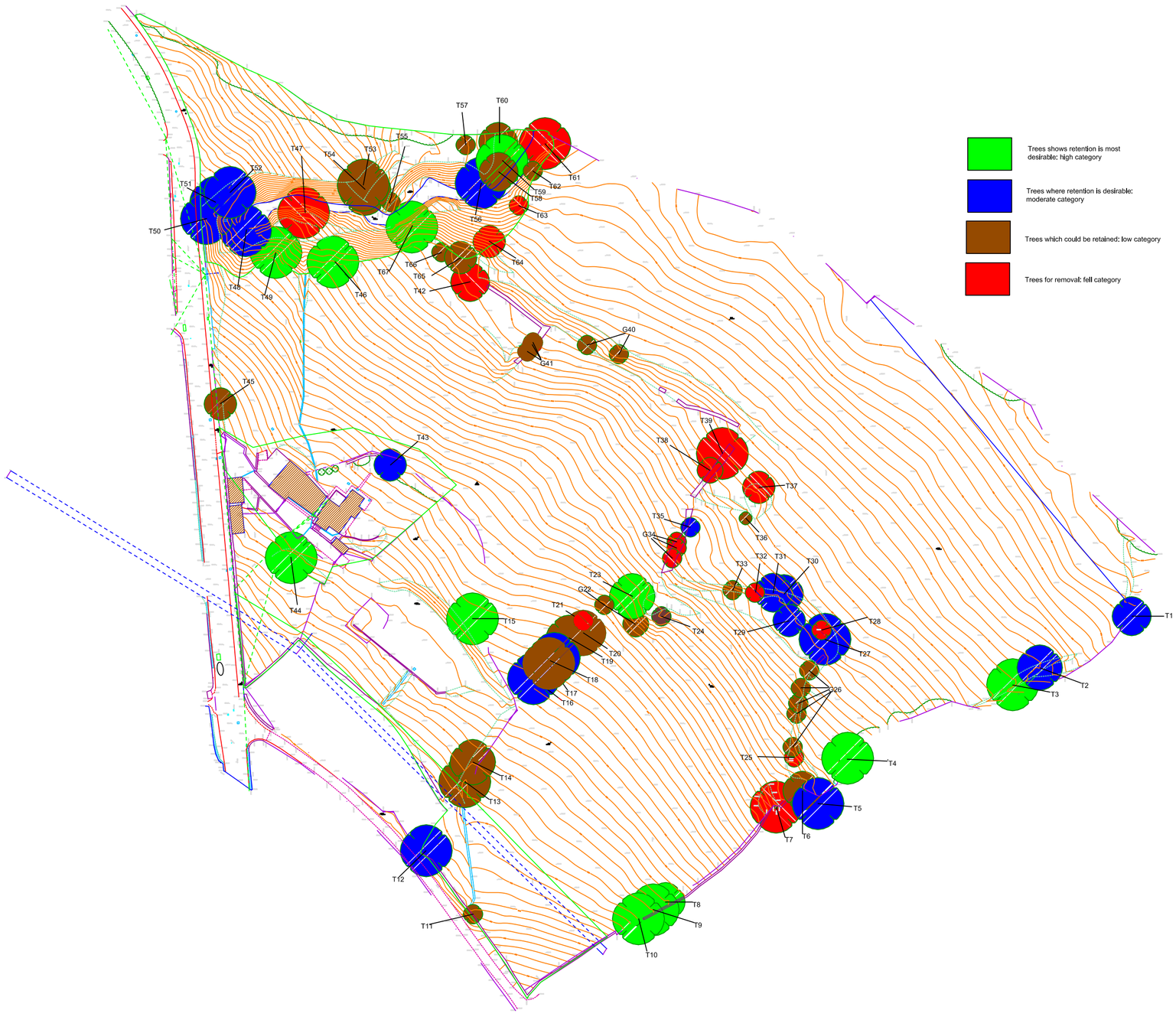
Drawing number: ES1534.ES.10



Notes: A2

N

Job:
New Road Farm, Varteg Road, Blaenavon

Title.
Aboraeocultural survey

Date:	**May 2005**
Scale:	**NTS**
Drawn by:	**HJ**
Checked by:	SW

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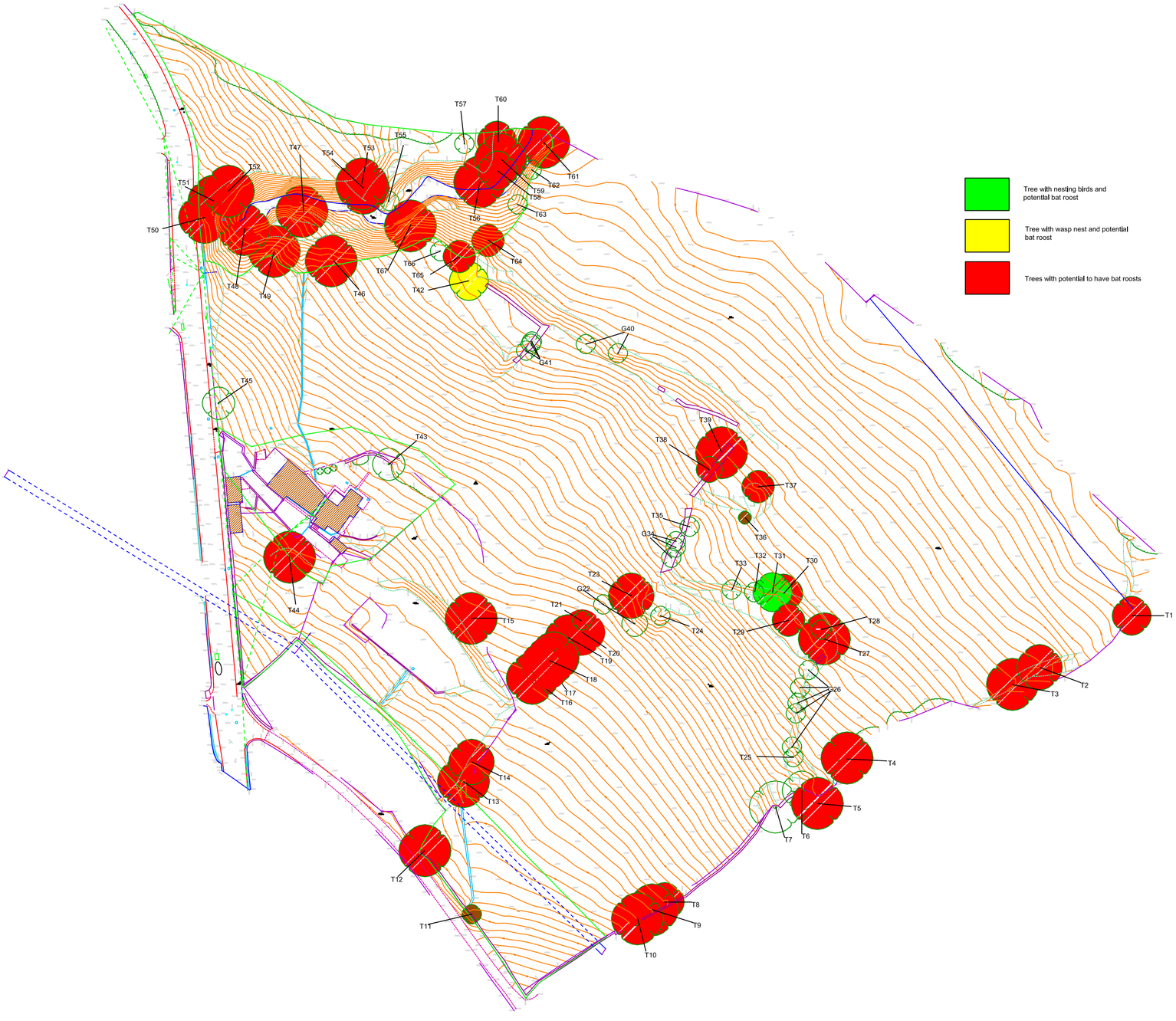
Drawing No:	ES1534.ES.08
Revision No:	**Date:**



Tree with nesting birds and potential bat roost

Tree with wasp nest and potential bat roost

Trees with potential to have bat roosts

Notes:

A2

N

Job:
New Road Farm, Varteg Road, Blaenavon

Title.
Ecology

Date:	**May 2005**
Scale:	**NTS**
Drawn by:	**HJ**
Checked by:	SW

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Carmarthenshire
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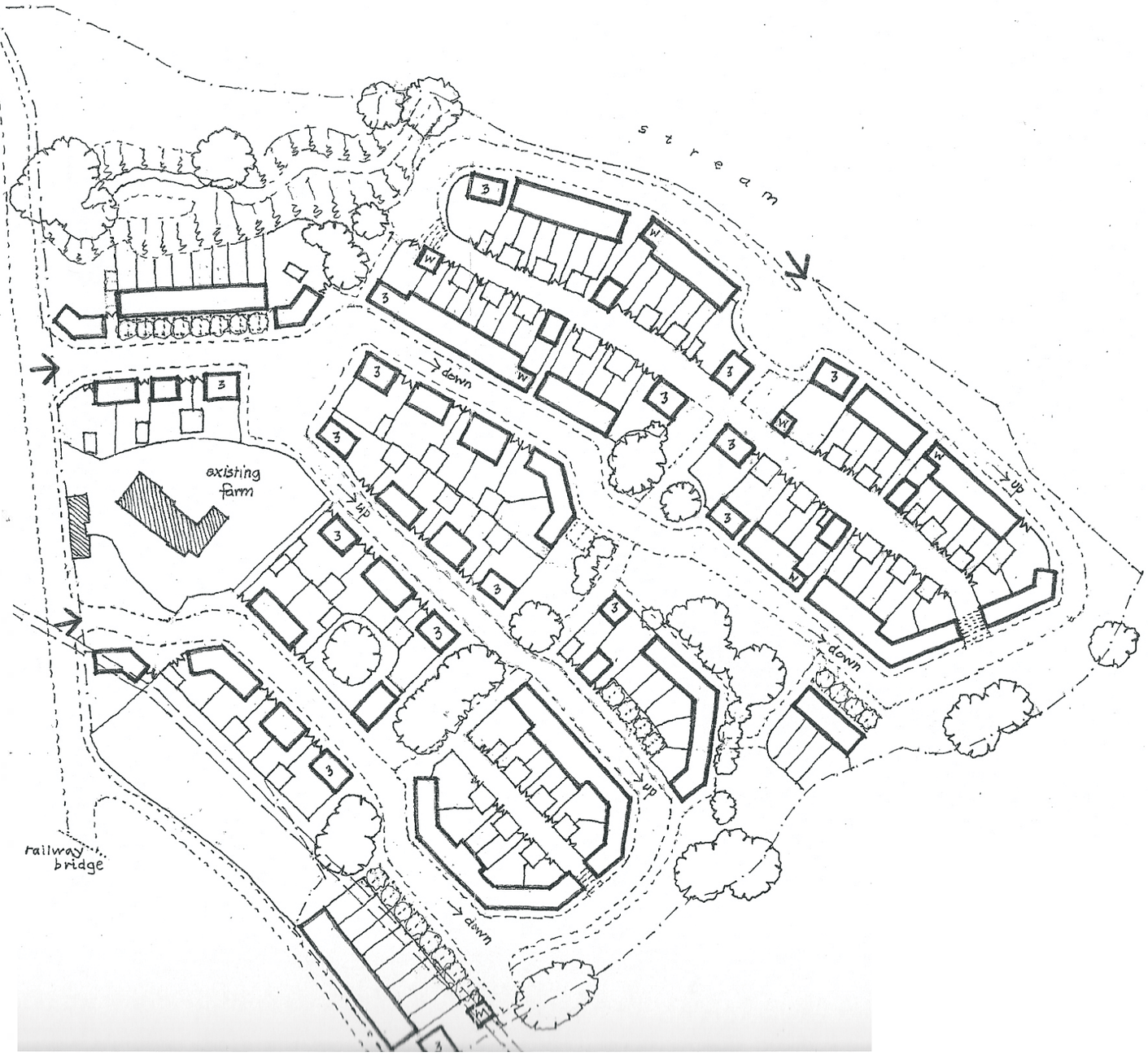
Drawing No:	ES1534.ES.09
Revision No:	**Date:**



KEY

- Existing farm buildings
- Existing tree
- New buildings
- W — Existing farm buildings
- 3 — Existing tree
- New buildings
- Workshop over garage
- Three storey dwelling
- Site boundary
- Kerb/edge of footpath
- Parking space
- Double garage
- Single garage
- New tree
- Wall/fence
- Rumble strip
- Proposed site access (vehicles and pedestrians

N

Job:
New Road Farm, Varteg Road, Blaenavon

Title:
Proposed development layout

Date: May 2005

Scale: NTS

Drawn by: HJ

Checked by: SW

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Drawing number: ES1534.ES.11

Revision no: | **Date:**

APPENDIX B

Envirocheck Report

Envirocheck®
A Landmark® product

Envirocheck® Report

Datasheet

Report on:
New Road Farm
Varteg Road
Blaenavon
Pontypool
Torfaen
NP4 9DY

National Grid Reference :

325430, 208340

Prepared For :
Excal Limited
Excal House
Capel Hendre Industrial Estate
Ammanford
Carmarhtenshire
SA18 3SJ

Your Reference:

Mr J Bailes,ES1487

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity Datasheet places great emphasis on statutory data provided by the Environment Agency and the Scottish Environment Protection Agency; it also incorporates data from English Nature (and the Scottish and Welsh equivalents), the Environment Agency (and the Scottish equivalent) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the legend database to 1km from a single point or a site boundary provided by the client

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers

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Data Type	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological				
Air Pollution Controls			1	5
Air Pollution Control Enforcements				
Contaminated Land Register Entries and Notices				
Discharge Consents		2	1	13
Enforcement and Prohibition Notices				
Integrated Pollution Controls				1
Integrated Pollution Prevention And Control				
Nearest Surface Water Feature	Yes			
Pollution Incidents to Controlled Waters	2	14	1	6
Substantiated Pollution Incident Register		5	2	
Prosecutions Relating to Authorised Processes				
Prosecutions Relating to Controlled Waters				
Water Industry Act Referrals			1	
Registered Radioactive Substances				
River Quality	1			1
River Quality Biology Sampling Points				1
River Quality Chemistry Sampling Points		1		
Water Abstractions				4 (*14)
Groundwater Vulnerability	Yes			
Fluvial Indicative Floodplains	Yes	Yes		
Tidal Indicative Floodplains				
Source Protection Zones				
River Flood Data (Scotland)				
Waste				
BGS Recorded Landfill Sites				1
Integrated Pollution Control Registered Waste Sites				
Licensed Waste Management Facilities (Landfill Boundaries)				
Licensed Waste Management Facilities (Locations)				
Local Authority Recorded Landfill Sites				
Registered Landfill Sites				
Registered Waste Transfer Sites				
Registered Waste Treatment or Disposal Sites				

Data Type	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Hazardous Substances				
Control of Major Accident Hazards Sites (COMAH)				
Explosive Sites				
Notification of Installations Handling Hazardous Substances (NIHHS)				
Planning Hazardous Substance Consents				
Planning Hazardous Substance Enforcements				
Geological				
BGS Boreholes		59	15	26
BGS Recorded Mineral Sites				2
BGS 1:625,000 Solid Geology	Yes			
Brine Compensation Areas				
Coal Mining Affected Areas	Yes			
Shallow Mining Hazards		Yes		
Compressible Ground Subsidence Hazards	Yes	Yes		
Ground Dissolution Subsidence Hazards	Yes			
Gulls And Cambering Subsidence Hazards				
Landslip Subsidence Hazards	Yes			
Swelling Clay Subsidence Hazards				
Mining Instability	Yes			
Natural and Mining Cavities				
Radon Affected Areas	Yes			
Radon Protection Measures	Yes			
Industrial Land Use				
Contemporary Trade Directory Entries		2	4	27
Fuel Station Entries			1	2

Data Type	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Uses				
Areas of Adopted Green Belt				
Areas of Unadopted Green Belt				
Areas of Outstanding Natural Beauty				
Environmentally Sensitive Areas				
Forest Parks				
Local Nature Reserves				
Marine Nature Reserves				
National Nature Reserves				
National Parks				
National Scenic Areas				
Nitrate Sensitive Areas				
Nitrate Vulnerable Zones				
Ramsar Sites				
Sites of Special Scientific Interest				1
Special Areas of Conservation				
Special Protection Areas				

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Air Pollution Controls				
1	Name: Ffynonau-Duon Mines Location: Johnson Mine,Forgeside,BLAENAVON,Gwent,NP4 9DB Authority: Torfaen County Borough Council, Department for the Environmental Permit Reference: Epa B20 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG3/5 Coal, coke and coal product processes Status: Authorisation either revoked or cancelled Positional Accuracy: Unknown	NW	484	1	324900 208800
	Air Pollution Controls				
2	Name: Van Leer Location: Gilchrist-Thomas Industrial Estate,BLAENAVON,Gwent,NP4 9RL Authority: Torfaen County Borough Council, Department for the Environmental Permit Reference: EPA B14 Dated: 26th April 1994 Process Type: Local Authority Air Pollution Control Description: PG6/14 Film coating processes Status: Authorisation either revoked or cancelled Positional Accuracy: Unknown	NW	714	1	324910 209100
	Air Pollution Controls				
3	Name: Blaenavon Motor Co Location: Abergavenny Road,BLAENAVON,NP4 9 Authority: Torfaen County Borough Council, Department for the Environmental Permit Reference: Pvr/9 Dated: 30th June 2002 Process Type: Local Authority Air Pollution Control Description: PG 1/14 Petrol filling station Status: Application has been authorised and any conditions apply to the operator Positional Accuracy: Manually positioned to the road within the address or location	N	782	1	325150 209260
	Air Pollution Controls				
3	Name: Old Oak Service Station Location: Cae White,Abergavenny Road,BLAENAVON,NP4 9RQ Authority: Torfaen County Borough Council, Department for the Environmental Permit Reference: Pvr/8 Dated: 1st July 2001 Process Type: Local Authority Air Pollution Control Description: PG 1/14 Petrol filling station Status: Application has been authorised and any conditions apply to the operator Positional Accuracy: Manually positioned to the address or location	N	786	1	325120 209260
	Air Pollution Controls				
3	Name: Blaenavon Motor Company Location: Abergavenny Road,BLAENAVON,Gwent,NP4 9RG Authority: Torfaen County Borough Council, Department for the Environmental Permit Reference: NOT GIVEN Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: Part B - General Fuel and Power Process (No Specific Reference) Status: Authorisation either revoked or cancelled Positional Accuracy: Automatically positioned to the address	N	789	1	325170 209270
	Air Pollution Controls				
4	Name: Doncasters Blaenavon Ltd Location: Forgeside,BLAENAVON,Gwent,NP4 9XG Authority: Torfaen County Borough Council, Department for the Environmental Permit Reference: Epa B25 Dated: 24th November 1994 Process Type: Local Authority Air Pollution Control Description: PG 4/1 Processes for the surface treatment of metals Status: Application has been authorised and any conditions apply to the operator Positional Accuracy: Manually positioned to the address or location	W	802	1	324490 208650

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Discharge Consents				
5	Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Blaenavon Trunk Sewer Cso Bridge St,Playground Of Bridge Street,Blaenavon,Torfaen Cbc,Np4 9ba Authority: Environment Agency, Welsh Region Catchment Area: Not Supplied Reference: Ac0108901 Permit Version: 2 Effective Date: 24th January 2004 Issued Date: 23rd January 2004 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: The Afon Lwyd Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	NW	119	2	325220 208600
	Discharge Consents				
5	Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Blaenavon Station Terrace Trunk Sew,Station Terrace Trunk Sewer Ss Authority: Environment Agency, Welsh Region Catchment Area: Not Given Reference: AC0108901 Permit Version: 1 Effective Date: 16th September 1979 Issued Date: 16th September 1979 Revocation Date: 23rd January 2004 Discharge Type: Unspecified Discharge Environment: Freshwater Stream/River Receiving Water: Afon Lwyd Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	NW	134	2	325200 208600
	Discharge Consents				
6	Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Forgeside Cso Iron Bridge Picnic,Iron Bridge Picnic Area,Near Forgeside,Near Blaenavon,Np4 9bl Authority: Environment Agency, Welsh Region Catchment Area: Not Supplied Reference: Ad0015001 Permit Version: 2 Effective Date: 24th January 2004 Issued Date: 23rd January 2004 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: The Afon Lwyd Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	NW	427	2	324930 208740

Map ID	Details		Compass Direction	Estimated Distance From Site	Contact	NGR
	Discharge Consents					
7	Operator:	Dwr Cymru Cyfyngedig	NW	556	2	324880 208880
	Property Type:	Undefined Or Other				
	Location:	Heol-Y-Parc Off Church Rd Blaenavo,Off Church Rd Blaenavon				
	Authority:	Environment Agency, Welsh Region				
	Catchment Area:	Not Supplied				
	Reference:	Ac0128802				
	Permit Version:	1				
	Effective Date:	18th February 1981				
	Issued Date:	18th February 1981				
	Revocation Date:	21st November 1994				
	Discharge Type:	Unspecified				
	Discharge Environment:	Unknown				
	Receiving Water:	Unspecified				
	Status:	Consent expired				
	Positional Accuracy:	Located by supplier to within 10m				
	Discharge Consents					
7	Operator:	Dwr Cymru Cyfyngedig	NW	556	2	324880 208880
	Property Type:	Undefined Or Other				
	Location:	Heol-Y-Parc Off Church Rd Blaenavo,Off Church Rd Blaenavon				
	Authority:	Environment Agency, Welsh Region				
	Catchment Area:	Not Supplied				
	Reference:	Ac0128803				
	Permit Version:	1				
	Effective Date:	18th February 1981				
	Issued Date:	18th February 1981				
	Revocation Date:	21st November 1994				
	Discharge Type:	Unspecified				
	Discharge Environment:	Unknown				
	Receiving Water:	Unspecified				
	Status:	Consent expired				
	Positional Accuracy:	Located by supplier to within 10m				
	Discharge Consents					
8	Operator:	Dwr Cymru Cyfyngedig	NE	563	2	326000 208700
	Property Type:	Water Supply Grid				
	Location:	Blaenavon (No.2)				
	Authority:	Environment Agency, Welsh Region				
	Catchment Area:	Not Supplied				
	Reference:	Am0000601				
	Permit Version:	1				
	Effective Date:	2nd October 1989				
	Issued Date:	2nd October 1989				
	Revocation Date:	14th March 1994				
	Discharge Type:	Unspecified				
	Discharge Environment:	Land/Soakaway				
	Receiving Water:	Soakaway				
	Status:	Consent expired				
	Positional Accuracy:	Located by supplier to within 100m				
	Discharge Consents					
9	Operator:	Ffynonau Duon Mines Ltd	SW	592	2	324820 207930
	Property Type:	Coal Extraction, Surface				
	Location:	Johnson Mine Forgeside Blaenavon				
	Authority:	Environment Agency, Welsh Region				
	Catchment Area:	River Usk (Afon Wysg)				
	Reference:	AN0262701				
	Permit Version:	1				
	Effective Date:	8th February 1996				
	Issued Date:	8th February 1996				
	Revocation Date:	1st May 2002				
	Discharge Type:	Trade Effluent				
	Discharge Environment:	Freshwater Stream/River				
	Receiving Water:	Trib Of Afon Lwyd				
	Status:	Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)				
	Positional Accuracy:	Located by supplier to within 100m				

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Discharge Consents				
10	Operator: Dwr Cymru Cyfyngedig Property Type: Undefined Or Other Location: Heol Y Parc Off Church Road Blaena,Off Church Road Blaenavon Authority: Environment Agency, Welsh Region Catchment Area: Not Supplied Reference: Ac0128801 Permit Version: 1 Effective Date: 18th February 1981 Issued Date: 18th February 1981 Revocation Date: 21st November 1994 Discharge Type: Unspecified Discharge Environment: Unknown Receiving Water: Unspecified Status: Consent expired Positional Accuracy: Located by supplier to within 10m	NW	634	2	324820 208930
	Discharge Consents				
11	Operator: The Coal Authority Property Type: Coal Extraction, Deep Mine - Abandoned Location: Blaenavon Minewater System Gwent,Forge Side,Blaenavon Authority: Environment Agency, Welsh Region Catchment Area: Not Supplied Reference: An0310401 Permit Version: 1 Effective Date: 15th November 2001 Issued Date: 15th November 2001 Revocation Date: Not Supplied Discharge Type: Minewater Discharge Environment: Freshwater Stream/River Receiving Water: Afon Lwyd Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	NW	685	2	324700 208860
	Discharge Consents				
12	Operator: Dwr Cymru Cyfyngedig Property Type: Water Supply Grid Location: Hillside Suction Authority: Environment Agency, Welsh Region Catchment Area: Not Supplied Reference: Am0004801 Permit Version: 1 Effective Date: 2nd October 1989 Issued Date: 2nd October 1989 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge Environment: Land/Soakaway Receiving Water: Soakaway Status: Consent expired Positional Accuracy: Located by supplier to within 100m	N	711	2	325300 209200
	Discharge Consents				
13	Operator: Doncaster Blaenavon Ltd Property Type: Undefined Or Other Location: Blaenavon - Daniel Doncaster & Authority: Environment Agency, Welsh Region Catchment Area: River Usk (Afon Wysg) Reference: Ad0010401 Permit Version: 1 Effective Date: 25th June 1969 Issued Date: 25th June 1969 Revocation Date: 25th September 1992 Discharge Type: Trade Effluent Discharge Environment: Into And/Or Watercourse Receiving Water: Unnamed Tributary Of Avon Lwyd Status: Consent expired Positional Accuracy: Located by supplier to within 10m	W	799	2	324500 208680

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Discharge Consents				
14	Operator: Graig Wen Mining Co Ltd Property Type: Coal Extraction, Deep Mine Location: Winstone Mine High Meadows Forgesid,High Meadows Forgeside Blaenavon Authority: Environment Agency, Welsh Region Catchment Area: River Usk (Afon Wysg) Reference: AN0026102 Permit Version: 2 Effective Date: 9th January 1993 Issued Date: 9th October 1992 Revocation Date: Not Supplied Discharge Type: Minewater Discharge Environment: Freshwater Stream/River Receiving Water: Afon Lwyd Trib. Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	W	896	2	324400 208300
	Discharge Consents				
14	Operator: Graig Wen Mining Co Ltd Property Type: Coal Extraction, Deep Mine Location: Winstone Mine High Meadows Forgesid,High Meadows Forgeside Blaenavon Authority: Environment Agency, Welsh Region Catchment Area: River Usk (Afon Wysg) Reference: An0026102 Permit Version: 1 Effective Date: 9th June 1987 Issued Date: 9th June 1987 Revocation Date: 8th January 1993 Discharge Type: Unspecified Discharge Environment: Freshwater Stream/River Receiving Water: Afon Lwyd Trib. Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	W	896	2	324400 208300
	Discharge Consents				
15	Operator: Daniel Doncaster & Sons Ltd Property Type: Undefined Or Other Location: Blaenavon - Daniel Doncaster & Authority: Environment Agency, Welsh Region Catchment Area: River Usk (Afon Wysg) Reference: Ad0010301 Permit Version: 1 Effective Date: 25th June 1969 Issued Date: 25th June 1969 Revocation Date: 13th April 1995 Discharge Type: Trade Effluent Discharge Environment: Freshwater Stream/River Receiving Water: Afon Lwyd Trib Status: Consent expired Positional Accuracy: Located by supplier to within 10m	NW	962	2	324380 208840
	Discharge Consents				
15	Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Blaenavon-Forge Side Authority: Environment Agency, Welsh Region Catchment Area: Not Supplied Reference: Ad0015001 Permit Version: 1 Effective Date: 23rd March 1976 Issued Date: 23rd March 1976 Revocation Date: 23rd January 2004 Discharge Type: Unspecified Discharge Environment: Freshwater Stream/River Receiving Water: Afon Lwyd Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 10m	NW	983	2	324350 208820

Map ID	Details		Compass Direction	Estimated Distance From Site	Contact	NGR
	Discharge Consents					
16	Operator:	Graig Wen Mining Co Ltd	W	995	2	324300 208300
	Property Type:	Coal Extraction, Deep Mine				
	Location:	Winstone Mine High Meadows Forgesid,High Meadows Forgeside Blaenavon				
	Authority:	Environment Agency, Welsh Region				
	Catchment Area:	River Usk (Afon Wysg)				
	Reference:	AN0026101				
	Permit Version:	1				
	Effective Date:	9th June 1987				
	Issued Date:	9th June 1987				
	Revocation Date:	Not Supplied				
	Discharge Type:	Minewater				
	Discharge Environment:	Freshwater Stream/River				
	Receiving Water:	Afon Lwyd				
	Status:	New Consent, by Application (Water Resources Act 1991, Section 88)				
	Positional Accuracy:	Located by supplier to within 100m				
	Integrated Pollution Controls					
17	Name:	Iep Doncasters Ltd	W	802	2	324490 208650
	Location:	Forgeside,BLAENAVON,Gwent,NP4 9XG				
	Authority:	Environment Agency, Welsh Region				
	Permit Reference:	AM0171				
	Dated:	Not Supplied				
	Process Type:	Withdrawn IPC application				
	Description:	4.3 A (F) Acid processes within the Chemical Industry				
	Status:	Application referred to Local Authority for consideration				
	Positional Accuracy:	Manually positioned to the address or location				
	Pollution Incidents to Controlled Waters					
18	Property Type:	Not Given	NW	0	2	325350 208450
	Location:	Church Road,Blaenavon,Next To Picnic Area				
	Authority:	Environment Agency, Welsh Region				
	Pollutant:	Heavy Fuel Oil				
	Note:	Afon Lwyd				
	Incident Date:	28th January 1998				
	Incident Reference:	35330				
	Catchment Area:	Not Given				
	Receiving Water:	Not Given				
	Cause of Incident:	Unknown				
	Severity of Incident:	Category 3 - Minor Incident				
	Positional Accuracy:	Located by supplier to within 100m				
	Pollution Incidents to Controlled Waters					
18	Property Type:	Not Given	NW	0	2	325350 208450
	Location:	Near Forge Site,Near Industrial Estate At,BLAENAVON				
	Authority:	Environment Agency, Welsh Region				
	Pollutant:	Heavy Fuel Oil				
	Note:	Afon Lwyd				
	Incident Date:	28th January 1998				
	Incident Reference:	35330				
	Catchment Area:	Not Given				
	Receiving Water:	Not Given				
	Cause of Incident:	Unknown				
	Severity of Incident:	Category 3 - Minor Incident				
	Positional Accuracy:	Located by supplier to within 100m				
	Pollution Incidents to Controlled Waters					
19	Property Type:	Water Company Sewage: Sewage Treatment Works	SE	10	2	325510 208250
	Location:	Location Description Not Available				
	Authority:	Environment Agency, Welsh Region				
	Pollutant:	Unknown				
	Note:	Blocked Sewer				
	Incident Date:	21st November 1994				
	Incident Reference:	22153				
	Catchment Area:	Not Given				
	Receiving Water:	Not Given				
	Cause of Incident:	Overflow				
	Severity of Incident:	Category 3 - Minor Incident				
	Positional Accuracy:	Located by supplier to within 100m				

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Pollution Incidents to Controlled Waters				
20	Property Type: Water Company Sewage: Storm Overflow Location: Bleanavon Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Weather Incident Date: 7th December 1994 Incident Reference: 22147 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Severity of Incident: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	NW	21	2	325300 208500
	Pollution Incidents to Controlled Waters				
21	Property Type: Water Company Sewage: Storm Overflow Location: River,Blaenavon And Pontypool Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Weather Incident Date: 4th April 1991 Incident Reference: 26 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Severity of Incident: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	E	26	2	325600 208300
	Pollution Incidents to Controlled Waters				
21	Property Type: Water Company Sewage: Storm Overflow Location: Below Blaenavon,BLAENAVON Authority: Environment Agency, Welsh Region Pollutant: Chemicals - Other Organic Note: Weather Incident Date: 4th April 1991 Incident Reference: 26 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Severity of Incident: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	E	29	2	325600 208300
	Pollution Incidents to Controlled Waters				
21	Property Type: Water Company Sewage: Storm Overflow Location: Pontypool To Blaenavon Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Weather Incident Date: 4th April 1991 Incident Reference: 26 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Severity of Incident: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	E	33	2	325610 208300
	Pollution Incidents to Controlled Waters				
22	Property Type: Not Given Location: Just Below,Blaenafon Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: N Cwm Afon Incident Date: 14th August 1997 Incident Reference: 33533 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Severity of Incident: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	W	45	2	325250 208400

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Pollution Incidents to Controlled Waters				
23	Property Type: Not Given Location: Adjacent Old Railway Line Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 1st June 1991 Incident Reference: 992 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Severity of Incident: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	NE	65	2	325500 208470
	Pollution Incidents to Controlled Waters				
23	Property Type: Not Given Location: Picnic Area,Health Centre Authority: Environment Agency, Welsh Region Pollutant: Stagnant Water Note: Not Supplied Incident Date: 22nd July 1991 Incident Reference: 911 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Severity of Incident: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	NE	92	2	325500 208500
	Pollution Incidents to Controlled Waters				
24	Property Type: Not Given Location: Between Horseshoe Row,And Blaenavon Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Not Supplied Incident Date: 3rd May 1991 Incident Reference: 318 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Severity of Incident: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	E	118	2	325700 208300
	Pollution Incidents to Controlled Waters				
24	Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Miscellaneous - Vehicles Note: Not Supplied Incident Date: 21st July 1996 Incident Reference: 29654 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Severity of Incident: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	E	167	2	325750 208300
	Pollution Incidents to Controlled Waters				
25	Property Type: Waste Handling Facilities Location: Road Prior Authority: Environment Agency, Wales Region Pollutant: Mud/Clay/Soil Note: Blocked Sewer Incident Date: 10th March 1992 Incident Reference: 3239 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Severity of Incident: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	SW	125	2	325210 208200

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Pollution Incidents to Controlled Waters				
25	Property Type: Warehouses Location: 10 Barnfield Terrace,BLAENAVON Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Mechanical Failure Incident Date: 13th October 1991 Incident Reference: 854 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Severity of Incident: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	SW	126	2	325200 208200
	Pollution Incidents to Controlled Waters				
25	Property Type: Other Transport Location: B4246 Blaenavon Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Mechanical Failure Incident Date: 31st March 1992 Incident Reference: 3414 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Severity of Incident: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	SW	129	2	325200 208200
	Pollution Incidents to Controlled Waters				
26	Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Stagnant Water Note: Not Supplied Incident Date: 8th February 1995 Incident Reference: 22654 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Severity of Incident: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	E	197	2	325780 208300
	Pollution Incidents to Controlled Waters				
27	Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 26th March 1991 Incident Reference: 189 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Severity of Incident: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	W	295	2	325000 208300
	Pollution Incidents to Controlled Waters				
28	Property Type: Not Given Location: Below Blaenavon,BLAENAVON Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 5th August 1994 Incident Reference: 21228 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Severity of Incident: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	SE	522	2	326000 208000

Map ID	Details		Compass Direction	Estimated Distance From Site	Contact	NGR
	Pollution Incidents to Controlled Waters					
29	Property Type:	Not Given	NW	749	2	324650 208900
	Location:	Lower Edge Of,Town Blain,Avon By Cattle				
	Authority:	Environment Agency, Welsh Region				
	Pollutant:	Oils - Diesel (Including Agricultural)				
	Note:	Not Supplied				
	Incident Date:	16th April 1995				
	Incident Reference:	23550				
	Catchment Area:	Not Given				
	Receiving Water:	Not Given				
	Cause of Incident:	Leachate				
	Severity of Incident:	Category 3 - Minor Incident				
	Positional Accuracy:	Located by supplier to within 100m				
	Pollution Incidents to Controlled Waters					
30	Property Type:	Domestic/Residential	W	801	2	324500 208200
	Location:	Winstone Mine,Forgeside				
	Authority:	Environment Agency, Welsh Region				
	Pollutant:	Unknown				
	Note:	Weather				
	Incident Date:	24th June 1991				
	Incident Reference:	1176				
	Catchment Area:	Not Given				
	Receiving Water:	Not Given				
	Cause of Incident:	Runoff				
	Severity of Incident:	Category 2 - Significant Incident				
	Positional Accuracy:	Located by supplier to within 100m				
	Pollution Incidents to Controlled Waters					
31	Property Type:	Not Given	NW	901	2	324450 208850
	Location:	Up Stream Of,Cwmavon At,BLAENAVON				
	Authority:	Environment Agency, Welsh Region				
	Pollutant:	Farm Effluent/Slurry				
	Note:	Not Supplied				
	Incident Date:	1st March 1995				
	Incident Reference:	23533				
	Catchment Area:	Not Given				
	Receiving Water:	Not Given				
	Cause of Incident:	Unknown				
	Severity of Incident:	Category 3 - Minor Incident				
	Positional Accuracy:	Located by supplier to within 100m				
	Pollution Incidents to Controlled Waters					
32	Property Type:	Not Given	NW	984	2	324500 209100
	Location:	George Street,Thomas Industrial Estate				
	Authority:	Environment Agency, Welsh Region				
	Pollutant:	Unknown				
	Note:	Not Supplied				
	Incident Date:	10th February 1996				
	Incident Reference:	27503				
	Catchment Area:	Not Given				
	Receiving Water:	Not Given				
	Cause of Incident:	Burst				
	Severity of Incident:	Category 3 - Minor Incident				
	Positional Accuracy:	Located by supplier to within 100m				
	Pollution Incidents to Controlled Waters					
32	Property Type:	Warehouses	NW	987	2	324500 209100
	Location:	Van Leer Co,Gilchrist,Thomas Industrial				
	Authority:	Environment Agency, Welsh Region				
	Pollutant:	Mud/Clay/Soil				
	Note:	Not Supplied				
	Incident Date:	10th February 1996				
	Incident Reference:	27503				
	Catchment Area:	Not Given				
	Receiving Water:	Not Given				
	Cause of Incident:	Burst				
	Severity of Incident:	Category 2 - Significant Incident				
	Positional Accuracy:	Located by supplier to within 100m				

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
33	**Substantiated Pollution Incident Register** Authority: Environment Agency - Welsh Region, South East Area Incident Date: 9th April 2001 Incident Reference: 2007 Water Impact: Category 3 - Minor Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Crude Sewage	NE	22	2	325530 208390
34	**Substantiated Pollution Incident Register** Authority: Environment Agency - Welsh Region, South East Area Incident Date: 30th September 2002 Incident Reference: 111493 Water Impact: Category 3 - Minor Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Organic Chemicals : Paints / Varnishes	E	37	2	325620 208330
35	**Substantiated Pollution Incident Register** Authority: Environment Agency - Welsh Region, South East Area Incident Date: 26th July 2002 Incident Reference: 94528 Water Impact: Category 3 - Minor Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Other Sewage	NW	134	2	325200 208600
36	**Substantiated Pollution Incident Register** Authority: Environment Agency - Welsh Region, South East Area Incident Date: 7th April 2002 Incident Reference: 69466 Water Impact: Category 3 - Minor Incident Air Impact: Category 4 - No Impact Land Impact: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Other Sewage	E	165	2	325720 208420
37	**Substantiated Pollution Incident Register** Authority: Environment Agency - Welsh Region, South East Area Incident Date: 25th September 2001 Incident Reference: 32957 Water Impact: Category 4 - No Impact Air Impact: Category 3 - Minor Incident Land Impact: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Smoke Pollutant: Specific Waste Materials: Tyres	N	231	2	325290 208720
38	**Substantiated Pollution Incident Register** Authority: Environment Agency - Welsh Region, South East Area Incident Date: 16th December 2002 Incident Reference: 126192 Water Impact: Category 3 - Minor Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Crude Sewage	E	308	2	325860 208190

Map ID	Details		Compass Direction	Estimated Distance From Site	Contact	NGR
	Substantiated Pollution Incident Register					
39	Authority:	Environment Agency - Welsh Region, South East Area	E	446	2	326000 208160
	Incident Date:	21st November 2002				
	Incident Reference:	122234				
	Water Impact:	Category 4 - No Impact				
	Air Impact:	Category 4 - No Impact				
	Land Impact:	Category 2 - Significant Incident				
	Positional Accuracy:	Located by supplier to within 10m				
	Pollutant:	General Biodegradable : Other				
	Water Industry Act Referrals					
40	Name:	Torfaen County Borough Council	NE	500	2	325710 208850
	Location:	Blaenavon Leisure Centre,Recreation Road,Middle Coed Cae,BLAENAVON,Gwent,NP4 9JF				
	Authority:	Environment Agency, Welsh Region				
	Permit Reference:	AI1051				
	Dated:	2nd March 1993				
	Process Type:	Permissions or amendments to discharge under the Water Industry Act 1991				
	Description:	Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations				
	Status:	Application received by the EA but is not yet authorised				
	Positional Accuracy:	Manually positioned to the address or location				
	River Quality					
	Name:	Lwyd	NE	0	2	325460 208380
	GQA Grade:	River Quality C				
	Reach:	Lower Blaenavon - Garn-Yr-Erw Trib.				
	Estimated Distance of Reach (km):	3.8				
	Flow Rate:	Flow less than 0.31 cumecs				
	Flow Type:	River				
	Year:	2000				
	River Quality					
	Name:	Lwyd	SE	549	2	326020 207980
	GQA Grade:	River Quality B				
	Reach:	Conf.Nant Ffrwd-Conf.Trib.Lwr Blaenavon				
	Estimated Distance of Reach (km):	4.8				
	Flow Rate:	Flow less than 0.62 cumecs				
	Flow Type:	River				
	Year:	2000				
	River Quality Biology Sampling Points					
41	Name:	Lwyd	E	561	2	326100 208100
	Reach:	Confluence Nant Ffrwd - Confluence Tributary Lower Blaenavon				
	Estimated Distance:	4.80				
	Positional Accuracy:	Located by supplier to within 100m				
	Year:	1990				
	GQA Grade:	River Quality Biology GQA Grade D - Fair				
	Year:	1995				
	GQA Grade:	River Quality Biology GQA Grade C - Fairly Good				
	Year:	2000				
	GQA Grade:	River Quality Biology GQA Grade C - Fairly Good				
	Year:	2002				
	GQA Grade:	River Quality Biology GQA Grade C - Fairly Good				

Map ID	Details		Compass Direction	Estimated Distance From Site	Contact	NGR
	River Quality Chemistry Sampling Points					
42	Name:	Lwyd	NE	19	2	325500 208410
	Reach:	Lower Blaenavon To Garn-Yr-Erw Tributary				
	Estimated Distance:	3.80				
	Objective:	River Ecosystem Class 2: Good Quality				
	Positional Accuracy:	Located by supplier to within 10m				
	Year:	1990				
	GQA Grade:	River Quality Chemistry GQA Grade D - Fair				
	Compliance:	Not Supplied				
	Year:	1993				
	GQA Grade:	River Quality Chemistry GQA Grade C - Fairly Good				
	Compliance:	Marginal				
	Year:	1994				
	GQA Grade:	River Quality Chemistry GQA Grade D - Fair				
	Compliance:	Significant Failure				
	Year:	1995				
	GQA Grade:	River Quality Chemistry GQA Grade D - Fair				
	Compliance:	Significant Failure				
	Year:	1996				
	GQA Grade:	River Quality Chemistry GQA Grade D - Fair				
	Compliance:	Significant Failure				
	Year:	1997				
	GQA Grade:	River Quality Chemistry GQA Grade C - Fairly Good				
	Compliance:	Marginal				
	Year:	1998				
	GQA Grade:	River Quality Chemistry GQA Grade B - Good				
	Compliance:	Compliant				
	Year:	1999				
	GQA Grade:	River Quality Chemistry GQA Grade C - Fairly Good				
	Compliance:	Marginal				
	Year:	2000				
	GQA Grade:	River Quality Chemistry GQA Grade C - Fairly Good				
	Compliance:	Marginal				
	Year:	2001				
	GQA Grade:	River Quality Chemistry GQA Grade C - Fairly Good				
	Compliance:	Marginal				
	Year:	2002				
	GQA Grade:	River Quality Chemistry GQA Grade C - Fairly Good				
	Compliance:	Marginal				
	Water Abstractions					
43	Operator:	Dwr Cymru Cyf	NE	641	2	326100 208700
	Licence Number:	20/56/12/0031				
	Permit Version:	100				
	Location:	Cwmavon Reservoir				
	Authority:	Environment Agency, Welsh Region				
	Abstraction:	Public Water Supply: Potable Water Supply - Direct				
	Abstraction Type:	Water may be abstracted from a single point				
	Source:	Surface				
	Daily Rate (m3):	Not Supplied				
	Yearly Rate (m3):	Not Supplied				
	Details:	Spring At Blaenavon (No.4)				
	Authorised Start:	01 January				
	Authorised End:	31 December				
	Permit Start Date:	30th December 1965				
	Permit End Date:	Not Supplied				
	Positional Accuracy:	Located by supplier to within 100m				

Map ID	Details		Compass Direction	Estimated Distance From Site	Contact	NGR
	Water Abstractions					
44	Operator:	Dwr Cymru Cyf	NE	917	2	326260 208940
	Licence Number:	20/56/12/0031				
	Permit Version:	100				
	Location:	Spring At Blaenavon (No.4)				
	Authority:	Environment Agency, Welsh Region				
	Abstraction:	Public Water Supply: Potable Water Supply - Direct				
	Abstraction Type:	Water may be abstracted from a single point				
	Source:	Surface				
	Daily Rate (m3):	Not Supplied				
	Yearly Rate (m3):	Not Supplied				
	Details:	Spring At Blaenavon (No.2)				
	Authorised Start:	01 January				
	Authorised End:	31 December				
	Permit Start Date:	30th December 1965				
	Permit End Date:	Not Supplied				
	Positional Accuracy:	Located by supplier to within 100m				
	Water Abstractions					
45	Operator:	Dwr Cymru Cyf	NE	919	2	326120 209070
	Licence Number:	20/56/12/0031				
	Permit Version:	100				
	Location:	Spring At Blaenavon (No.5)				
	Authority:	Environment Agency, Welsh Region				
	Abstraction:	Public Water Supply: Potable Water Supply - Direct				
	Abstraction Type:	Water may be abstracted from a single point				
	Source:	Surface				
	Daily Rate (m3):	Not Supplied				
	Yearly Rate (m3):	Not Supplied				
	Details:	Spring At Blaenavon (No.3)				
	Authorised Start:	01 January				
	Authorised End:	31 December				
	Permit Start Date:	30th December 1965				
	Permit End Date:	Not Supplied				
	Positional Accuracy:	Located by supplier to within 100m				
	Water Abstractions					
46	Operator:	Dwr Cymru Cyf	E	985	2	326550 208510
	Licence Number:	20/56/12/0031				
	Permit Version:	100				
	Location:	Spring At Blaenavon (No.3)				
	Authority:	Environment Agency, Welsh Region				
	Abstraction:	Public Water Supply: Potable Water Supply - Direct				
	Abstraction Type:	Water may be abstracted from a single point				
	Source:	Surface				
	Daily Rate (m3):	Not Supplied				
	Yearly Rate (m3):	Not Supplied				
	Details:	Spring At Blaenavon (No.1)				
	Authorised Start:	01 January				
	Authorised End:	31 December				
	Permit Start Date:	30th December 1965				
	Permit End Date:	Not Supplied				
	Positional Accuracy:	Located by supplier to within 100m				
	Water Abstractions					
	Operator:	Dwr Cymru Cyf	NE	1004	2	326000 209270
	Licence Number:	20/56/12/0031				
	Permit Version:	100				
	Location:	Spring At Blaenavon (No.6)				
	Authority:	Environment Agency, Welsh Region				
	Abstraction:	Public Water Supply: Potable Water Supply - Direct				
	Abstraction Type:	Water may be abstracted from a single point				
	Source:	Surface				
	Daily Rate (m3):	Not Supplied				
	Yearly Rate (m3):	Not Supplied				
	Details:	Spring At Blaenavon (No.5)				
	Authorised Start:	01 January				
	Authorised End:	31 December				
	Permit Start Date:	30th December 1965				
	Permit End Date:	Not Supplied				
	Positional Accuracy:	Located by supplier to within 100m				

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Water Abstractions				
	Operator: Dwr Cymru Cyf Licence Number: 20/56/12/0082 Permit Version: 100 Location: Tunnel At Cwmavon Authority: Environment Agency, Welsh Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Licenced from 01-Jan to 31-Dec Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th September 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	SE	1038	2	326440 207730
	Water Abstractions				
	Operator: Dwr Cymru Cyf Licence Number: 20/56/12/0046 Permit Version: 100 Location: Spring (A) At Cwmavon Authority: Environment Agency, Welsh Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Tunnel Catchpit Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th September 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	SE	1071	2	326520 207800
	Water Abstractions				
	Operator: Dwr Cymru Cyf Licence Number: 20/56/12/0031 Permit Version: 100 Location: Spring At Blaenavon (No.2) Authority: Environment Agency, Welsh Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Licenced from 01-Jan to 31-Dec Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 30th December 1965 Permit End Date: Not Supplied Positional Accuracy: Approximate location provided by supplier	E	1121	2	326690 208500
	Water Abstractions				
	Operator: Dwr Cymru Cyf Licence Number: 20/56/12/0082 Permit Version: 100 Location: Borehole At Cwmavon Authority: Environment Agency, Welsh Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Licenced from 01-Jan to 31-Dec Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th September 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	SE	1152	2	326530 207660

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Water Abstractions				
	Operator: Dwr Cymru Cyf Licence Number: 20/56/12/0031 Permit Version: 100 Location: Spring At Blaenavon (No.1) Authority: Environment Agency, Welsh Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Spring At Blaenavon (No.7) Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 30th December 1965 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	W	1169	2	324110 208410
	Water Abstractions				
	Operator: Dwr Cymru Cyf Licence Number: 20/56/12/0046 Permit Version: 100 Location: Spring (B) At Cwmavon Authority: Environment Agency, Welsh Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Spring At Cwmavon Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th September 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	SE	1404	2	326730 207510
	Water Abstractions				
	Operator: Dwr Cymru Cyf Licence Number: 20/56/12/0031 Permit Version: 100 Location: Spring At Blaenavon (No.7) Authority: Environment Agency, Welsh Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Spring At Blaenavon (No.6) Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 30th December 1965 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	N	1548	2	325540 210020
	Water Abstractions				
	Operator: Dwr Cymru Cyf Licence Number: 20/56/12/0046 Permit Version: 100 Location: Spring (C) At Cwmavon Authority: Environment Agency, Welsh Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Spring At Cwmavon Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th September 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	SE	1629	2	326860 207300

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Water Abstractions				
	Operator: Dwr Cymru Cyf Licence Number: 20/56/12/0046 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, Welsh Region Abstraction: Public Water Supply Abstraction Type: Not Supplied Source: Spring Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Spring At Cwmavon Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	SE	1752	2	326930 207190
	Water Abstractions				
	Operator: Dwr Cymru Cyf Licence Number: 20/56/12/0046 Permit Version: 100 Location: Spring (D) At Cwmavon Authority: Environment Agency, Welsh Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Cwmavan Reservoir Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th September 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	SE	1755	2	326930 207190
	Water Abstractions				
	Operator: Dwr Cymru Cyf Licence Number: 20/56/12/0046 Permit Version: 100 Location: Spring (E) At Cwmavon Authority: Environment Agency, Welsh Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Artesian Well Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th September 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	SE	1780	2	326890 207100
	Water Abstractions				
	Operator: Dwr Cymru Cyf Licence Number: 20/56/12/0046 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, Welsh Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 2273 Yearly Rate (m3): 681900 Details: Spring At Cwmavon Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	SE	1780	2	326890 207100

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Water Abstractions				
	Operator: Doncasters Blaenavon Limited Licence Number: 20/56/12/0027 Permit Version: 100 Location: Coity & Forge Ponds To Works Authority: Environment Agency, Welsh Region Abstraction: Metal: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Coity &Forge Ponds To Works Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 15th December 1965 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	W	1868	2	323450 208880
	Groundwater Vulnerability				
	Geological Classification: Major Aquifer (Highly permeable) - These are highly permeable formations usually with a known or probable presence of significant fracturing. They may be highly productive and able to support large abstractions for public water supply and other purposes Soil Classification: Soils of High Leaching Potential (H3)- Coarse textured or moderately shallow soils which readily transmit non-absorbed pollutants and liquid discharges but which have some ability to attenuate absorbed pollutants because of their large clay or organic matter contents Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	-	0	2	325430 208340
	Groundwater Vulnerability				
	Geological Classification: Minor Aquifer (Variably permeable) - These can be fractured or potentially fractured rocks, which do not have a high primary permeability, or other formations of variable permeability including unconsolidated deposits. Although not producing large quantities of water for abstraction, they are important for local supplies and in supplying base flow to rivers Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	W	0	2	325300 208300
	Groundwater Vulnerability				
	Geological Classification: Minor Aquifer (Variably permeable) - These can be fractured or potentially fractured rocks, which do not have a high primary permeability, or other formations of variable permeability including unconsolidated deposits. Although not producing large quantities of water for abstraction, they are important for local supplies and in supplying base flow to rivers Soil Classification: Soils of High Leaching Potential (H3)- Coarse textured or moderately shallow soils which readily transmit non-absorbed pollutants and liquid discharges but which have some ability to attenuate absorbed pollutants because of their large clay or organic matter contents Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	SW	0	2	325360 208300
	Drift Deposits				
	Drift Deposit: Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Map Sheet: Sheet 36 Mid Glamorgan Scale: 1:100,000	-	0	2	325430 208340
	Fluvial Indicative Floodplains				
	Type: Fluvial Indicative Flood Zone Source: Environment Agency, Head Office	E	0	2	325530 208340
	Fluvial Indicative Floodplains				
	Type: Fluvial Indicative Flood Zone Source: Environment Agency, Head Office	E	14	2	325540 208370
	Fluvial Indicative Floodplains				
	Type: Fluvial Indicative Flood Zone Source: Environment Agency, Head Office	NW	35	2	325310 208530

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Fluvial Indicative Floodplains				
	Type: Fluvial Indicative Flood Zone Source: Environment Agency, Head Office	N	43	2	325390 208490
	Fluvial Indicative Floodplains				
	Type: Fluvial Indicative Flood Zone Source: Environment Agency, Head Office	NW	80	2	325250 208560
	Tidal Indicative Floodplains				
	Description None	-	-	-	-
	River Flood Data (Scotland)				
	Description None	-	-	-	-

Map ID	Details		Compass Direction	Estimated Distance From Site	Contact	NGR
	BGS Recorded Landfill Sites					
54	Site Name:	UDC Tip	NW	818	-	324890 209210
	Location:	Garn Road,BLAENARON,Monmouthshire				
	Authority:	British Geological Survey, Information Services Group				
	Ground Water:	Information not available				
	Surface Water:	Information not available				
	Geology:	N/A				
	Positional Accuracy:	Positioned by the supplier				
	Boundary Accuracy:	Moderate				
	Local Authority Landfill Coverage					
	Name:	Torfaen County Borough Council - Has supplied landfill data	-	0	1	325430 208340

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
55	**BGS Boreholes** BGS Reference: So20ne17 Drilled Length (m): 3.35 Borehole Name: Bridge Street 5	N	18	3	325410 208460
55	**BGS Boreholes** BGS Reference: So20ne18 Drilled Length (m): 3.28 Borehole Name: Bridge Street 6	N	37	3	325430 208470
55	**BGS Boreholes** BGS Reference: So20ne19 Drilled Length (m): 6.1 Borehole Name: Bridge Street 7	N	46	3	325450 208470
56	**BGS Boreholes** BGS Reference: So20ne20 Drilled Length (m): 5.69 Borehole Name: Bridge Street 8	N	22	3	325460 208440
57	**BGS Boreholes** BGS Reference: So20ne15 Drilled Length (m): 5.79 Borehole Name: Bridge Street 3	NW	50	3	325280 208540
57	**BGS Boreholes** BGS Reference: So20ne14 Drilled Length (m): 5.49 Borehole Name: Bridge Street 2	NW	62	3	325260 208550
57	**BGS Boreholes** BGS Reference: So20ne13 Drilled Length (m): 3.96 Borehole Name: Bridge Street 1	NW	79	3	325240 208560
57	**BGS Boreholes** BGS Reference: So20ne16 Drilled Length (m): 6.1 Borehole Name: Bridge Street 4	NW	84	3	325300 208570
57	**BGS Boreholes** BGS Reference: So20ne26 Drilled Length (m): 2.59 Borehole Name: Bladon Road, Housing Pit. D	NW	90	3	325320 208570
58	**BGS Boreholes** BGS Reference: So20ne29 Drilled Length (m): 2.74 Borehole Name: Bladon Road, Housing Hole. 1	N	63	3	325370 208510
58	**BGS Boreholes** BGS Reference: So20ne25 Drilled Length (m): 2.29 Borehole Name: Bladon Road, Housing Pit. C	NW	69	3	325330 208540
58	**BGS Boreholes** BGS Reference: So20ne23 Drilled Length (m): 2.24 Borehole Name: Bladon Road, Housing Pit. A	N	72	3	325390 208520
58	**BGS Boreholes** BGS Reference: So20ne24 Drilled Length (m): 1.37 Borehole Name: Bladon Road, Housing Pit. B	N	82	3	325360 208540
58	**BGS Boreholes** BGS Reference: So20ne31 Drilled Length (m): 2.44 Borehole Name: Bladon Road, Housing Hole. 3	N	82	3	325410 208530
58	**BGS Boreholes** BGS Reference: So20ne32 Drilled Length (m): 2.74 Borehole Name: Bladon Road, Housing Hole. 4	N	101	3	325360 208560

Map ID	Details		Compass Direction	Estimated Distance From Site	Contact	NGR
	BGS Boreholes					
58	BGS Reference: Drilled Length (m): Borehole Name:	So20ne28 3.05 Bladon Road, Housing Pit. F	N	103	3	325400 208550
	BGS Boreholes					
59	BGS Reference: Drilled Length (m): Borehole Name:	So20ne81 2.1 Forgeside, Blaenavon Tp5	W	97	3	325200 208270
	BGS Boreholes					
59	BGS Reference: Drilled Length (m): Borehole Name:	So20ne95 30 Forgeside, Blaenavon Dh3a	W	116	3	325180 208290
	BGS Boreholes					
59	BGS Reference: Drilled Length (m): Borehole Name:	So20ne93 4.8 Forgeside, Blaenavon Dh3	W	126	3	325170 208290
	BGS Boreholes					
59	BGS Reference: Drilled Length (m): Borehole Name:	So20ne83 2.4 Forgeside, Blaenavon Tp7	W	140	3	325160 208250
	BGS Boreholes					
60	BGS Reference: Drilled Length (m): Borehole Name:	So20ne27 2.44 Bladon Road, Housing Pit. E	N	123	3	325360 208580
	BGS Boreholes					
60	BGS Reference: Drilled Length (m): Borehole Name:	So20ne30 2.44 Bladon Road, Housing Hole. 2	N	131	3	325390 208580
	BGS Boreholes					
61	BGS Reference: Drilled Length (m): Borehole Name:	So20ne12 7.62 Corn Street, 1,2,3, South	NW	124	3	325220 208600
	BGS Boreholes					
61	BGS Reference: Drilled Length (m): Borehole Name:	So20ne11 6.1 Corn Street, 1,2,3, North	NW	124	3	325220 208600
	BGS Boreholes					
62	BGS Reference: Drilled Length (m): Borehole Name:	So20ne89 10 Forgeside, Blaenavon 3	W	126	3	325170 208320
	BGS Boreholes					
62	BGS Reference: Drilled Length (m): Borehole Name:	So20ne88 12.95 Forgeside, Blaenavon 2	W	157	3	325140 208280
	BGS Boreholes					
63	BGS Reference: Drilled Length (m): Borehole Name:	So20ne34 2.74 Bladon Road, Housing 6	NW	132	3	325290 208620
	BGS Boreholes					
64	BGS Reference: Drilled Length (m): Borehole Name:	So20ne94 29.9 Forgeside, Blaenavon Dh4	W	182	3	325120 208240
	BGS Boreholes					
64	BGS Reference: Drilled Length (m): Borehole Name:	So20ne82 2.4 Forgeside, Blaenavon Tp6	W	198	3	325100 208260
	BGS Boreholes					
64	BGS Reference: Drilled Length (m): Borehole Name:	So20ne84 2 Forgeside, Blaenavon Tp8	W	200	3	325110 208210

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	BGS Boreholes				
64	BGS Reference: So20ne90 Drilled Length (m): 10 Borehole Name: Forgeside, Blaenavon 4	W	207	3	325090 208270
	BGS Boreholes				
65	BGS Reference: So20ne86 Drilled Length (m): 4.6 Borehole Name: Forgeside, Blaenavon Tp10	W	196	3	325100 208310
	BGS Boreholes				
65	BGS Reference: So20ne87 Drilled Length (m): 7.6 Borehole Name: Forgeside, Blaenavon 1	W	196	3	325100 208340
	BGS Boreholes				
65	BGS Reference: So20ne80 Drilled Length (m): 1 Borehole Name: Forgeside, Blaenavon Tp4	W	206	3	325090 208340
	BGS Boreholes				
65	BGS Reference: So20ne85 Drilled Length (m): 3.2 Borehole Name: Forgeside, Blaenavon Tp9	W	216	3	325080 208290
	BGS Boreholes				
65	BGS Reference: So20ne78 Drilled Length (m): 2.8 Borehole Name: Forgeside, Blaenavon Tp2	W	236	3	325060 208330
	BGS Boreholes				
66	BGS Reference: So20ne37 Drilled Length (m): 12 Borehole Name: Barker St, Blaenavon. Box Site (A-P)	N	212	3	325300 208700
	BGS Boreholes				
66	BGS Reference: So20ne72 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 20	N	230	3	325280 208720
	BGS Boreholes				
66	BGS Reference: So20ne75 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 23	N	230	3	325280 208720
	BGS Boreholes				
66	BGS Reference: So20ne66 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 14	N	231	3	325290 208720
	BGS Boreholes				
66	BGS Reference: So20ne56 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 4	N	233	3	325310 208720
	BGS Boreholes				
66	BGS Reference: So20ne65 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 13	N	233	3	325310 208720
	BGS Boreholes				
66	BGS Reference: So20ne35 Drilled Length (m): 12 Borehole Name: Barker St, Blaenavon. R1	N	234	3	325320 208720
	BGS Boreholes				
66	BGS Reference: So20ne54 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 2	N	234	3	325320 208720
	BGS Boreholes				
66	BGS Reference: So20ne55 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 3	N	234	3	325320 208720

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
66	**BGS Boreholes** BGS Reference: So20ne71 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 19	N	240	3	325280 208730
66	**BGS Boreholes** BGS Reference: So20ne76 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 24	N	240	3	325280 208730
66	**BGS Boreholes** BGS Reference: So20ne36 Drilled Length (m): 12 Borehole Name: Barker St, Blaenavon. R3	N	241	3	325300 208730
66	**BGS Boreholes** BGS Reference: So20ne64 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 12	N	241	3	325290 208730
66	**BGS Boreholes** BGS Reference: So20ne74 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 22	N	241	3	325290 208730
66	**BGS Boreholes** BGS Reference: So20ne57 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 5	N	243	3	325310 208730
66	**BGS Boreholes** BGS Reference: So20ne61 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 9	N	243	3	325310 208730
66	**BGS Boreholes** BGS Reference: So20ne63 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 11	N	243	3	325310 208730
66	**BGS Boreholes** BGS Reference: So20ne59 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 7	N	244	3	325320 208730
66	**BGS Boreholes** BGS Reference: So20ne60 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 8	N	244	3	325320 208730
66	**BGS Boreholes** BGS Reference: So20ne53 Drilled Length (m): 11 Borehole Name: Baker St Blaenavon 1	N	246	3	325330 208730
66	**BGS Boreholes** BGS Reference: So20ne70 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 18	N	250	3	325280 208740
66	**BGS Boreholes** BGS Reference: So20ne69 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 17	N	251	3	325290 208740
66	**BGS Boreholes** BGS Reference: So20ne73 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 21	N	251	3	325290 208740
66	**BGS Boreholes** BGS Reference: So20ne62 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 10	N	252	3	325310 208740

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	BGS Boreholes				
66	BGS Reference: So20ne58 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 6	N	254	3	325320 208740
	BGS Boreholes				
66	BGS Reference: So20ne68 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 16	N	261	3	325300 208750
	BGS Boreholes				
67	BGS Reference: So20ne79 Drilled Length (m): 2.2 Borehole Name: Forgeside, Blaenavon Tp3	W	235	3	325060 208370
	BGS Boreholes				
67	BGS Reference: So20ne92 Drilled Length (m): 30 Borehole Name: Forgeside, Blaenavon Dh2	W	255	3	325040 208360
	BGS Boreholes				
68	BGS Reference: So20ne77 Drilled Length (m): 3.1 Borehole Name: Forgeside, Blaenavon Tp1	W	240	3	325060 208240
	BGS Boreholes				
68	BGS Reference: So20ne7 Drilled Length (m): 92.92 Borehole Name: Forge Side	W	256	3	325040 208280
	BGS Boreholes				
68	BGS Reference: So20ne99 Drilled Length (m): 92.92 Borehole Name: Forgeside Borehole	W	256	3	325040 208280
	BGS Boreholes				
69	BGS Reference: So20ne91 Drilled Length (m): 27 Borehole Name: Forgeside, Blaenavon Dh1	W	256	3	325040 208310
	BGS Boreholes				
70	BGS Reference: So20ne67 Drilled Length (m): 10 Borehole Name: Baker St Blaenavon 15	N	261	3	325290 208750
	BGS Boreholes				
71	BGS Reference: So20ne38 Drilled Length (m): 1.5 Borehole Name: Llanover Road, Blaenavon. 1	NE	425	3	325790 208700
	BGS Boreholes				
71	BGS Reference: So20ne39 Drilled Length (m): 1.5 Borehole Name: Llanover Road, Blaenavon. 2	NE	425	3	325790 208700
	BGS Boreholes				
72	BGS Reference: So20ne50 Drilled Length (m): 1.5 Borehole Name: 32-38 Broad St. Blaenafon	N	460	3	325270 208950
	BGS Boreholes				
72	BGS Reference: So20ne51 Drilled Length (m): 1.2 Borehole Name: 32-38 Broad St. Blaenafon	N	460	3	325270 208950
	BGS Boreholes				
72	BGS Reference: So20ne52 Drilled Length (m): 5.2 Borehole Name: 32-38 Broad St. Blaenafon	N	460	3	325270 208950
	BGS Boreholes				
73	BGS Reference: So20nw33 Drilled Length (m): 9.58 Borehole Name: Heol-Y-Fare, No.6	NW	550	3	324860 208850

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	BGS Boreholes				
74	BGS Reference: So20nw32 Drilled Length (m): 8.99 Borehole Name: Heol-Y-Fare, No.5	NW	608	3	324810 208880
	BGS Boreholes				
74	BGS Reference: So20nw30 Drilled Length (m): 11.28 Borehole Name: Heol-Y-Fare, No.3	NW	627	3	324820 208920
	BGS Boreholes				
74	BGS Reference: So20nw31 Drilled Length (m): 12.65 Borehole Name: Heol-Y-Fare, No.4	NW	652	3	324770 208900
	BGS Boreholes				
75	BGS Reference: So20nw123 Drilled Length (m): 6 Borehole Name: Heol-Y-Parc Blaenavon Bh 1	NW	620	3	324850 208940
	BGS Boreholes				
75	BGS Reference: So20nw124 Drilled Length (m): 5.5 Borehole Name: Heol-Y-Parc Blaenavon Bh 2	NW	620	3	324850 208940
	BGS Boreholes				
75	BGS Reference: So20nw125 Drilled Length (m): 18.5 Borehole Name: Heol-Y-Parc Blaenavon Bh 2r	NW	620	3	324850 208940
	BGS Boreholes				
75	BGS Reference: So20nw126 Drilled Length (m): 6 Borehole Name: Heol-Y-Parc Blaenavon Bh 3	NW	620	3	324850 208940
	BGS Boreholes				
75	BGS Reference: So20nw128 Drilled Length (m): 4.5 Borehole Name: Heol-Y-Parc Blaenavon Bh 5	NW	620	3	324850 208940
	BGS Boreholes				
75	BGS Reference: So20nw129 Drilled Length (m): 4.5 Borehole Name: Heol-Y-Parc Blaenavon Bh 6	NW	620	3	324850 208940
	BGS Boreholes				
75	BGS Reference: So20nw130 Drilled Length (m): 18 Borehole Name: Heol-Y-Parc Blaenavon Bh7/7r	NW	620	3	324850 208940
	BGS Boreholes				
75	BGS Reference: So20nw131 Drilled Length (m): 5 Borehole Name: Heol-Y-Parc Blaenavon Bh 8	NW	620	3	324850 208940
	BGS Boreholes				
75	BGS Reference: So20nw132 Drilled Length (m): 16 Borehole Name: Heol-Y-Parc Blaenavon Bh9/9r	NW	620	3	324850 208940
	BGS Boreholes				
75	BGS Reference: So20nw134 Drilled Length (m): 5.5 Borehole Name: Heol-Y-Parc Blaenavon Bh11/11a	NW	620	3	324850 208940
	BGS Boreholes				
75	BGS Reference: So20nw135 Drilled Length (m): 19.4 Borehole Name: Heol-Y-Parc Blaen'N Bh12/12a/R	NW	620	3	324850 208940
	BGS Boreholes				
75	BGS Reference: So20nw127 Drilled Length (m): 19.5 Borehole Name: Heol-Y-Parc Blaenavon Bh4/4r	NW	620	3	324850 208940

Map ID	Details		Compass Direction	Estimated Distance From Site	Contact	NGR
	BGS Boreholes					
75	BGS Reference: Drilled Length (m): Borehole Name:	So20nw133 21.8 Heol-Y-Parc Blaenavon Bh10/10r	NW	620	3	324850 208940
	BGS Boreholes					
75	BGS Reference: Drilled Length (m): Borehole Name:	So20nw29 9.5 Heol-Y-Fare, No.2	NW	621	3	324870 208960
	BGS Boreholes					
76	BGS Reference: Drilled Length (m): Borehole Name:	So20nw28 9.14 Heol-Y-Fare, No.1	NW	632	3	324890 208990
	BGS Boreholes					
77	BGS Reference: Drilled Length (m): Borehole Name:	So20nw60 20 Blaenavon Industrial Museum. No.D1	NW	864	3	324830 209230
	BGS Boreholes					
78	BGS Reference: Drilled Length (m): Borehole Name:	So20ne8 14.94 Blaenavon A4	N	904	3	325030 209360
	BGS Boreholes					
78	BGS Reference: Drilled Length (m): Borehole Name:	So20nw61 25.5 Blaenavon Industrial Museum. No.D3	NW	916	3	324990 209360
	BGS Boreholes					
79	BGS Reference: Drilled Length (m): Borehole Name:	So20ne10 13.38 Blaenavon A6	N	939	3	325090 209410
	BGS Boreholes					
80	BGS Reference: Drilled Length (m): Borehole Name:	So20ne22 30 Blaenavbon Industrial Museum D4	N	958	3	325010 209410
	BGS Boreholes					
80	BGS Reference: Drilled Length (m): Borehole Name:	So20ne21 30 Blaenavbon Industrial Museum C4	N	987	3	325010 209440
	BGS Boreholes					
81	BGS Reference: Drilled Length (m): Borehole Name:	So20nw58 8.5 Blaenavon Industrial Museum. No.C1	NW	969	3	324760 209310
	BGS Recorded Mineral Sites					
82	Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Johnson Mine Blaenavon,Torfaen British Geological Survey, Information Services Group 4374 Not Given Active Ffynonau Duon Mines Ltd Pentwyn,Fochriw,Torfaen,Bargoed,CF8 9NR Carboniferous Coal Measures Coal - Deep Unknown	SW	654	4	324840 207810

Map ID	Details		Compass Direction	Estimated Distance From Site	Contact	NGR
	BGS Recorded Mineral Sites					
83	Site Name:	Winstone Colliery	W	781	4	324520 208190
	Location:	Blaenavon,Torfaen				
	Source:	British Geological Survey, Information Services Group				
	Reference:	4377				
	Type:	Not Given				
	Status:	Active				
	Operator:	Graig Wen Mining Company Ltd				
	Operator Location:	Tynewydd,Heolgerrig,Torfaen,Merthyr Tydfil,CF48 1TW				
	Periodic Type:	Carboniferous				
	Geology:	Coal Measures				
	Commodity:	Coal - Deep				
	Positional Accuracy:	Unknown				
	BGS 1:625,000 Solid Geology					
	Description:	Namurian (Millstone Grit Series)	-	0	4	325430 208340
	Coal Mining Affected Areas					
	Description:	In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	-	0	5	325430 208340
	Shallow Mining Hazards					
	Risk:	Low-Moderate	SW	61	4	325300 208170
	Source:	British Geological Survey, Information Services Group				
	Compressible Ground Subsidence Hazards					
	Risk:	Moderate-High	NW	0	4	325290 208480
	Source:	British Geological Survey, Information Services Group				
	Compressible Ground Subsidence Hazards					
	Risk:	Moderate-High	N	0	4	325440 208450
	Source:	British Geological Survey, Information Services Group				
	Compressible Ground Subsidence Hazards					
	Risk:	Moderate-High	NE	0	4	325510 208410
	Source:	British Geological Survey, Information Services Group				
	Compressible Ground Subsidence Hazards					
	Risk:	Moderate-High	N	39	4	325400 208530
	Source:	British Geological Survey, Information Services Group				
	Compressible Ground Subsidence Hazards					
	Risk:	Moderate-High	N	87	4	325400 208530
	Source:	British Geological Survey, Information Services Group				
	Compressible Ground Subsidence Hazards					
	Risk:	Moderate-High	NW	128	4	325200 208590
	Source:	British Geological Survey, Information Services Group				
	Ground Dissolution Subsidence Hazards					
	Risk:	Low	-	0	4	325430 208340
	Source:	British Geological Survey, Information Services Group				
	Gulls And Cambering Subsidence Hazards					
	Description	No Hazard	-	-	-	-
	Landslip Subsidence Hazards					
	Risk:	Low-Moderate	SW	0	4	325400 208290
	Source:	British Geological Survey, Information Services Group				
	Swelling Clay Subsidence Hazards					
	Description	No Hazard	-	-	-	-
	Mining Instability					
	Mining Evidence:	Inconclusive Coal Mining	-	0	-	325430 208340
	Source:	Ove Arup & Partners				
	Boundary Quality:	As Supplied				

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Radon Affected Areas				
	Description: Less than 1% of homes are above the Action Level Source: National Radiological Protection Board	-	0	6	325430 208340
	Radon Protection Measures				
	Type: Full radon protective measures should be installed Source: British Geological Survey, Information Services Group	-	0	4	325430 208340

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Contemporary Trade Directory Entries				
84	Name: Manor Building Services Location: 41,Cwmavon Road,Blaenavon,Pontypool,Gwent,NP4 9LF Classification: Damp & Dry Rot Control Status: Active Positional Accuracy: Automatically positioned to the address	E	158	-	325710 208420
	Contemporary Trade Directory Entries				
85	Name: Flooks Haulage Location: 1,Cwmavon Road,Blaenavon,Pontypool,Gwent,NP4 9LD Classification: Road Haulage Services Status: Active Positional Accuracy: Automatically positioned to the address	N	175	-	325470 208600
	Contemporary Trade Directory Entries				
86	Name: Torfaen Damp Proofing Co Location: 20,Old James Street,Blaenavon,Pontypool,Gwent,NP4 9EL Classification: Damp & Dry Rot Control Status: Active Positional Accuracy: Automatically positioned to the address	N	268	-	325430 208710
	Contemporary Trade Directory Entries				
87	Name: V J Walters Location: Market Street,Blaenavon,Pontypool,Gwent,NP4 9ET Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	N	307	-	325330 208790
	Contemporary Trade Directory Entries				
88	Name: Blaenavon Launderettes Location: 33,Lower Hill Street,Blaenavon,Pontypool,Gwent,NP4 9EP Classification: Laundries & Launderettes Status: Inactive Positional Accuracy: Automatically positioned to the address	N	441	-	325460 208890
	Contemporary Trade Directory Entries				
89	Name: Marshall & Hicks Location: 43,High Street,Blaenavon,Pontypool,Gwent,NP4 9PZ Classification: Printers Status: Active Positional Accuracy: Automatically positioned to the address	N	463	-	325240 208950
	Contemporary Trade Directory Entries				
90	Name: Belle Vue Garage Location: Queen Street,Blaenavon,Pontypool,Gwent,NP4 9NG Classification: Car Breakdown & Recovery Services Status: Active Positional Accuracy: Automatically positioned to the address	N	539	-	325380 209020
	Contemporary Trade Directory Entries				
91	Name: Blaenavon Health Care Unit Location: Church Rd,Blaenavon,Gwent,NP4 9AF Classification: Hospitals Status: Active Positional Accuracy: Manually positioned to the road within the address or location	NW	587	-	324920 208960
	Contemporary Trade Directory Entries				
92	Name: Ark International Location: Forge Side Factory,Blaenavon,Gwent,NP4 9XH Classification: Clothing & Fabrics - Manufacturers Status: Active Positional Accuracy: Manually positioned within the geographical locality	NE	592	-	325730 208950

Map ID	Details		Compass Direction	Estimated Distance From Site	Contact	NGR
	Contemporary Trade Directory Entries					
93	Name:	Marine Technologies Ltd	W	671	-	324610 208520
	Location:	The School,Forge Rd,Forge Side/Blaenavon,Pontypool,Gwent,NP4 9DD				
	Classification:	Boatbuilders & Repairers				
	Status:	Inactive				
	Positional Accuracy:	Manually positioned to the road within the address or location				
	Contemporary Trade Directory Entries					
93	Name:	Marine Technologies Ltd	W	671	-	324610 208520
	Location:	The School,Forge Rd,Forge Side/Blaenavon,Pontypool,Gwent,NP4 9DD				
	Classification:	Aluminium Fabricators				
	Status:	Active				
	Positional Accuracy:	Manually positioned to the road within the address or location				
	Contemporary Trade Directory Entries					
94	Name:	Old Oak Service Station	N	723	-	325110 209190
	Location:	Cae White,North St,Blaenavon,Gwent,NP4 9RQ				
	Classification:	Petrol Filling Stations				
	Status:	Active				
	Positional Accuracy:	Manually positioned to the road within the address or location				
	Contemporary Trade Directory Entries					
94	Name:	S C Morgan	N	751	-	325090 209220
	Location:	Cae White,North St,Blaenavon,Gwent,NP4 9RQ				
	Classification:	Garage Services				
	Status:	Active				
	Positional Accuracy:	Manually positioned to the address or location				
	Contemporary Trade Directory Entries					
95	Name:	G O S Engineering Ltd	N	757	-	325160 209240
	Location:	Abergavenny Road,Blaenavon,Pontypool,Gwent,NP4 9RG				
	Classification:	Engineers - General				
	Status:	Active				
	Positional Accuracy:	Automatically positioned to the address				
	Contemporary Trade Directory Entries					
95	Name:	M & M Autos	N	781	-	325150 209260
	Location:	Abergavenny Rd,Blaenavon,Blaenavon,Gwent,NP4 9RG				
	Classification:	Garage Services				
	Status:	Inactive				
	Positional Accuracy:	Manually positioned to the road within the address or location				
	Contemporary Trade Directory Entries					
95	Name:	Blaenavon Service Station	N	789	-	325170 209270
	Location:	Abergavenny Road,Blaenavon,Pontypool,Gwent,NP4 9RG				
	Classification:	Petrol Filling Stations				
	Status:	Active				
	Positional Accuracy:	Automatically positioned to the address				
	Contemporary Trade Directory Entries					
96	Name:	Ffynonau-Duon Mines Ltd	W	847	-	324430 208520
	Location:	Blaentillery Mine,Coity Mountain,Forge Side,Blaenavon,Gwent,NP4 9DT				
	Classification:	Coal Mining				
	Status:	Active				
	Positional Accuracy:	Manually positioned within the geographical locality				
	Contemporary Trade Directory Entries					
97	Name:	Prole	N	865	-	325240 209350
	Location:	St. James House,Abergavenny Road,Blaenavon,Pontypool,Gwent,NP4 9RG				
	Classification:	Garage Services				
	Status:	Inactive				
	Positional Accuracy:	Automatically positioned to the address				

Map ID	Details		Compass Direction	Estimated Distance From Site	Contact	NGR
	Contemporary Trade Directory Entries					
98	Name:	Mech Air (South Wales) Ltd	NW	888	-	324660 209130
	Location:	16a-16b,Unit,Gilchrist Thomas Industrial Estate,Blaenavon,Pontypool,Gwent,NP4 9RL				
	Classification:	Air Compressors				
	Status:	Inactive				
	Positional Accuracy:	Automatically positioned to the address				
	Contemporary Trade Directory Entries					
99	Name:	All Dimensions Ltd	NW	907	-	324640 209140
	Location:	Unit 16C,Gilchrist Thomas Industrial Estate,Blaenavon,Pontypool,Gwent,NP4 9RL				
	Classification:	Scaffolding & Work Platforms				
	Status:	Inactive				
	Positional Accuracy:	Automatically positioned to the address				
	Contemporary Trade Directory Entries					
99	Name:	On Line Cad	NW	928	-	324610 209130
	Location:	Unit 28,Gilchrist Thomas Ind Est,Blaenavon,Pontypool,Gwent,NP4 9RL				
	Classification:	Architectural Technologists				
	Status:	Active				
	Positional Accuracy:	Manually positioned within the geographical locality				
	Contemporary Trade Directory Entries					
99	Name:	Biozyme Laboratories Ltd	NW	964	-	324570 209140
	Location:	Unit 6 & 15,Gilchrist Thomas Industrial Estate,Blaenavon,Pontypool,Gwent,NP4 9RL				
	Classification:	Chemicals & Allied Products				
	Status:	Active				
	Positional Accuracy:	Automatically positioned to the address				
	Contemporary Trade Directory Entries					
100	Name:	Aladin	N	911	-	325350 209400
	Location:	31,Rifle Green,Blaenavon,Pontypool,Gwent,NP4 9QN				
	Classification:	Carpet, Curtain & Upholstery Cleaners				
	Status:	Active				
	Positional Accuracy:	Automatically positioned to the address				
	Contemporary Trade Directory Entries					
101	Name:	Gilchrist Fabrications	NW	941	-	324540 209070
	Location:	Unit 6,Torfaen Business Centre,Gilchrist Thomas Industrial Estate,Blaenavon,Pontypool,Gwent,NP4 9RL				
	Classification:	Engineers - General				
	Status:	Active				
	Positional Accuracy:	Automatically positioned to the address				
	Contemporary Trade Directory Entries					
101	Name:	Definitive Furniture	NW	941	-	324540 209070
	Location:	Unit 2,Torfaen Business Centre,Gilchrist Thomas Industrial Estate,Blaenavon,Pontypool,Gwent,NP4 9RL				
	Classification:	Furniture Manufacturers - Home & Office				
	Status:	Inactive				
	Positional Accuracy:	Automatically positioned to the address				
	Contemporary Trade Directory Entries					
101	Name:	Shape Injection Mouldings	NW	941	-	324540 209070
	Location:	Unit 8,Torfaen Business Centre,Gilchrist Thomas Industrial Estate,Blaenavon,Pontypool,Gwent,NP4 9RL				
	Classification:	Plastics - Injection Moulding				
	Status:	Active				
	Positional Accuracy:	Automatically positioned to the address				
	Contemporary Trade Directory Entries					
101	Name:	21st Century Medical	NW	941	-	324540 209070
	Location:	Unit 4,Torfaen Business Centre,Gilchrist Thomas Industrial Estate,Blaenavon,Pontypool,Gwent,NP4 9RL				
	Classification:	Engineers - General				
	Status:	Active				
	Positional Accuracy:	Automatically positioned to the address				

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Contemporary Trade Directory Entries				
101	Name: The Caravan Centre Location: Unit 3,Torfaen Business Centre,Gilchrist Thomas Industrial Estate,Blaenavon,Pontypool,Gwent,NP4 9RL Classification: Caravans - Servicing & Repairs Status: Active Positional Accuracy: Automatically positioned to the address	NW	941	-	324540 209070
	Contemporary Trade Directory Entries				
101	Name: Socit Plant Ltd Location: Unit 10,Torfaen Business Centre,Gilchrist Thomas Industrial Estate,Blaenavon,Pontypool,Gwent,NP4 9RL Classification: Plant & Machinery Repairs Status: Active Positional Accuracy: Automatically positioned to the address	NW	941	-	324540 209070
	Contemporary Trade Directory Entries				
101	Name: Supreme Blinds Location: Unit 25,Torfaen Business Centre,Gilchrist Thomas Ind Est,Blaenavon,Pontypool,Gwent,NP4 9RL Classification: Blinds, Awnings & Canopies Status: Active Positional Accuracy: Manually positioned to the address or location	NW	942	-	324540 209070
	Contemporary Trade Directory Entries				
101	Name: Super Rod Ltd Location: Torfaen Business Centre,Gilchrist Thomas Ind Est,Blaenavon,Blaenavon,Gwent,NP4 9RL Classification: Cable & Wire Equipment Manufacturers Status: Active Positional Accuracy: Manually positioned within the geographical locality	NW	950	-	324520 209060
	Contemporary Trade Directory Entries				
101	Name: On Call Services Location: Unit 2,Gilchrist Thomas Industrial Estate,Blaenavon,Pontypool,Gwent,NP4 9RL Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	NW	987	-	324490 209080
	Contemporary Trade Directory Entries				
102	Name: Socit Location: Unit 13,Heritage Court,Gilchrist Thomas Ind Est,Blaenavon,Pontypool,Gwent,NP4 9RL Classification: Plant & Machinery Repairs Status: Active Positional Accuracy: Manually positioned within the geographical locality	NW	989	-	324580 209190
	Fuel Station Entries				
103	Name: Central Garage Location: Market Street,BLAENAVON,Gwent,NP4 9ET Brand: Closed Premises Type: Petrol Station Status: Closed Positional Accuracy: Manually positioned to the address or location	N	303	-	325330 208790
	Fuel Station Entries				
104	Name: Old Oak Service Station Location: Abergavenny Road,Blaenavon,Pontypool,Gwent,NP4 9RG Brand: UNBRANDED Premises Type: Petrol Station Status: Open Positional Accuracy: Automatically positioned to the address	N	757	-	325160 209240

Map ID	Details		Compass Direction	Estimated Distance From Site	Contact	NGR
	Fuel Station Entries					
104	Name:	Blaenavon Service Station	N	788	-	325170 209270
	Location:	Abergavenny Road,BLAENAVON,Gwent,NP4 9RG				
	Brand:	TEXACO				
	Premises Type:	Petrol Station				
	Status:	Open				
	Positional Accuracy:	Automatically positioned to the address				

Map ID	Details	Compass Direction	Estimated Distance From Site	Contact	NGR
	Sites of Special Scientific Interest				
	Name: Blorenge Multiple Area: Y Area (m2): 9824800 Source: Countryside Council for Wales Reference: 748,33wfl Designation Details: Biological Designation Date: 1st January 1971 Date Type: Renotified	NE	869	7	326050 209080

Data Type	Version	Update Cycle
Agency & Hydrological		
Air Pollution Controls Torfaen County Borough Council Department for the Environmental	July-2003	Annual Rolling Update
Air Pollution Control Enforcements Torfaen County Borough Council Department for the Environmental	July-2003	Annual Rolling Update
Discharge Consents Environment Agency Welsh Region	April-2004	Bi-Annually
Enforcement and Prohibition Notices Environment Agency Welsh Region	July-2004	As notified
Integrated Pollution Controls Environment Agency Welsh Region	April-2004	Quarterly
Integrated Pollution Prevention And Control Environment Agency Welsh Region	April-2004	Quarterly
Pollution Incidents to Controlled Waters Environment Agency Welsh Region	December-1998	Not Applicable
Substantiated Pollution Incident Register Environment Agency - Welsh Region South East Area	January-2004	Bi-Annually
Prosecutions Relating to Authorised Processes Environment Agency Welsh Region	July-2004	As notified
Prosecutions Relating to Controlled Waters Environment Agency Welsh Region	June-2004	As notified
Water Industry Act Referrals Environment Agency Welsh Region	April-2004	Quarterly
Registered Radioactive Substances Environment Agency Welsh Region	April-2004	Quarterly
River Quality Environment Agency Head Office	November-2001	Not Applicable
River Quality Biology Sampling Points Environment Agency Head Office	September-2003	Annually
River Quality Chemistry Sampling Points Environment Agency Head Office	January-2004	Annually
Water Abstractions Environment Agency Welsh Region	April-2004	Bi-Annually
Groundwater Vulnerability Environment Agency Head Office	January-1999	Not Applicable
Drift Deposits Environment Agency Head Office	January-1999	Not Applicable

Data Type	Version	Update Cycle
Agency & Hydrological		
Fluvial Indicative Floodplains Environment Agency Head Office	April-2004	Annually
Tidal Indicative Floodplains Environment Agency Head Office	April-2004	Annually
Source Protection Zones Environment Agency Head Office	December-2003	Variable
River Flood Data (Scotland) Centre for Ecology and Hydrology	September-1999	Not Applicable

Data Type	Version	Update Cycle
Waste		
BGS Recorded Landfill Sites British Geological Survey Information Services Group	June-1996	Not Applicable
Integrated Pollution Control Registered Waste Sites Environment Agency Welsh Region	April-2004	Quarterly
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Welsh Region South East Area	April-2004	Bi-Annually
Licensed Waste Management Facilities (Locations) Environment Agency - Welsh Region South East Area	April-2004	Bi-Annually
Local Authority Landfill Coverage Torfaen County Borough Council Department for the Environmental	May-2000	Not Applicable
Registered Landfill Sites Environment Agency - Welsh Region South East Area	March-2003	Variable
Registered Waste Transfer Sites Environment Agency - Welsh Region South East Area	March-2003	Variable
Registered Waste Treatment or Disposal Sites Environment Agency - Welsh Region South East Area	March-2003	Variable

Data Type	Version	Update Cycle
Hazardous Substances		
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	May-2001	Variable
Explosive Sites Health and Safety Executive	February-2004	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November-2000	Not Applicable
Planning Hazardous Substance Consents Torfaen County Borough Council Planning Department	July-2004	Annual Rolling Update
Planning Hazardous Substance Enforcements Torfaen County Borough Council Planning Department	July-2004	Annual Rolling Update

Data Type	Version	Update Cycle
Geological		
BGS Boreholes British Geological Survey National Geological Records Centre	May-2004	Quarterly
BGS Recorded Mineral Sites British Geological Survey Information Services Group	May-2004	Bi-Annually
BGS 1:625,000 Solid Geology British Geological Survey Information Services Group	August-1996	Not Applicable
Coal Mining Affected Areas The Coal Authority Mining Report Service	December-2003	As notified
Shallow Mining Hazards British Geological Survey Information Services Group	August-2002	Variable
Compressible Ground Subsidence Hazards British Geological Survey Information Services Group	August-2002	Variable
Ground Dissolution Subsidence Hazards British Geological Survey Information Services Group	August-2002	Variable
Gulls And Cambering Subsidence Hazards British Geological Survey Information Services Group	August-2002	Variable
Landslip Subsidence Hazards British Geological Survey Information Services Group	August-2002	Variable
Swelling Clay Subsidence Hazards British Geological Survey Information Services Group	August-2002	Variable
Mining Instability Ove Arup & Partners	October-2000	Not Applicable
Natural and Mining Cavities Peter Brett Associates Consulting Engineers	October-2001	Variable
Radon Affected Areas National Radiological Protection Board	September-1999	Not Applicable
Radon Protection Measures British Geological Survey Information Services Group	August-2002	Variable

Data Type	Version	Update Cycle
Industrial Land Use		
Contemporary Trade Directory Entries Thomson Directories	May-2004	Bi-Annually
Fuel Station Entries Catalist Ltd (Fuel Station Data)	May-2004	Quarterly

Data Type	Version	Update Cycle
Sensitive Land Uses		
Areas of Outstanding Natural Beauty		
Countryside Council for Wales	April-2004	Bi-Annually
Environmentally Sensitive Areas		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	January-2004	Annually
Forest Parks		
Forestry Commission	April-1997	Not Applicable
Local Nature Reserves		
Blaenau Gwent County Borough Council Municipal Offices	April-2004	Bi-Annually
Monmouthshire Council	April-2004	Bi-Annually
Marine Nature Reserves		
Countryside Council for Wales	April-2004	Bi-Annually
National Nature Reserves		
Countryside Council for Wales	April-2004	Bi-Annually
National Parks		
The National Assembly for Wales GI Services (Department of Planning & Countryside)	January-2004	Annually
Nitrate Sensitive Areas		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	December-2003	Not Applicable
Nitrate Vulnerable Zones		
The National Assembly for Wales GI Services (Department of Planning & Countryside)	January-2004	Annually
Ramsar Sites		
Countryside Council for Wales	April-2004	Bi-Annually
Sites of Special Scientific Interest		
Countryside Council for Wales	April-2004	Bi-Annually
Special Areas of Conservation		
Countryside Council for Wales	April-2004	Bi-Annually
Special Protection Areas		
Countryside Council for Wales	April-2004	Bi-Annually

Some of the organisations who provide data which is used within the report

Ordnance Survey	Ordnance Survey® Licensed Partner
Environment Agency	ENVIRONMENT AGENCY
Scottish Environment Protection Agency	SEPA Scottish Environment Protection Agency
The Coal Authority	The COAL AUTHORITY
British Geological Survey	British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL Value Added Reseller
Centre for Ecology and Hydrology	Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Countryside Council for Wales	CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES
Scottish Natural Heritage	SCOTTISH NATURAL HERITAGE
English Nature Site of Special Scientific Interest, National Nature Reserve, Ramsar, Special Protection Area, Special Conservation Area, Marine Nature Reserve data (derived from Ordnance Survey 1:10000 raster) is provided by, and used with the permission of, English Nature who retain the copyright and Intellectual Property Rights for the data	ENGLISH NATURE
National Radiological Protection Board	nrpb National Radiological Protection Board
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Contact	Name and Address	
1	**Torfaen County Borough Council Department for the Environmental** County Hall Cwmbran Torfaen NP44 2WN	Telephone 01633 648606 Fax 01495 755513
2	**Environment Agency National Customer Contact Centre (NCCC)** PO Box 544 Templeborough Rotherham S60 1BY enquiries@environment-agency.gov.uk	Telephone 08708 506 506
3	**British Geological Survey National Geological Records Centre** Keyworth Nottingham Nottinghamshire NG12 5GG ngis@bgs.ac.uk www.bgs.ac.uk	Telephone 0115 936 3109 Fax 0115 936 3276
4	**British Geological Survey Information Services Group** Kingsley Dunham Centre Keyworth Nottingham Nottinghamshire NG12 5GG www.bgs.ac.uk	Telephone 0115 936 3100 Fax 0115 936 3200
5	**The Coal Authority Mining Report Service** 200 Lichfield Lane Mansfield Nottinghamshire NG18 4RG thecoalauthority@coal.gov.uk	Telephone 0845 7626848 DX 716176 Mansfield 5

Contact	Name and Address	
6	**National Radiological Protection Board** Chilton Didcot Oxfordshire OX11 0RQ	Telephone 01235 831600 Fax 01235 833891
7	**Countryside Council for Wales** Plas Penrhose Fford Penrhos Bangor Gwynedd LL57 2LQ	Telephone 01248 385500 Fax 01248 355782
	Catalist Ltd (Fuel Station Data) Richmond House 22 Richmond Hill Clifton Bristol Avon BS8 1BA Mark@catalist-uk.com	Telephone 0117 923 7113 Fax 0117 923 7166
	Landmark Information Group Limited 6 - 7 Abbey Court Eagle Way Sowton Exeter Devon EX2 7HY mailbox@landmark-information.co.uk www.landmark-information.co.uk	Telephone 01392 441702 Fax 01392 441709

Please note that the Environment Agency/SEPA have a charging policy in place for enquiries

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS ref no: ISGR/...../.....

Your ref/order no. (if required): .....

Value Added Reseller

BOREHOLE RECORDS ORDER FORM

Please note this order form is only to be used for the supply of borehole records from the National Geological Records Centre (NGRC) identified from Landmark Reports

Name:- Company:-
Address:-

Telephone Number:- Fax Number:-

Date:-

With repect to the following boreholes I would like to: -

Enquire about the costs O Purchase copies O New Leaflet O

BGS Registration number:

Quarter Sheet	Number	Suffix	Name

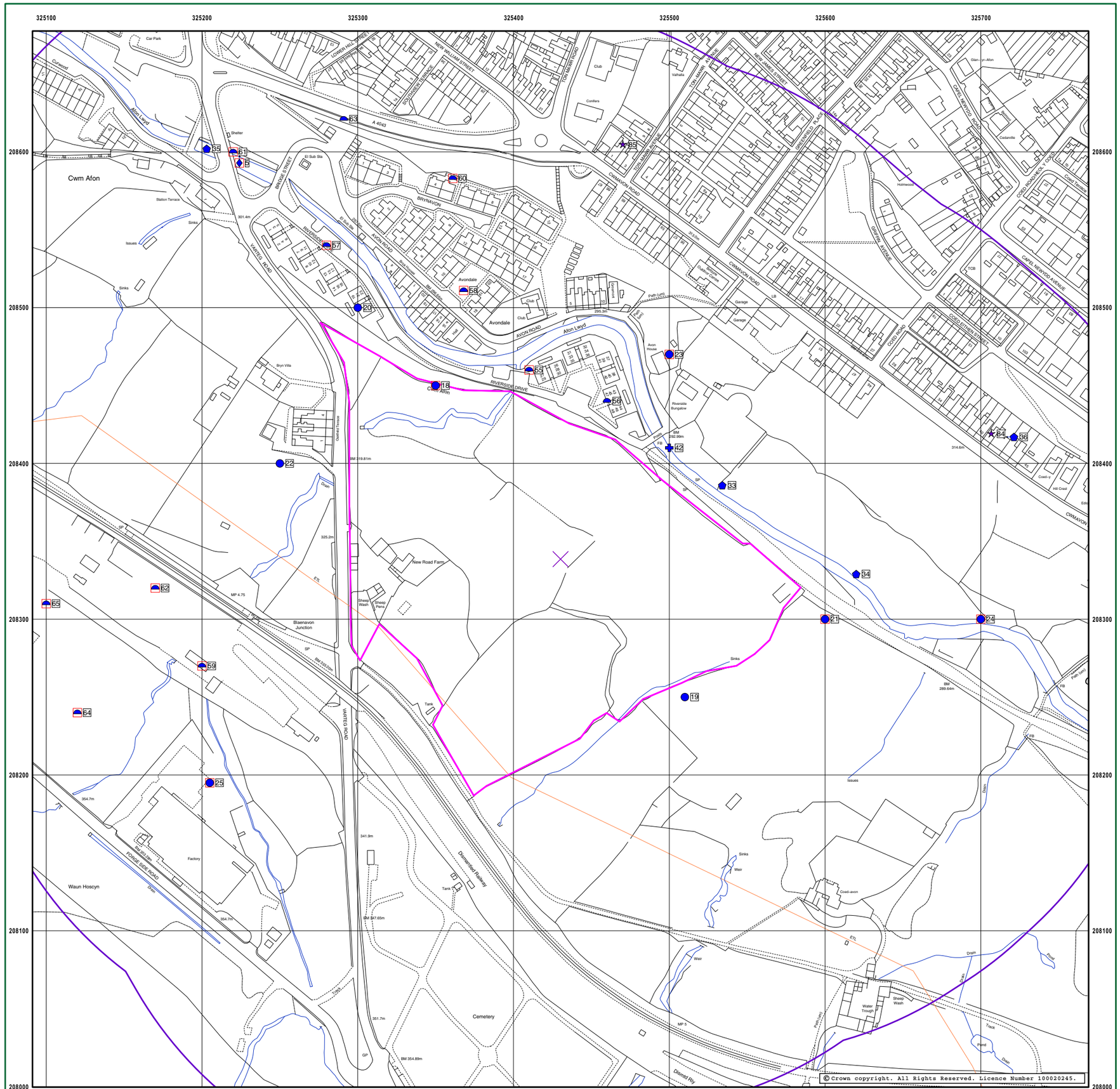
Note: More than 10 records can be ordered, but it is advisable to discuss your requirements first with NGRC staff

Unit price £13(+VAT) per borehole. Minimum charge £26(+VAT)

Method of delivery, please indicate preferred option.

1st class post O Special delivery (guaranteed next day before 12:30pm.) O Fax O
(Note 1st. class postage is included in the unit charge. Additional charges are made for fax or special delivery)

Please return this form to: - The Records Officer, National Geological Records Centre, British Geological Survey, Keyworth, Nottingham, NG12 5GG. Tel: 0115936 3109 Fax: 0115936 3276
E-mail: ngis@bgs.ac.uk



Envirocheck®

A Landmark® product

CLIENT DETAILS

Envirocheck Order No. EC5378211_1_1
(23-Jul-2004 14:38)

Customer Ref: Mr J Bailes,ES1487
Excal Limited
Excal House Capel Hendre Industrial Estate
Ammanford
Carmarhtenshire SA18 3SJ

SITE DETAILS

Grid Reference 325430 208340

New Road Farm
Varteg Road
Blaenavon
Pontypool
Torfaen NP4 9DY

KEY TO THE LEGEND DATABASE

General

- Specified Site
- Bearing Reference Point
- Buffer (250m)
- Reference Number
- Several of Type at Location
- Pylon
- Overhead Transmission Line

Waste

- Point Location of BGS Recorded Landfill Site
- BGS Recorded Landfill Site
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facilities (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Point Location of Local Authority Recorded Landfill Site
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Point Location of Registered Waste Transfer Site
- Registered Waste Transfer Site
- Point Location of Registered Waste Treatment or Disposal Site
- Registered Waste Treatment or Disposal Site

Agency and Hydrological

- Air Pollution Control
- Air Pollution Control Enforcement
- Point Location of Contaminated Land Register Entry or Notice
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement Or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Pollution Incident to Controlled Waters
- Substantiated Pollution Incident Register
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Water Abstraction
- Water Industry Act Referral

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Geological

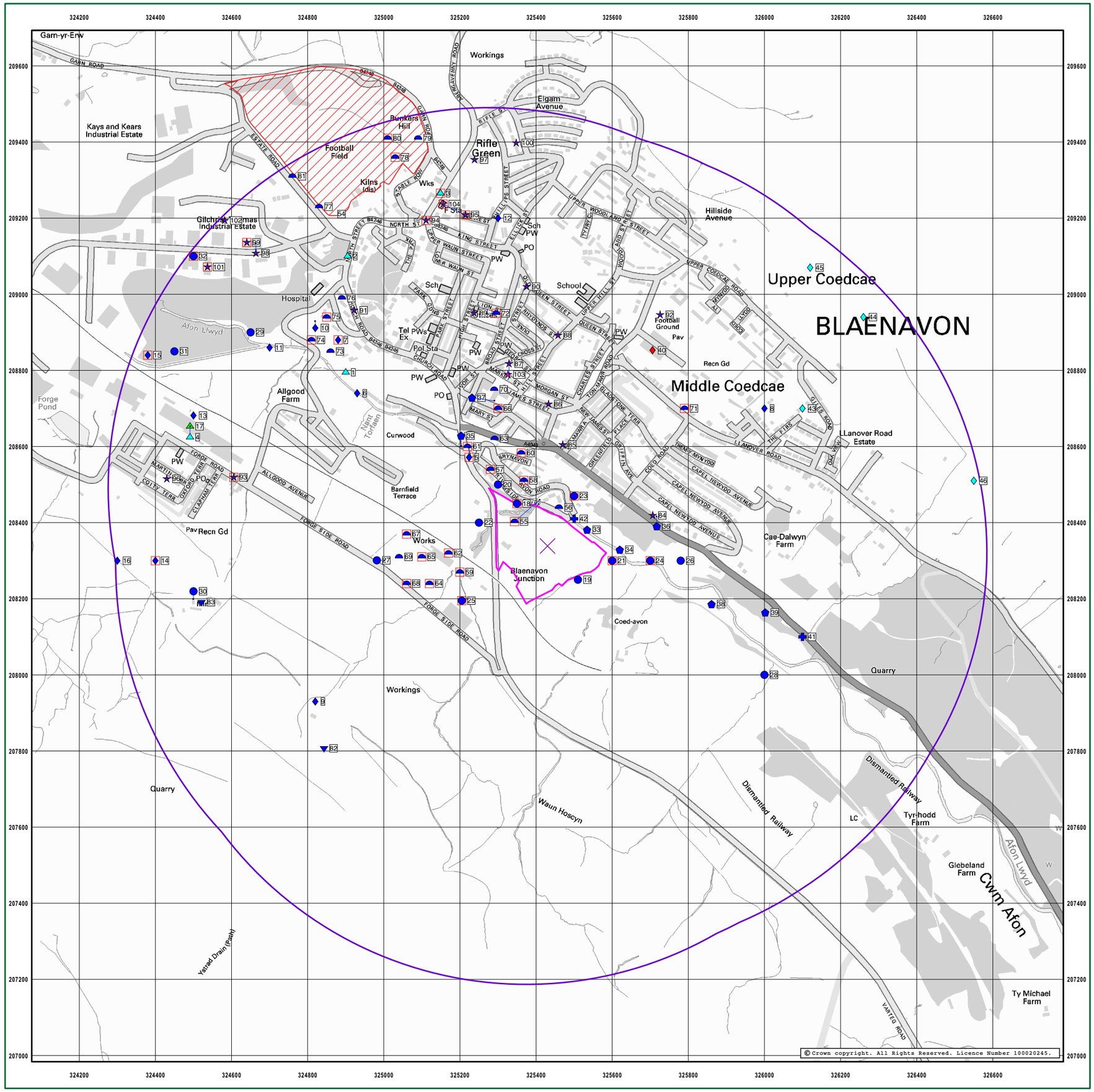
- BGS Borehole
- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

ENVIRONMENT AGENCY
British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Ordnance Survey® Licensed Partner
Value Added Reseller

Produced by Landmark Information Group Limited. Tel: 01392 441702 Fax: 01392 441709



Envirocheck®

A Landmark® product

CLIENT DETAILS — **Envirocheck Order No. EC5378211_1_1** (23-Jul-2004 14:38)

Customer Ref: Mr J Bailes,ES1487
Excal Limited
Excal House Capel Hendre Industrial Estate
Ammanford
Carmarhtenshire SA18 3SJ

SITE DETAILS — **Grid Reference 325430 208340**

New Road Farm
Varteg Road
Blaenavon
Pontypool
Torfaen NP4 9DY

KEY TO THE LEGEND DATABASE

General

- Specified Site
- Bearing Reference Point
- Buffer (1000m)
- Reference Number
- Several of Type at Location

Waste

- Point Location of BGS Recorded Landfill Site
- BGS Recorded Landfill Site
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facilities (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Point Location of Local Authority Recorded Landfill Site
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Point Location of Registered Waste Transfer Site
- Registered Waste Transfer Site
- Point Location of Registered Waste Treatment or Disposal Site
- Registered Waste Treatment or Disposal Site

Agency and Hydrological

- Air Pollution Control
- Air Pollution Control Enforcement
- Point Location of Contaminated Land Register Entry or Notice
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement Or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Pollution Incident to Controlled Waters
- Substantiated Pollution Incident Register
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Quality Sampling Point
- Water Abstraction
- Water Industry Act Referral

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Geological

- BGS Borehole
- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

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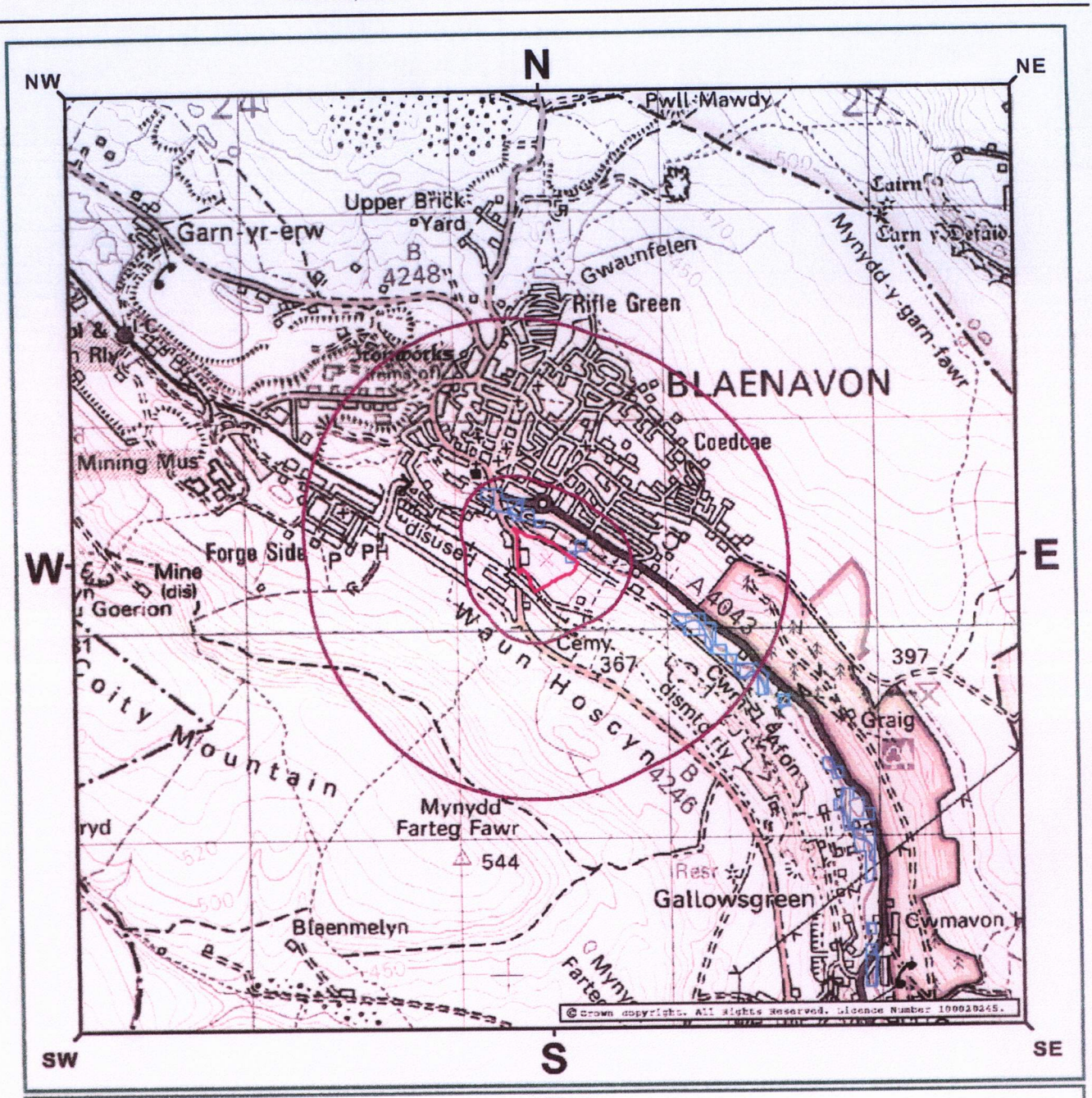


KEY

General

- Specified Site
- Bearing Reference Point
- Buffer

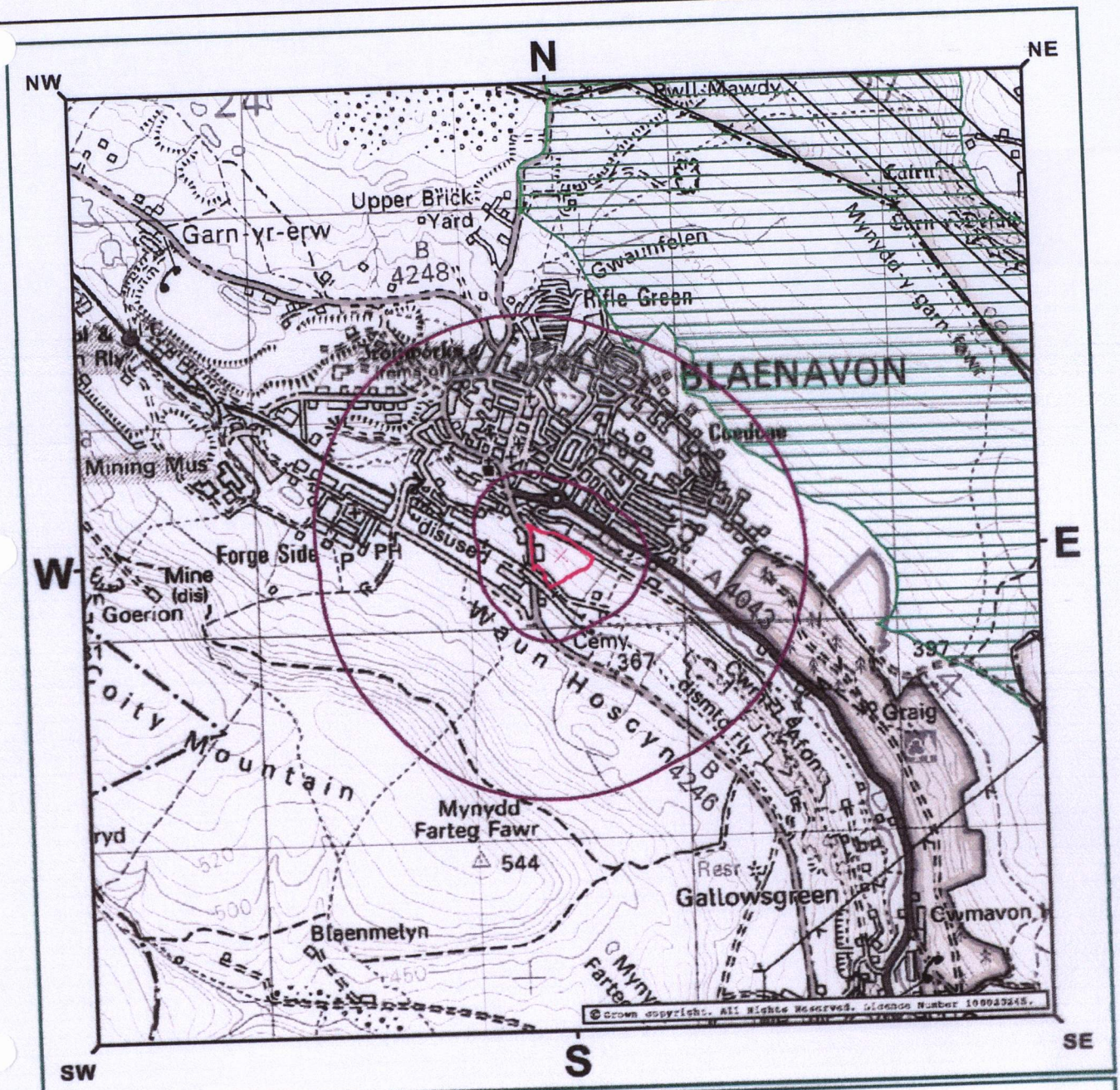
Agency & Hydrological

Environment Agency Indicative Floodplain

- Indicative Fluvial Floodplain
- Indicative Tidal Floodplain

Envirocheck®
A Landmark® product

Sensitive Land Uses Map



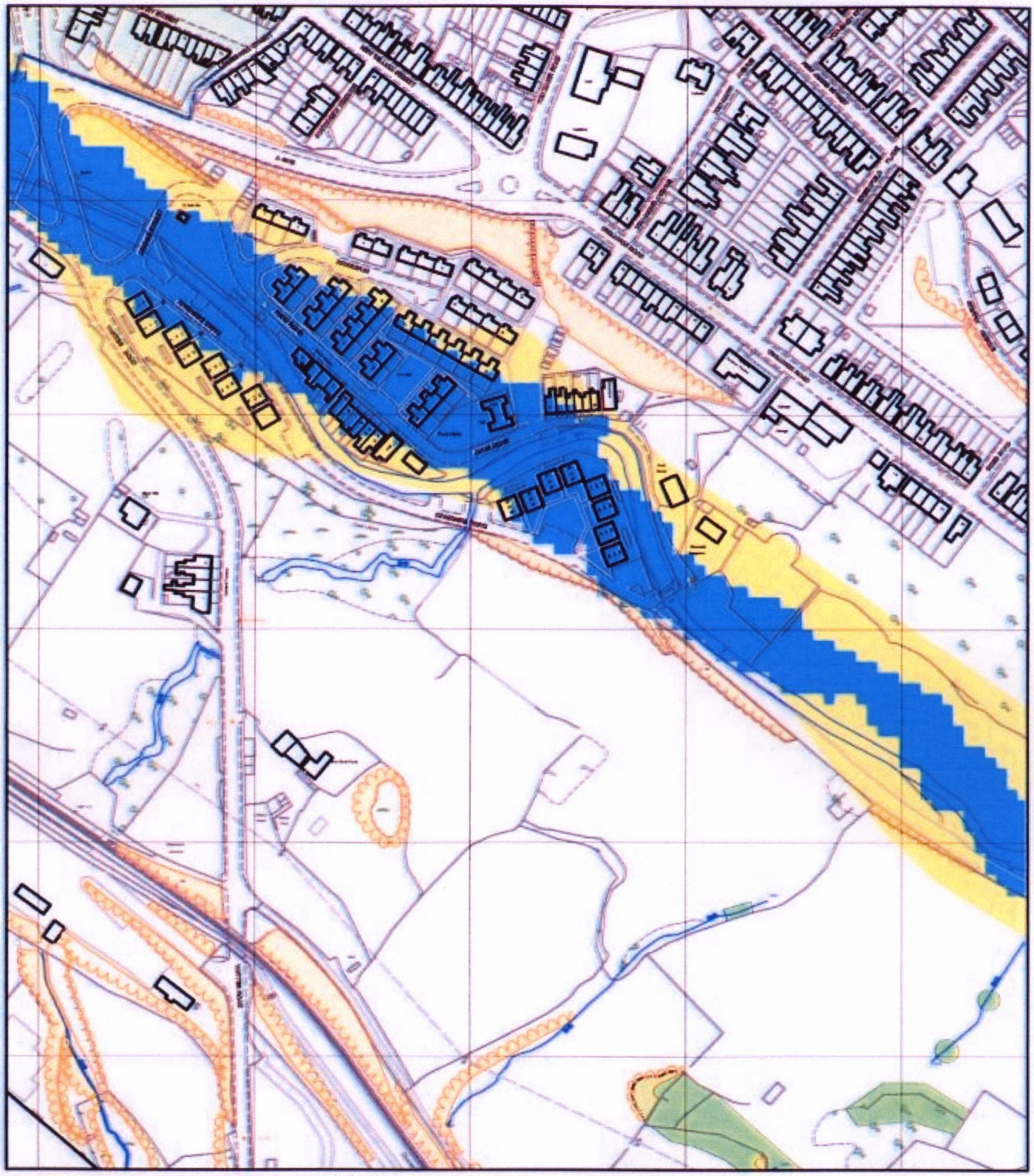
KEY

General

- Specified Site
- Bearing Reference Point
- Buffer

Sensitive Land Uses

- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- National Scenic Area
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area



TORFAEN COUNTY BOROUGH

BWRDEISTREF SIROL TORFAEN

0 1 2 300m

Scale - 1:2500 Date of plot: 16/08/05

Department for the Environment

Andrew Fretter, BSc DipTP MRTPI
Director for the Environment

APPENDIX C

Flora Species List

SPECIES LIST

Latin Name		**Common Name**
Acer pseudoplantanus	-	Sycamore
Agrostis canina	-	Velvet bent
Anthriscus sylvestris	-	Cow parsley
Arrhenatherum elatius	-	False oat grass
Bellis perennis	-	Daisy
Betula pendula	-	Silver birch
Capsella bursa-pastoris	-	Shepherd's cress
Cerastium holosteoides	-	Common mouse ear
Chamaenerion angustifolium	-	Rosebay willowherb
Cirsium arvense	-	Creeping thistle
Corylus avellana	-	Hazel
Crategus monogyna	-	Hawthorn
Cynosurus cristatus	-	Crested dog's tail
Dactylis glomerata	-	Cocksfoot
Daucus carota	-	Wild parsley
Digitaslis purpurea	-	Foxglove
Fagus sylvatica	-	Beech
Fraxinus excelsior	-	Ash
Galeopsis tetrahit	-	Common hemp nettle
Galium aparine	-	Cleavers
Holcus lanatus	-	Yorkshire fog
Juncus articulatus	-	Jointed rush
Juncus effusus	-	Soft rush
Lolium perenne	-	Perennial ryegrass
Lotus corniculatus	-	Common bird's foot trefoil
Matricaria matricarioides	-	Pineappleweed
Medicago lupulina	-	Black medick
Mentha arvensis	-	Corn mint
Mercurialis perennis	-	Dog's mercury
Oxalis acetosella	-	Wood sorrel
Phleum pratense	-	Timothy
Plantago lanceolata	-	Ribwort plantain
Poa annua	-	Annual meadow grass
Polygonum aviculare	-	Knotgrass
Polygonum persicaria	-	Redshank
Potentilla reptans	-	Creeping cinquefoil
Prunella vulgaris	-	Selfheal
Prunus spinosa	-	Blackthorn (sloe)
Pteridium aquilinum	-	Bracken
Quercus robur	-	Pedunculate oak
Ranunculus acris	-	Meadow buttercup
Ranunculus bulbosus	-	Bulbous buttercup
Ranunculus ficaria	-	Lesser celandine
Ranunculus repens	-	Creeping buttercup
Rumex acetosa	-	Common sorrel
Rumex obtusifolius	-	Broad leaved dock
Sambucus nigra	-	Elder

SPECIES LIST

Setaria vividis	-	Green bristle grass
Sorbus ancuparia	-	Rowan
Stellaria media	-	Common chickweed
Taraxacum officinalle agg	-	Dandelion
Trifolium dubium	-	Lesser trefoil
Trifolium pratense	-	Red clover
Trifolium repens	-	White (dutch) clover
Urtica dioicia	-	Common nettle
Veronica serpyllifolia	-	Thyme leaved speedwell
Vicia sativa	-	Common vetch

APPENDIX D

Ecology Reports

Survey Report for Blaenavon Proposed Development Site

Grid Reference SO 2540 0844

Survey and Report carried out on behalf of Excal by The Wildlife Trust of South and West Wales

Survey Dates March to May 2005

Contents

1 Survey Requirement

1.1 The requirement of the survey was to establish the presence or otherwise within the survey boundary of the Water Vole *Arvicola terrestris*, Otter *Lutra lutra* and the White Clawed Crayfish *Austropotamobius pallipes*. In addition to establish the presence or otherwise of the Great Crested Newt *Triturus cristatus* within the survey boundary.

2 Introduction

2.1 Otter ecology

2.1.1 Otters (*Lutra lutra)* are very accomplished predators and are one of Great Britain's largest and effective land based mammals. An Otters territory must therefore be large enough to fulfil its ecological requirements for feeding and breeding. Essential nomadic each animal can inhabit a home range of up to forty kilometres of waterway, which the otter will patrol and utilise for feeding often in a single night. Although mainly nocturnal otters can be seen throughout the day hunting for fish and amphibians in a diverse array of freshwater and coastal habitats, including rivers, streams, ditches, wetlands, lakes, ponds and reservoirs.

2.1.2 Otters feed on a variety of prey that varies throughout a season depending on the most abundant prey species present at a given time of year. Fish species and Eels are among the favoured prey whilst amphibians such as frogs and toads become increasingly important prey during late winter and early spring. An abundance of food is essential for breeding otters with young litters. Otters can breed throughout the year, with no more than one litter per year. The cubs remaining with the bitch for many months.

2.1.3 Given the large territory needed by otters there must be an adequate number of safe resting areas or Holts along a particular stretch of watercourse. A suitable resting Holt would normally be utilised during daylight hours. Holts can take various forms including exposed root systems at water level, natural cavities along river banks and dense areas of scrub. Other habitats suitable for Holts include piles of fallen timber, earth tunnels, old rabbit burrows and couches in rough grassland. Suitable breeding holts are in short supply as they need to be larger to accommodate an adult and its litter as well as being sited in a secluded area away from potential disturbance. Contrary to popular belief otters are not confined to large rivers and small-secluded tributaries can offer ideal breeding locations, as well as providing important resting Holts in flood conditions.

2.2 Water Vole Ecology

2.2.1 Water voles (*Arvicola terrestris)* are the largest member of the vole family found in Great Britain. Water Voles can be found in a number of different wetland habitats including slow flowing streams, canals, lakes, ponds and marshland areas both lowland and upland. The male vole can have a territory size of up to 150m of waterway during the breeding season, with females holding territories of around 70m. Territories are marked with distinctive latrines left near the waters edge. During winter the water vole becomes less territorial often nesting in communal burrows.

2.2.2 The water vole feeds upon a broad range of aquatic and bankside vegetation. In total over 250 species have been recorded in the water vole diet.

2.2.3 Habitat degradation and predation by non-native predators such as the American mink has led to a dramatic decline in Water Vole number in recent decades. Estimates suggest that the water vole has disappeared from95% of its former sites

2.3 White Clawed Crayfish Ecology

2.3.1 The white –Clawed Crayfish (*Austropotamobius pallipes)* is the only crayfish native to Great Britain. Populations of the species can be extremely localised are not uniformly spread along a water course. The habitat preference of the crayfish are the slow flowing, stony and riffle sections of rivers with good water quality and low levels of acidity. Populations are often concentrated into area offering the most suitable habitat particularly around the banks of rivers and streams in submerged crevices of rocks, walls and often gabion baskets. Other important habitats include rotten wooden structures, debris dams and submerged tree roots (Environment Agency, 2002)

2.3.2 Crayfish are omnivorous and feed a wide variety of materials including aquatic vegetation and fallen leaves as well as aquatic invertebrates such as caddis larvae, water snails and mayfly nymphs. They also scavenge on the dead remains of other large organisms such as fish.

The native crayfish is under threat from the introduction of non-native crayfish species, crayfish plague and habitat destruction through canalisation of river banks. Crayfish are extremely susceptible to the effects of chemical pollution particularly sheep dips.

2.4 Great Crested Newt Ecology

2.4.1 The Great Crested Newt *(Triturus cristatus)* is the largest of the newt species native to the UK. The newts spend the largest proportion of the year on land but must return to ponds for breeding. As a result great crested newts need a mixture of good quality terrestrial and aquatic habitats. As many great crested newts occur in metapopulations a cluster of ponds within a locality can be essential to newt survival. As fish are the major predators of newt larvae and eggs ephemeral ponds which are unable to sustain a fish population can be important newt breeding sites (Froglife, 2001).

2.4.2 Between late February and may mature adults return to ponds to breed. Eggs are laid on emergent vegetation and the eggs are wrapped in a folded leaf for protection. At the height of the egg laying period a female can lay up to ten eggs per day. Eggs take up to two weeks to hatch depending on the micro climate of the pond. Once hatched the larvae feed on aquatic invertebrates including water fleas, shrimps and mayfly nymphs. Metamorphosis is complete after approximately sixteen weeks and the juvenile newts leave the pond. Great crested newts reach maturity at between two and four years

2.4.3 In winter when temperatures fall below 5°C great crested newt activity falls with most animals dormant by November. During this period newts conceal themselves within rock crevices and beneath dead wood.

3 Survey Methodologies

3.1 Otter

3.1.1 Two experienced and licensed surveyors carried out the survey on 6th march 2005. All areas within the boundary were thoroughly surveyed for any evidence of otter activity, including: -

- Spraints
- Sprainting Areas
- Footprints
- Otter Holts
- Otter Runs (Pathways leading to holts)
- Other otter resting sites
- Feeding areas

.

3.1.2 The identification of an Otter Holt was determined by examining additional evidence found at the site. Depending on this additional information a resting site / Holt was divided into one of three categories: -

1) **Actual Holt** – These show signs that the entrance is well used by otters, including a well- trampled entrance, extra excavation spraints or footprints.

2) **Probable Holt** – These sites meet the typical needs of otters and that there is known otter activity in the area but there are no obvious otter signs in close vicinity to the Holt.

3) **Potential Holt** – These sites are typical of an otter resting area but no confirming evidence of otter activity could be found.

3.1.3 Sprainting sites were located and both the numbers and ages of the spraints found were recorded. This information is important in determining the extent of otter activity and the time period over which otters have been utilising a given stretch of river or wetland.

3.2 Water Vole

3.2.1 Experienced and licensed surveyors undertook the surveys on 5th March 2005. All suitable water vole habitats within the given boundary were thoroughly surveyed for any evidence of water vole activity. These included a number of dry streams, wet grassland areas as well as all water bodies within the survey boundary The presence/absence of water voles was based on the identification of a number of characteristic field signs, including:

- Latrines
- Food Piles
- Feeding Remains
- Burrows
- Above Ground Nests
- Runways
- Sightings

3.3 White Clawed Crayfish.

3.3.1 The crayfish (*Austropotamobius pallipes*) survey was carried on 6th march 2005 by two experienced and licensed surveyors. All watercourses within the survey boundary were surveyed using two different survey methods.

1 Habitat appraisal
2 Manual searching

3.3.2 Habitat Appraisal

3.3.3 A habitat assessment was made along the banks of the watercourses. Notes were made as to the suitability of the habitat to offer potential crayfish refuges. These included any stone revetments, walls, tree roots, emergent and submerged vegetation and gaps or crevices in bridges or walls.

3.3.4 Manual Searching

3.3.5 Two surveyors carried out a manual search for crayfish within the survey boundary. This involved searching beneath stones and boulders within all watercourses. Areas noted during the habitat assessment as having the potential to offer refuge to crayfish were also manually searched.

3.4 Great Crested Newt.

3.4.1 Two experienced and licensed surveyors undertook the survey between March and May 2005 and included four separate survey days. All water bodies within the prescribed boundary were surveyed. The survey was executed using four different survey techniques.

1 Terrestrial refuge search
2 Egg searching
3 Netting
4 Torch survey

3.4.2 Terrestrial Refuge Search

3.4.3 Two surveyors carried out a manual search for great crested newt in terrestrial habitats within the survey boundary. All potential newt refuges were examined. This survey involved searching beneath stones, rocks; logs and discarded debris in an attempt reveal juvenile or adult newts. This technique was selected as it can be carried out earlier in the year than other methods, and can be useful in detecting newts returning to water bodies to breed.

3.4.4 Egg Search

3.4.5 An egg search was carried out on three separate site visits within the survey period. All submerged and emergent aquatic vegetation was examined for the presence of newt eggs. This involved searching vegetation for the presence of folded leaves. Where such leaves were found they were unwrapped and any egg present identified as to species. Any newt species found were recorded.

3.4.6 Netting

3.4.7 Netting was carried out on three separate visits within the survey period. Netting was standardised to 15mins per 50m of watercourse boundary using methodologies consistent with guidelines on SSSI selection. All amphibian species were recorded along with their life stages.

3.4.8 Torching

3.4.9 Torch surveys to detect adult newts were carried out on three survey nights. Surveys were carried out between dusk and 10pm. All suitable watercourses within the survey boundary were searched with particular attention paid to marginal vegetation and potential open display areas.

3.4.10 The four above techniques were used during the survey. The exact methodologies adopted varied according to the water body being surveyed, and its potential to support great crested newt.

4 Habitat Assessment

4.1 The grassland within the boundary comprises a short sward dominated by sheep's fescue (*Festuca ovina)*. The grassland is very heavily grazed by sheep. A small section of rough grassland between the survey boundary and the Afon Lwyd is inaccessible to livestock and offers a more diverse assemblage of plant species. Some scrub has developed within this area. This area of rough grassland and shrub has the potential to be used as an otter resting area, however the close proximity of the adjacent housing may reduce its value to otters. The area is generally unsuitable for water vole. The rough grassland and scrub offer potential refuge sites for amphibian species including newts.

4.2 The Afon lwyd flows to the north of the site. The river corridor has been subject to alteration and canalisation. The river bank habitat is unsuitable for water vole, and although otters have been recorded resting areas at this location are limited. An un-named stream, a tributary of the Lwyd forms the North West boundary of the survey area. The riparian corridor contains a number of mature beech (*Fagus silvatica)* and other shrub and tree species. However severe grazing pressure is evident along the length of the stream, resulting in a very short sward and a low diversity of plant species. The habitat at this part of the site is unsuitable for water vole and limited in its use for otters. The exposed root systems apparent in the banks of the stream do provide potential crayfish refuge. Evidence of a water course to the east of the site exists in the form of a dried up stream bed. At the time of the survey no water was in this system and evidence would suggest that this had been the case for a substantial period of time prior to the survey date. A hedgerow showing signs of extreme grazing pressure borders the stream/dry ditch. Evidence on the ground would indicate that in the past some further small water bodies were present on the site, however at the time of the survey all such features were dry and had been so for a considerable time. None of these defunct water bodies were suitable habitat for water vole, otter or crayfish. The boulders and debris within these bodies did offer potential amphibian refuge sites.

5 **Result**

5.1 Otter

5.1.1 Potential otter holt in large Beech on tributary of the Afon lwyd.
Grid Reference SO 25374 08419

5.2 Water Vole

5.2.1 No evidence of water vole activity was recorded

5.3 White Clawed Crayfish

5.3.1 No evidence of a White Clawed Crayfish presence was recorded.

5.4 Great Crested Newt

5.4.1 No evidence of Great Crested Newt was recorded.

6 Conclusion

- No evidence of otter activity was recorded within the survey boundary, although otters have been recorded travelling along the Afon lwyd.

- The habitat within the survey boundary is unsuitable for water vole.

- No water vole activity was recorded. No evidence of water vole activity in the period prior to the survey date was recorded.

- The area is generally unsuitable for white clawed crayfish. Some suitable refuge areas were observed, however no evidence of a crayfish presence was recorded.

- The lack of suitable ponds and other water courses makes the area unsuitable as a Great Crested Newt breeding area.

- Potential terrestrial refuge sites suitable for newts were located during the survey, however no evidence of Great Crested Newt was recorded.

- The survey area is extremely heavily grazed reducing its value for all of the species for which surveys have been carried out.

7 References

Environment Agency (2000) Guidance on works affecting white-clawed crayfish.

Langton,T.E.S., Beckett, C.L., and Foster, J.P. (2001). *Great Crested Newt Conservation handbook.* Froglife. Halesworth

REPORT ON A BS5837 TREE SURVEY

AT

NEW ROAD FARM

BLAENAVON

April 2005

Treescope Ltd Registered in England No. 4824334
17 Highlands Drive, North Nibley, Dursley, Glos. GL11 6DX
Telephone: 01453 547867 Mobile: 07960 435280

1. INSTRUCTIONS/SCOPE

1.1 I have been instructed by Brickyard Homes Ltd to carry out a survey of trees on a site at New Road Farm, Blaenavon.

1.2 I have been provided with the following:

- A 1:500 scale site survey drawing (Morgan & Horowskyj Dwg. No. 0417-001 dated February 2004)

1.3 I understand that there is a proposal to redevelop the site and I have therefore carried out a tree survey in accordance with BS5837:1991 Trees in Relation to Construction[1].

1.4 In this report, I provide comments on the condition of the trees and make comments, where appropriate, regarding their suitability for long-term retention if the site is developed. No [illegible] are included at this stage as a proposed layout is not available.

[illegible] is a ground level inspection of the trees by a person [illegible] soil samples.

[illegible] may occasionally fail without warning. It is therefore not possible to state with certainty that any tree is completely safe.

1.7 The site was surveyed on 20th April 2005. The weather conditions were dry.

1.8 This survey is valid for a period of 12 months.

2. TREE SURVEY

2.1 A schedule of the individual trees and groups of trees which have been surveyed is attached to this report. A plan annotated with the reference numbers of these trees is also attached. There are a number of smaller trees and shrubs within the site; these have not been included in the survey but comments have been included in the report where appropriate. One large tree which was not shown on the survey drawing has been included in this survey and its approximate position has been marked on the drawing.

2.2 Tree heights were estimated to the nearest 1.0m. They can be measured if required using a Suunto clinometer. Trunk diameters were estimated to the nearest 50mm. They can be measured if required using a girth tape.

2.3 Crown radii were estimated to the nearest 1.0m. Tree crowns are rarely symmetrical; where they were markedly asymmetrical the maximum spread and approximate direction is noted in the survey schedule.

2.4 The age category of each tree is based on an assessment of the average lifespan of that species.

2.5 The condition of each tree is described as GOOD, AVERAGE, POOR, MORIBUND or DEAD. This is based on its health and vigour, any structural defects, and its size and form. Any observations on conditions of significance for safety are highlighted in **bold** in the schedule.

2.6 Refer to the schedule for abbreviations used.

3. SITE DESCRIPTION AND OBSERVATIONS

3.1 The site consists of agricultural land located to the south of the built-up area of Blaenavon. To the north is a steep wooded ravine, beyond which is a small area of pasture land. The site is currently in use as sheep pasture. It lies on the southern side of the Afon Llwyd valley and falls steeply from south west to north east. It is relatively sheltered from the prevailing south westerly winds but will be exposed to winds that are funnelled up or down the valley.

3.2 The site boundaries consist of agricultural fencing with barbed wire topping. There is a road along most of the western boundary, a new development of flats to the north and further agricultural land beyond the remaining boundaries.

3.3 The steep ravine contains a number of large trees, mostly beech, which form a prominent feature of the local landscape. Apart from two specimens in the vicinity of the farmhouse, the remaining trees are situated on existing or former field boundaries.

3.4 All the trees are native species, apart from two sycamores near the farmhouse. They are mostly mature or middle aged, with very few young trees present.

3.5 Past tree management appears to have consisted mostly of removal of low branches. There has been some recent cutting back of crowns where they are close to overhead cables (Tree numbers 13, 45, 50 and 51).

3.6 The condition of the trees varies. There are a number of healthy prominent specimens, but also several (mostly smaller ones) which are in very poor condition.

4. DISCUSSION AND RECOMMENDATIONS

4.1 Each tree has been allocated a retention category, in accordance with section 5.2 of BS5837. *(This is reproduced as an appendix to this report).* There are 12 trees in category A (high), 17 in category B (moderate), 24 in category C (low) and 14 in category D (fell).

4.2 The proportion of A and B category trees is higher than usual and reflects the number of large mature trees which are prominent when viewed from outside the site boundaries.

4.3 The trees growing in the ravine provide mutual shelter which may allow some structurally suspect specimens to be retained, provided this shelter is maintained. This part of the site also contains a number of sapling hawthorns, silver birch and beech, which should be retained. However, there is considerable erosion and several of the mature trees have badly exposed roots. One tree (T47) has recently fallen across the stream and there is some concern for the long term stability of T56.

4.4 The hawthorns, hazels and elders are all large shrubs which are mostly hedgerow remnants which show evidence of past management by frequent trimming. With the exception of tree number 29, which is a well-shaped specimen, these are not considered to be worthy of retention and have been allocated retention category C.

4.5 Several trees have barbed wire embedded in their trunks. Removal will be difficult and it should therefore be cut off for safety reasons.

4.6 Tree numbers 6, 50, 53 and 54 have evidence of internal decay which will require further investigation if they are to be retained. Surgery work may be recommended as a result of these investigations.

4.7 Tree protection zones (TPZ) have been calculated using Table 1 of BS5837 and are shown in the last column of the schedule. There should be no development within the TPZ, but other considerations, particularly the need to provide adequate space around the trees, including allowances for future growth, light penetration to habitable rooms and gardens, and also working space, will usually indicate that structures should be further

away. Further advice regarding the impact of any proposed layout on the trees can be provided if required.

4.8 Detailed surgery proposals can be put forward once a final layout has been approved and it is decided if any trees are to be retained. All tree work should conform to BS3998 (1989) "Recommendations for Tree Work"[2]. It is recommended that surgery is carried out before the development commences.

4.9 Protective fencing for any retained trees (including those on the adjacent site) should be erected immediately after the completion of tree work and before the main contractor enters the site. Groups of trees may be fenced together. The fencing should conform to BS5837 paragraph 8.2. It should be retained in good condition until the completion of the development.

4.10 In order to prevent damage to the trees, including their roots, within the fenced area:

- There should be no alteration of ground levels, including soil stripping.
- There should be no trenching to accommodate services, unless this complies with NJUG 10[3] guidelines and has been agreed in advance with the Local Planning Authority.
- There should be no storage of any materials or equipment, even on a temporary basis.
- Oil, bitumen, cement or other harmful materials should not be stored, mixed or discharged within 10m of the trunk of any retained tree.
- No fires should be lit beneath or 10m upwind of tree canopies.

4.11 On completion of the development, the retained trees should be inspected and any necessary remedial surgery carried out.

4.12 Mature trees should be inspected annually thereafter, or immediately after storm conditions, if earlier.

5. LEGAL

5.1 If the trees are covered by a tree preservation order, consent for works should be obtained from the Local Planning Authority. Consent is not required for urgent work to dead, dying or dangerous trees, but the Local Planning Authority should be given at least five days notice of the intended works. Replacement trees may be required for any protected trees which are felled. If the site is in a conservation area, six weeks notice of works to all trees should be given. Consent for cutting back of overhanging branches is not required from their owner but work must not extend beyond the boundary without consent.

5.2 There are a number of cavities in the trunks and larger branches of the trees which could be used by birds or bats for shelter and breeding. It is an offence under the Wildlife and Countryside Act and Countryside and Rights of Way Act to disturb a nesting bird or roosting/breeding bat. Work to trees with the potential for roosting bats is best carried out from mid September to late October. This assumes that young bats are weaned and independent, and is before hibernation. Mid-March to the end of April is also a suitable time, after hibernation and before young are born, although due account should be taken of nesting birds, which also (with few exceptions) enjoy statutory protection. Further advice, particularly if bats are discovered during tree work, may be obtained from the Countryside Council for Wales.

6. REFERENCES

1 British Standard 5837 (1991) 'Guide for Trees in Relation to Construction'.

2 British Standard 3998 (1989) 'Recommendations for Tree Work'.

3 National Joint Utilities Group (1995) 'Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees' (NJUG 10).

Sue Adams.

Sue Adams BSc, MSc, BTP, MIC For., Dip. Arb.(RFS), F. Arbor. A.
Arboricultural Consultant

25 April 2005

APPENDIX 1: EXTRACT FROM BS5837:1991

5.2 Tree survey

5.2.1 The species and condition of all trees included in the land survey should be assessed by a person experienced in arboriculture. In making this assessment, particular consideration should be given to:

(a) the health, vigour, and condition of each tree;
(b) any structural defect in each tree, and its life expectancy;
(c) the size and form of each tree, and its suitability within the context of the proposed site development;
(d) the location of each tree relative to existing site feature, e.g. its value as a screen or as a skyline feature.

5.2.2 On the basis of this assessment, trees should be divided into one of the following categories, differentiated by cross hatching or by colour *(suggested colours are indicated)*:

(a) trees whose retention is most desirable: high category *(green)*
  (1) vigorous healthy trees, of good form, and in harmony with proposed space and structures;
  (2) healthy young trees, of good form, potentially in harmony with the proposed development;
  (3) trees for screening or softening the effect of existing structures in the near vicinity, or of particular visual importance in the locality;
  (4) trees of particular historical, commemorative or other value, or good specimens of rare or unusual species;

(b) trees where retention is desirable: moderate category *(blue)*
  (1) trees which might be included in the high category, but because of their numbers or slightly impaired condition, are downgraded in favour of the best individuals;
  (2) immature trees, with potential to develop into the high category;

(c) trees which could be retained: low category *(brown)*
  (1) trees in adequate condition, or which can be retained with minimal tree surgery, but are not worthy for inclusion in the high or moderate categories;
  (2) immature trees, or trees of no particular merit;

(d) trees for removal: fell category *(red)*
  (1) dead or structurally dangerous trees;
  (2) trees with insecure roothold;
  (3) trees with significant fungal decay at base or on main bole;
  (4) trees with a cavity or cavities of significance to safety;
  (5) trees that will become dangerous after removal of other trees for the reasons given in items 1 to 4.

DEVELOPMENT SITE SURVEY

SITE:...NEW ROAD FARM, BLAENAVON

SURVEYOR: S. Adams
DATE: 20 April 2005
WEATHER: Fine

Abbreviations:

No: = tree number on survey plan.

DBH: = trunk diameter at breast height (1.5m)

Rad: = crown radius. If eccentric, maximum radius given.

Vig: = vigour N = normal
L = low

Age Class: Y = Young (less than 1/3 life expectancy)
MA= Middle aged (1/3 to 2/3 life expectancy)
M = Mature (over 2/3 through life expectancy)
OM = Over mature

Condition: = GOOD, AVERAGE, POOR, MORIBUND or. DEAD. based on health and vigour, any structural defects, and form.

Ret. Cat. = Retention Category (refer to BS5837 (1991) Section 5.2.2 for detailed descriptions)
A = high –healthy trees, of good form; for screening or visual importance; historical, commemorative or rare species.
B = moderate – healthy trees with minor defects which can be remedied; immature trees with high potential.
C = low – trees in adequate condition or requiring surgery;; immature trees of no particular merit.
D = fell – dead, dying or dangerous trees.

TPZ = Tree Protection Zone: = Recommended distance (in metres) between the trunk of the tree and the protective fencing, calculated from Table 1 of BS5837 using Age Class, Vigour and Diameter

ECC = eccentric crown
MS = multi-stemmed

Probe = investigate extent of suspected decay using decay detection device.
* = tree offsite.

No.	Species	Ht	Rad	DBH	Age Class	Vig	Condition	Ret Cat	TPZ
T1*	Ash *(Fraxinus excelsior)*	12.0	6.0	900 (@1m)	M	N	AVERAGE. Cavity in base, possible weak fork in stem over adjacent property.	B	8.0
T2	Oak *(Quercus robur)*	10.0	6.0	600	MA	N	AVERAGE. Scattered deadwood.	B	6.0
T3	Oak	12.0	6.0	800	M	N	GOOD. Symmetrical crown. Leaning at base but well buttressed.	A	8.0
T4	Oak	13.0	6.0	800	M	N	GOOD. Scattered deadwood. (Unable to inspect base.)	A	8.0
T5	Oak	15.0	8.0	900	M	N	AVERAGE. Showing signs of slight stress. Distorted lower limbs. Crown recently lifted over adjacent site.	B	8.0
T6	Silver Birch *(Betula pendula)*	14.0	6.0	700	M	N	POOR. Decay in two low laterals extending into main stem. Short safe life expectancy. **Requires monitoring for safety.**	C	6.0
T7	Ash	16.0	8.0	850	M	N	POOR. Severe basal decay. Storm damage in mid crown. Possible cavities in wounds. **Vulnerable to further branch breakage.**	D	—
T8	Oak	16.0	6.0	900	M	N	AVERAGE. Part of prominent group. Showing slight signs of stress. (Unable to inspect part of base.)	A	8.0
T9	Oak	16.0	ECC 8.0 N&S	700	M	N	AVERAGE. Centre tree of prominent group. Narrow crown.	A	6.0
T10	Beech *(Fagus sylvatica)*	15.0	ECC 8.0 W&N	800	M	N	AVERAGE. Part of prominent group. Major limb lost 5m. E, otherwise reasonable form/condition. (Unable to inspect part of base.)	A	8.0
T11	Ash	8.0	3.0	250	Y	N	AVERAGE. Bark wound at base.	C	3.0
T12	Oak	9.0	8.0	MS (=900)	M	N	AVERAGE. Prominent on site boundary. Spreading crown from 3 stems.	B	8.0
T13	Oak	15.0	8.0	800 + 600	M	N	POOR. One large stem dead. Remaining stem has contorted form containing deadwood, cut back from overhead power lines. Will never make good specimen.	C	8.0

No.	Species	Ht	Rad	DBH	Age Class	Vig	Condition	Ret Cat	TPZ
T14	Oak	10.0	ECC 6.0 E	600	MA	N	AVERAGE. Poor form.	C	6.0
T15	Ash	16.0	9.0	800 + 600	M	N	AVERAGE. Two stems forming single prominent crown. Rope embedded in lower limb W.	A	8.0
T16	Ash	15.0	7.0	MS (=1000)	M	N	AVERAGE. Old *Ganoderma* bracket at base N. (Indicates probable internal decay) Prominent specimen in reasonable condition.	B	8.0
T17	Beech	8.0	ECC 6.0 S	350	MA	N	POOR. Suppressed.	C	4.5
T18	Ash	13.0	6.0	650	MA	N	AVERAGE. Crown weighted E.	B	6.0
T19	Ash	12.0	6.0	MS (=500)	MA	N	AVERAGE. W stem regrown from 4m and vulnerable to breakage in high winds.	C	4.5
T20	Oak	8.0	ECC 6.0 E&S	500	MA	L	POOR. Suppressed to W, major deadwood.	C	7.5
T21	Rowan *(Sorbus aucuparia)*	6.0	ECC 4.0 E	300	M	N	POOR. Severe basal decay. **Liable to collapse.**	D	—
G22	2 no. Hawthorn *(Crataegus monogyna)*	4.0	3.0	MS (=400)	M	N	POOR. Short safe life expectancy.	C	6.0
T23	Oak	14.0	8.0	700	M	N	GOOD. Prominent specimen.	A	6.0
T24	Elder *(Sambucus nigra)*	3.0	2.0	MS (=300)	M	N	AVERAGE. Short lived shrub.	C	4.0
T25	Hawthorn	4.0	3.0	MS (=500)	OM	L	POOR. Hedgerow remnant. Basal decay. In decline.	D	—
G26	5 no. Hazel *(Corylus avellana)*	5.0	4.0	MS (=500)	M	N	AVERAGE. Large shrubs. Hedgerow remnant.	C	6.0
T27	Ash	15.0	7.0	1000	M	N	AVERAGE. Prominent on end of line. Reasonable condition for age.	B	8.0
T28	Rowan	4.0	3.0	150	M	N	POOR. Severe basal decay. **Liable to collapse.**	D	—
T29	Hawthorn	9.0	4.0	650	M	N	GOOD. Large and good shape for species.	B	6.0
T30	Silver Birch	15.0	9.0	MS (=1000)	M	N	AVERAGE. Cavity in base but otherwise reasonable condition for age. Large for species.	B	8.0
T31	Silver Birch	14.0	ECC 4.0 W	900	M	N	AVERAGE. Cavity in base but otherwise reasonable condition for age. Large for species.	B	8.0

No	Species	[illegible]	Rad	DBH	Age Class	Vig	Condition	Ret Cat	TPZ
T32	Silver Birch	5.0	2.0	300	OM	L	POOR. Severe basal decay. **Partly collapsed.**	D	—
T33	Hazel	4.0	3.0	MS (=500)	M	N	AVERAGE. Large shrub. Basal decay.	C	6.0
G34	3 no. Rowan	5.0	4.0	500	OM	L	POOR. Severe basal decay. **Liable to collapse.**	D	—
T35	Silver Birch	8.0	3.0	250	Y	N	GOOD. Rooted in old wall but shapely specimen.	B	3.0
T36	Hazel	4.0	2.0	MS (=400)	M	N	AVERAGE. Hedgerow remnant. Decay in main stem.	C	6.0
T37	Rowan	5.0	4.0	400 + 250	OM	L	POOR. Severe basal decay. **Liable to collapse.**	D	—
T38	Hazel	6.0	4.0	400	M	N	POOR. Basal decay. Short safe life expectancy.	D	—
T39	Ash	13.0	5.0	MS (=1000)	OM	L	POOR. Badly cankered with upper crown dieback. Will not recover. **Liable to breakage.**	D	—
G40	2 no. Hawthorn	7.0	3.0	500	M	N	AVERAGE. Hedgerow remnants.	C	6.0
G41	3 no. Hazel	7.0	4.0	MS (=500)	M	N	AVERAGE. Hedgerow remnants	C	6.0
T42	Ash	15.0	5.0	700	OM	L	POOR. Growing on swollen decayed base. Woodpecker hole at 4m indicates internal decay in main stem. Dieback throughout. **Becoming unsafe.**	D	—
T43	Ash	9.0	4.0	300	Y	N	GOOD. (Garden specimen)	B	3.0
T44	Sycamore *(Acer pseudoplatanus)*	16.0	7.0	900	M	N	GOOD. Shapely specimen, prominent near road.	A	8.0
T45	Sycamore	9.0	ECC 4.0 E	350	Y	N	AVERAGE. One-sided crown due to pruning back from overhead cables.	C	3.0
T46	Oak	11.0	7.0	800	MA	N	AVERAGE. Prominent on edge of ravine.	A	6.0
T47	Beech	16.0	7.0	600	MA	N	AVERAGE. Collapsed across stream, supported on broken limb. **Will eventually collapse completely.**	D	—
T48	Beech	16.0	7.0	800	MA	N	GOOD. Rooted on edge of culvert wing wall.	B	6.0
T49	Beech	18.0	8.0	1000	M	N	GOOD. Large prominent specimen.	A	8.0
T50	Beech	18.0	8.0	1200	M	N	AVERAGE. Large well-shaped specimen on roadside. Four young *Ganoderma* brackets emerging from basal flutes E. *Ustulina* fruiting on exposed root E. (Indicate probable internal decay). Possible structural weakness in main fork. **Requires monitoring for safety.**	B	8.0

	Species	Ht	Rad	DBH	Age Class	Vig	Condition	Ret Cat	TPZ
T51	Beech	16.0	ECC 8.0 N	800	M	N	AVERAGE. Basal decay but good strong reaction growth. Currently sheltered by neighbours.	B	8.0
T52	Oak	15.0	ECC 8.0 N	800	MA	N	AVERAGE. One-sided crown suppressed S by T50.	B	8.0
T53	Beech	17.0	ECC 6.0 N	600	MA	N	POOR. Large wound 4m S. Possible cavities 5m & 7m W. Forms single crown with T54. **Requires monitoring for safety.**	C	6.0
T54	Beech	16.0	ECC 6.0 S	750	MA	N	POOR. Basal cavity. Possible cavity 6/7m N. Forms single crown with T53. **Requires monitoring for safety.**	C	6.0
T55	Sycamore	8.0	6.0	150	Y	L	POOR. Suppressed.	C	3.0
T56	Beech	18.0	7.0	900	M	N	GOOD. Shapely specimen but roots badly eroded. **Requires monitoring for safety.**	B	8.0
T57	Hawthorn	5.0	2.0	MS (=300)	OM	L	POOR. In decline.	C	6.0
T58	Beech	16.0	ECC 6.0 S	350	MA	L	POOR. Suppressed.	C	7.5
T59	Beech	18.0	10.0	MS (=1200)	M	N	GOOD. Prominent specimen.	A	8.0
T60	Oak	10.0	ECC 6.0 N	300	Y	L	POOR. Suppressed, distorted crown.	C	4.5
T61	Ash	14.0	6.0	750	MA	L	POOR. Basal decay. Badly cankered. Short safe life expectancy.	D	—
T62	Hawthorn	5.0	3.0	350	M	N	AVERAGE. Hedgerow remnant.	C	4.5
T63	Hawthorn	6.0	2.0	200	M	N	POOR. Crown severely damaged by falling tree.	D	—
T64	Rowan	6.0	4.0	600	M	N	POOR. Severe basal decay. **Liable to collapse.**	D	—
T65	Silver Birch	10.0	4.0	350 + 150	M	N	AVERAGE. Short life expectancy.	C	6.0
T66	Elder	7.0	3.0	350	M	N	AVERAGE. Short-lived shrub.	C	6.0
T67	Beech	20.0	12.0	1000	M	N	GOOD. Large prominent specimen.	A	8.0

Wildwood Consulting

◆ *Wildlife & Countryside Specialists* ◆

Report: **Bat potential survey of barn and surrounding farmland at New Road Farm**

Site location: **New Road Farm, Varteg Road, Blaenavon**

Client: **Excal Limited**

Date of Surveys: **25th February 2005**

Report date: **19th April 2005**

Report No. **02051**

Background

A development is proposed within an area of agricultural land at Forgeside to the south of Blaenavon, including conversion of a barn . A stream runs through a ravine that crosses the north western corner of the site and the farmhouse and farm buildings are on the western edge. This report describes a base line survey made for bats and barn owls in February 2005.

Methodology

a) Barn

This building is of stone and lime plaster construction. The south wall has been extensively repaired with modern block work. The roof is constructed from corrugated metal and the barn is connected to a single storey block built hay store. (See photographs at appendix 1)

The whole building was internally and externally inspected for bats using a high powered lamp. The potential of the building to accommodate bats was assessed along with a search for signs (e.g. droppings, moth wings, staining) or bats that are present.

b) Agricultural land

The site is approximately five hectares in size on a south-east facing slope. It is currently grazed by sheep. There are mature trees along some of the field boundaries and alongside the ravine. (see photos)

All of the mature trees on the site were assessed for their potential for bat use. This included the use of a high-powered lamp to investigate holes and cavities. As the survey took place during the winter it was not considered appropriate to undertake a bat detector survey.

Richard Crompton, BSc, MIEEM (*Proprietor*)
65 Bryncastell, Bow Street, Aberystwyth, SY24 5DF
Tel / Fax 01970 822188 E-mail: richard@wildwoodconsulting.co.uk

Results

a) Barn

This building offers low potential for use by bats. A gap in the lintel over the window slit in the north wall offers some potential and should be treated with care during conversion works. No signs of Barn owls were found.

b) Agricultural land

All of the mature trees on the site offer some potential for use by bats. As many of these should be retained as possible during the development of this site. The main tree species of interest include oak, ash and beech, as well as silver birch and hawthorn.

Where smaller trees are to be felled it is recommended that this be done carefully and any hollow sections of timber be allowed to remain on the ground undisturbed for 24 hours after felling. If any mature trees have to be felled it is strongly recommended that further survey work and/or a licensed bat worker is on hand to advise felling and take-down, and also to deal with any grounded bats found.

In addition to the trees a drainage culvert at the north end of the ravine was inspected. This exhibits very high roosting potential for bat species such as Daubenton's bats. Any development work affecting this culvert should be preceded by a detailed survey of the structure and its use by bats.

Survey limitations

Bats are a difficult group to survey for and it is usually signs of their activity rather than actual presence that indicates the existence of a bat roost. During the Winter all British bat species are in their least active period. Consequently field signs can be hard to find. However, the potential of the building and trees to house bat roosts is also a useful factor. The level of survey effort was adjusted to account for this seasonal difficulty.

Conclusion

1) The Barn

This building exhibits low potential for use by bats and barn owls and no signs were found. It is therefore suggested that no further survey work or licensing is required.

2) Trees

The site has many mature trees offering very high potential for use by bats. It is strongly recommended that further survey work is undertaken if the proposed development is likely to affect any of these trees. A precautionary treatment for smaller trees is also suggested in line with good practice.

3) Culvert

The culvert at the northern end of the ravine exhibits excellent potential for bat use and should be thoroughly investigated if the proposed development is likely to affect it in any way.

Richard Crompton
Wildwood Consulting

Appendix 1 – photographs

South side of barn

North side of barn

Ravine from south

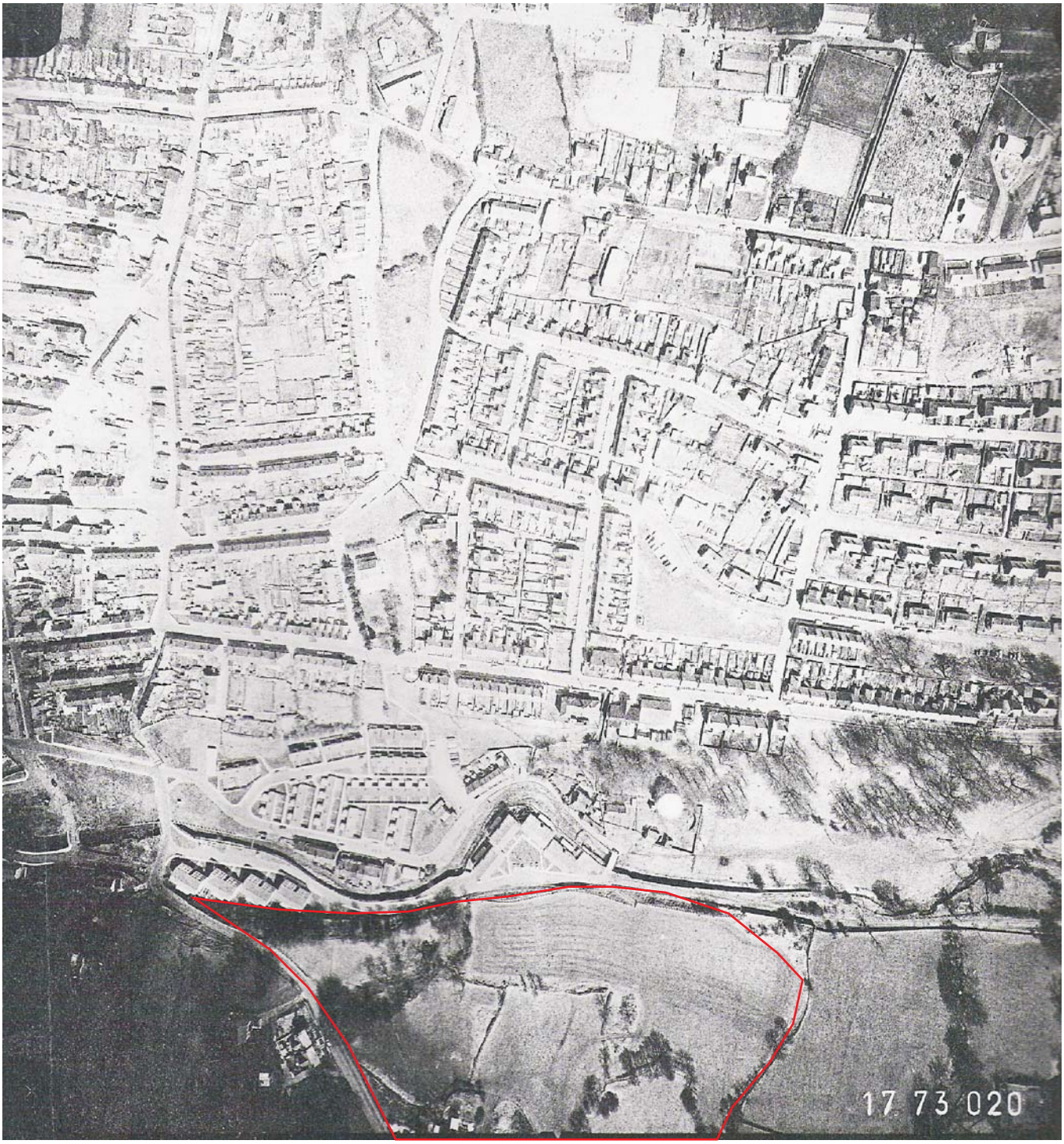
Culvert

Inside ravine

Facing north-east across fields

APPENDIX E

Aerial Photographs



Notes

Site boundary

New Road Farm, Varteg Road, Blaenavon	Aerial photograph taken 14/04/73
Drawn: HJ	Checked: SW
Date: March 2005	
Drawing No: ES1534.ES.Aerial.01	

EXCAL Limited

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Ammanford
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Notes

— Site boundary

New Road Farm, Varteg Road, Blaenavon	Aerial photograph taken June1984
Drawn: HJ	Checked: SW
Date: March 2005	
Drawing No: ES1534.ES.Aerial.02	

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Notes

— Site boundary

New Road Farm, Varteg Road, Blaenavon	Aerial photograph taken 12/05/51
Drawn: HJ	Checked: SW
Date: March 2005	
Drawing No: ES1534.ES.Aerial.03	

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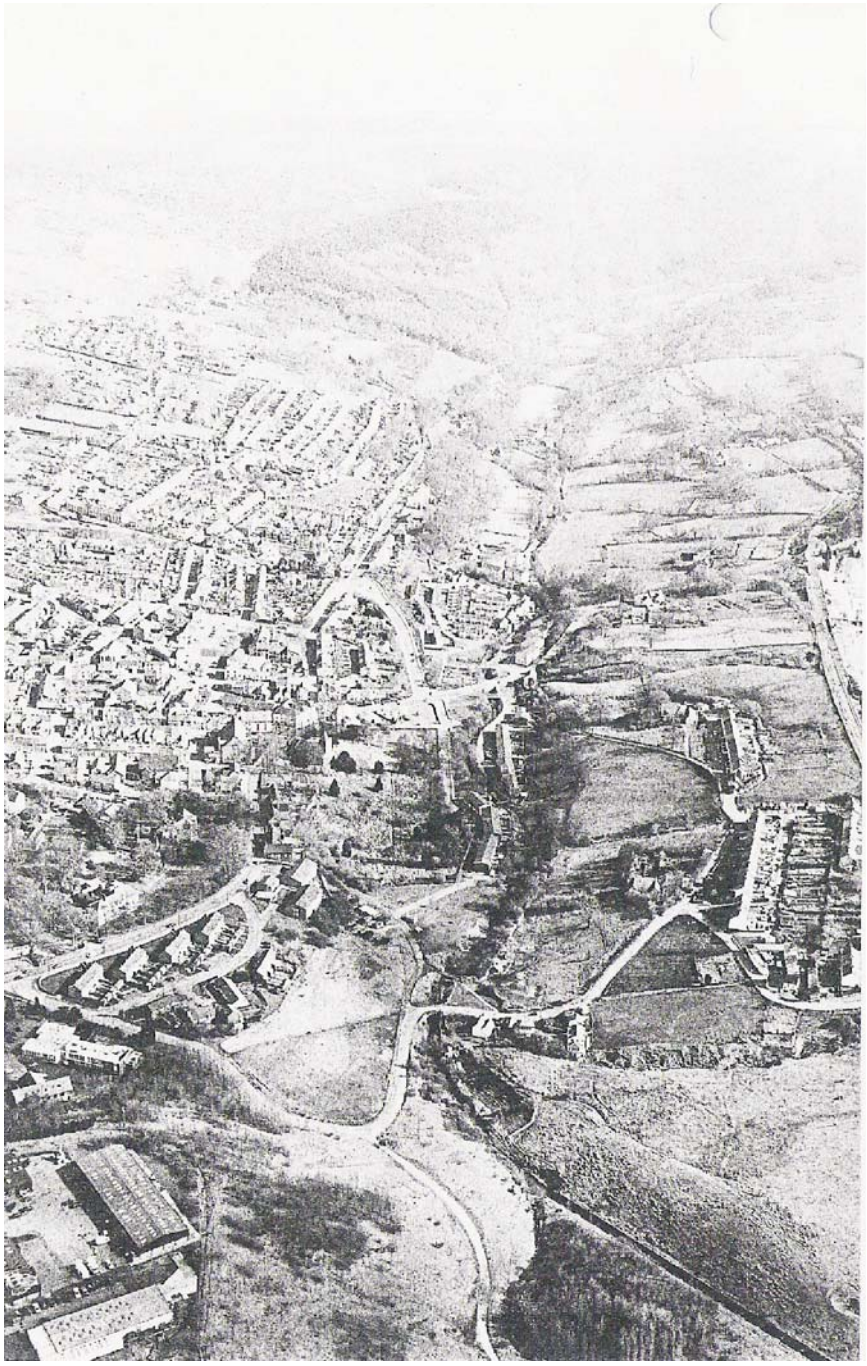

Notes

— Site boundary

New Road Farm, Varteg Road, Blaenavon	Aerial photograph Date unknown
Drawn: HJ	Checked: SW
Date: March 2005	
Drawing No: ES1534.ES.Aerial.04	

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APPENDIX F

Visual Impact Assessment Plates

L1 - New houses on Oakfield Terrace

L2 - No 1, 2 and 4 Oakfield Terrace

Job:
New Road Farm, Varteg Road, Blaenavon

Title:
Visual Impact Assessment Plates

Date: March 2005

Scale: NTS

Drawn by: HJ

Checked by: SW

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Drawing number: ES1534.ES.Plate01

Revision no: | **Date:**

Proposed site entrance from the north

L3 - View from Riverside Bungalow

Proposed site entrance from the north

L4 - View from Avon House

Job:
New Road Farm, Varteg Road, Blaenavon

Title:
Visual Impact Assessment Plates

Date: March 2005

Scale: NTS

Drawn by: HJ

Checked by: HJ

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Drawing number: ES1534.ES.Plate02

Revision no: **Date:**

Job:

Title:

Date: March 2005

Scale: NTS

Drawn by: HJ

Checked by: SW

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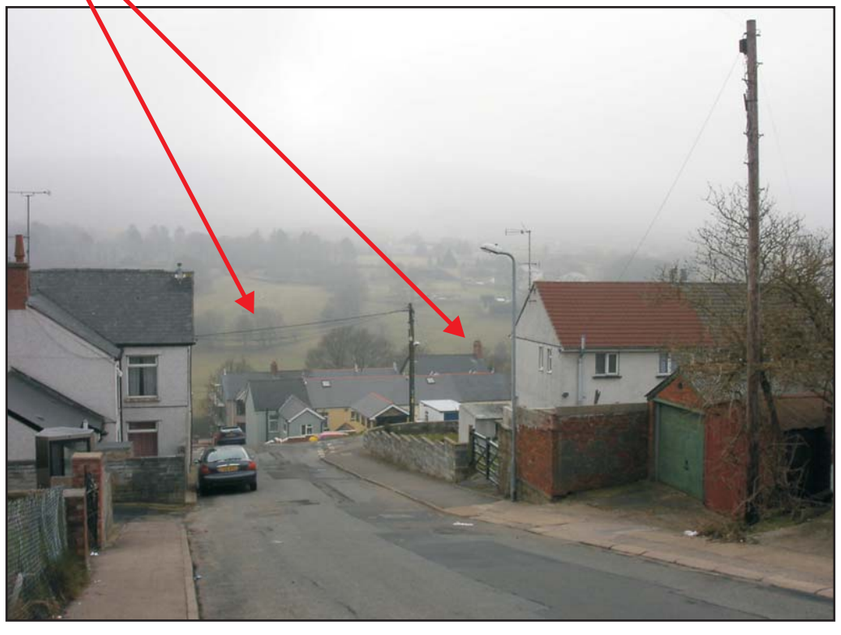
Drawing number: ES1534.ES.Plate03

Revision no: | Date:

Proposed site

L7 - View of the site from Avondale

Proposed site



L8 - View from junction between Capel Newydd Avenue and Coed Road Junction

Proposed site

Proposed site

L9 - View of the site from Griffin Avenue

Job:
New Road Farm, Varteg Road, Blaenavon

Title:
Visual Impact Assessment Plates

Date: March 2005

Scale: NTS

Drawn by: HJ

Checked by: SW

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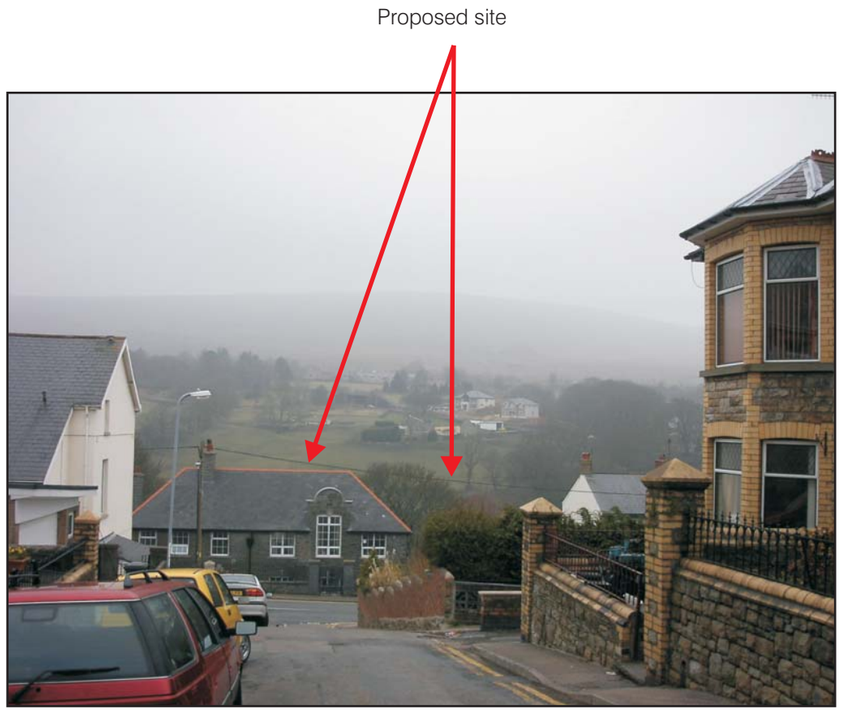
Drawing number: ES1534.ES.Plate04

Revision no: **Date:**



L10 - View of the site from Greenfield Place

L11 - View of the site from eastern area of Capel Newydd Avenue

L12 - View of the site from Glade Bungalow on Cwmavon Road

Job:
New Road Farm, Varteg Road, Blaenavon

Title:
Visual Impact Assessment Plates

Date: March 2005

Scale: NTS

Drawn by: HJ

Checked by: SW

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Drawing number: ES1534.ES.Plate05

Revision no: **Date:**

Proposed site

L13- View of the site from James Street

Proposed site

L14 - View of the site from Llanover Road Allotments and
Lyngene and Llanover Villa on Llanover Road

Proposed site

L15 - View of the site from Coed Road and Llanover Road Junction

Job:
New Road Farm, Varteg Road, Blaenavon

Title:
Visual Impact Assessment Plates

Date: April 2005

Scale: NTS

Drawn by: HJ

Checked by: SW

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Drawing number: ES1534.ES.Plate06

Revision no: **Date:**

L16 - View of the site from Coed Road and Capel Newydd Avenue Junction

L17 - View of the site from the western area of Capel Newydd Avenue

L18 - View of the site from Cloed Llwyd Close

L19 - View of the site from Giles Road

Job:
New Road Farm, Varteg Road, Blaenavon

Title:
Visual Impact Assessment Plates

Date: April 2005

Scale: NTS

Drawn by: HJ

Checked by: SW

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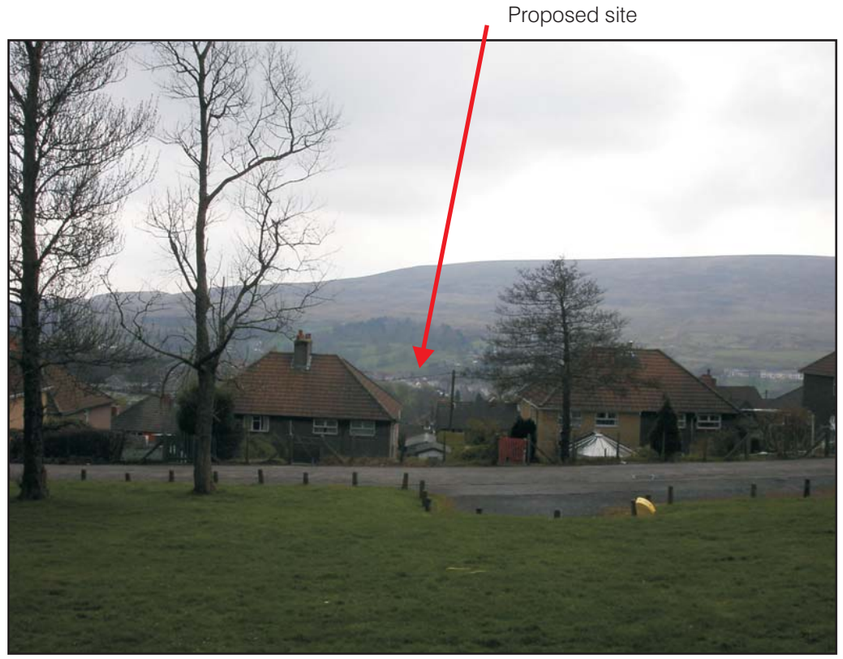
Drawing number: ES1534.ES.Plate07

Revision no:	**Date:**



L20 - View of the site from Elgan Avenue House numbers 87 - 100

L21 - View of the site from Rifle Street

Proposed site

L22 - View of the site from Elgan Avenue house numbers 131 - 144

Job:
New Road Farm, Varteg Road, Blaenavon

Title:
Visual Impact Assessment Plates

Date: April 2005

Scale: NTS

Drawn by: HJ

Checked by: SW

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Website: www.excaluk.com E-mail: reception@excaluk.com

Drawing number: ES1534.ES.Plate08

Revision no: **Date:**

APPENDIX G

Visual Impact Assessment Forms

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L1	Address/Location Oakfield Terrace (2 new houses)									Distance from site: 10m
Existing view										
Nature of property/s	Bungalow		Farm		House √		Other			
Orientation of property East facing										
Existing view of site					Prominence of					
Open √	Direct √	Oblique	Partly screened	Fully screened	High √	Moderate	Low	Insignificant	Comments	
Comments Open view of the southern area of the site										
Sensitivity of view point	High √	Medium	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High √	Medium	Low					
Visual Impact Assessment										
Visual change	Severe		Moderate		Slight		Negligible			
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change	
On a typical day during construction period		√								
On a winters day, year 1 following construction		√								
On a summers day, year 15 following completion		√								
Significance of visual change	High		Moderate		Low		No significant impacts			
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse				
On a typical day during construction period		√								
On a winters day, year 1 following construction		√								
On a summers day, year 15 following completion				√						
Comments										

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L2	Address/Location Oakfield Terrace – Oakfield No 1, No 2 and No 3									Distance from site: 10m
Existing view										
Nature of property/s	Bungalow		Farm		House √		Other			
Orientation of property										
Existing view of site						Prominence of				
Open √	Direct √	Oblique	Partly screened	Fully screened		High √	Moderate	Low	Insignificant	Comments
Comments These houses have open views of the entire site										
Sensitivity of view point	High √	Medium	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High √	Medium	Low					
Visual Impact Assessment										
Visual change	Severe		Moderate		Slight		Negligible			
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change	
On a typical day during construction period		√								
On a winters day, year 1 following construction		√								
On a summers day, year 15 following completion		√								
Significance of visual change	High		Moderate		Low		No significant impacts			
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse				
On a typical day during construction period		√								
On a winters day, year 1 following construction		√								
On a summers day, year 15 following completion				√						
Comments										

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L3	Address/Location Riverside Bungalow									Distance from site: 35m
Existing view										
Nature of property/s	Bungalow √		Farm		House		Other			
Orientation of property										
Existing view of site						Prominence of				
Open	Direct	Oblique	Partly screened √	Fully screened		High √	Moderate	Low	Insignificant	Comments
Comments The bungalow is situated below the site. This house has a screened view of the main area of the site. However, the houses on the northern boundary of the site will be seen directly from this location.										
Sensitivity of view point	High √		Medium		Low		Comments			
Nature of change										
Elements of existing site			Predicted visibility of construction activity				New elements visible following construction			
			High		Medium√	Low				
Visual Impact Assessment										
Visual change	Severe		Moderate		Slight		Negligible			
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change	
On a typical day during construction period				√						
On a winters day, year 1 following construction		√								
On a summers day, year 15 following completion				√						
Significance of visual change	High		Moderate		Low		No significant impacts			
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse				
On a typical day during construction period				√						
On a winters day, year 1 following construction		√								
On a summers day, year 15 following completion				√						
Comments										

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L4	Address/Location Avon House									Distance from site: 50m
Existing view										
Nature of property/s	Bungalow		Farm		House √		Other			
Orientation of property Faces the northern area of the site										
Existing view of site					Prominence of					
Open	Direct	Oblique	Partly screened √	Fully screened	High	Moderate √	Low	Insignificant	Comments	
Comments The site is partially screened from the site by a tree. The house is situated below the site and therefore there is only a partially screened view of the northern area of site.										

Sensitivity of view point	High	Medium √	Low	Comments

Nature of change

Elements of existing site			Predicted visibility of construction activity			New elements visible following construction	
			High	Medium√	Low		

Visual Impact Assessment

Visual change	Severe		Moderate		Slight		Negligible		
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change
On a typical day during construction period				√					
On a winters day, year 1 following construction				√					
On a summers day, year 15 following completion						√			

Significance of visual change	High		Moderate		Low		No significant impacts
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse	
On a typical day during construction period				√			
On a winters day, year 1 following construction				√			
On a summers day, year 15 following completion						√	

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L5	Address/Location Flats on Riverside Drive									Distance from site: 15m
Existing view										
Nature of property/s	Bungalow		Farm		House			Other √		
Orientation of property The flats face the northern area of the site.										
Existing view of site						Prominence of				
Open	Direct	Oblique	Partly screened	Fully screened √		High	Moderate √	Low	Insignificant	Comments
Comments The site lies on a bank high above the flats. The upper floors of the site may have increased views of the site.										
Sensitivity of view point	High √		Medium		Low		Comments			
Nature of change										
Elements of existing site			Predicted visibility of construction activity				New elements visible following construction			
			High √		Medium		Low			
Visual Impact Assessment										
Visual change	Severe		Moderate		Slight		Negligible			
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change	
On a typical day during construction period		√								
On a winters day, year 1 following construction		√								
On a summers day, year 15 following completion				√						
Significance of visual change	High		Moderate		Low		No significant impacts			
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse				
On a typical day during construction period		√								
On a winters day, year 1 following construction		√								
On a summers day, year 15 following completion				√						
Comments										

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L6	Address/Location Brynavon									Distance from site: 105m
Existing view										
Nature of property/s	Bungalow		Farm		House √		Other			
Orientation of property The houses in this area are south and east facing.										
Existing view of site					Prominence of					
Open	Direct	Oblique	Partly screened √	Fully screened	High	Moderate √	Low	Insignificant	Comments	
Comments The site is partially screened from this area by trees lying on the northern boundary of the site.										
Sensitivity of view point	High	Medium √	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High	Medium√	Low					

Visual Impact Assessment

Visual change	Severe		Moderate		Slight		Negligible		
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change
On a typical day during construction period		√							
On a winters day, year 1 following construction		√							
On a summers day, year 15 following completion				√					

Significance of visual change	High		Moderate		Low		No significant impacts
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse	
On a typical day during construction period		√					
On a winters day, year 1 following construction		√					
On a summers day, year 15 following completion				√			

Comments

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L7	Address/Location Avondale Housing									Distance from site: 95m
Existing view										
Nature of property/s	Bungalow		Farm		House √				Other	
Orientation of property South facing properties										
Existing view of site						Prominence of				
Open	Direct	Oblique	Partly screened √	Fully screened		High	Moderate	Low	Insignificant	Comments
Comments Open view of the northern area of the site										
Sensitivity of view point	High	Medium √	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High	Medium√	Low					

Visual Impact Assessment

Visual change	Severe		Moderate		Slight		Negligible		
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change
On a typical day during construction period		√							
On a winters day, year 1 following construction		√							
On a summers day, year 15 following completion				√					

Significance of visual change	High		Moderate		Low		No significant impacts
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse	
On a typical day during construction period		√					
On a winters day, year 1 following construction		√					
On a summers day, year 15 following completion				√			

Comments

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L8	Address/Location Capel Newydd Avenue and Coed Wood Road Junction									Distance from site: 200m
Existing view										
Nature of property/s	Bungalow		Farm		House √		Other			
Orientation of property Houses are east and west facing										
Existing view of site					Prominence of					
Open √	Direct √	Oblique	Partly screened	Fully screened	High √	Moderate	Low	Insignificant	Comments	
Comments Due to the orientation of the properties the views from the houses of the site is not direct. However, outside of the properties there is a direct, open view of the site. This assessment deals with views from outside of the house but within the property boundary.										
Sensitivity of view point	High √	Medium	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High √	Medium	Low					

Visual Impact Assessment

Visual change	Severe		Moderate		Slight		Negligible		
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change
On a typical day during construction period		√							
On a winters day, year 1 following construction		√							
On a summers day, year 15 following completion		√							

Significance of visual change	High		Moderate		Low		No significant impacts
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse	
On a typical day during construction period		√					
On a winters day, year 1 following construction		√					
On a summers day, year 15 following completion		√					
Comments							

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L9	Address/Location Griffin Avenue									Distance from site: 200m
Existing view										
Nature of property/s	Bungalow		Farm		House √				Other	
Orientation of property Houses are south facing and directly, openly overlook the site.										
Existing view of site						Prominence of				
Open √	Direct √	Oblique	Partly screened	Fully screened		High √	Moderate	Low	Insignificant	Comments
Comments The front rooms of the houses have a direct and open view of the site.										
Sensitivity of view point	High √	Medium	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High √	Medium	Low					
Visual Impact Assessment										
Visual change	Severe		Moderate		Slight		Negligible			
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change	
On a typical day during construction period		√								
On a winters day, year 1 following construction		√								
On a summers day, year 15 following completion		√								
Significance of visual change	High		Moderate		Low		No significant impacts			
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse				
On a typical day during construction period		√								
On a winters day, year 1 following construction		√								
On a summers day, year 15 following completion		√								
Comments										

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L10	Address/Location Greenfield Place									Distance from site: 180m
Existing view										
Nature of property/s	Bungalow		Farm		House √		Other			
Orientation of property Houses are east and west facing										
Existing view of site					Prominence of					
Open √	Direct √	Oblique	Partly screened	Fully screened	High √	Moderate	Low	Insignificant	Comments	
Comments Due to the orientation of the properties the views from the houses of the site is not direct. However, outside of the properties there is a direct, open view of the site. This assessment deals with views from outside of the house but within the property boundary.										
Sensitivity of view point	High √	Medium	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High √	Medium	Low					
Visual Impact Assessment										

Visual change	Severe		Moderate		Slight		Negligible		
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change
On a typical day during construction period		√							
On a winters day, year 1 following construction		√							
On a summers day, year 15 following completion		√							

Significance of visual change	High		Moderate		Low		No significant impacts
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse	
On a typical day during construction period		√					
On a winters day, year 1 following construction		√					
On a summers day, year 15 following completion		√					

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L11	Address/Location Eastern area of Capel Newydd Avenue									Distance from site: 175m
Existing view										
Nature of property/s	Bungalow		Farm		House √		Other			
Orientation of property Properties are north east facing, the rear of the properties however, overlook the site.										
Existing view of site						Prominence of				
Open	Direct	Oblique	Partly screened	Fully screened		High	Moderate	Low	Insignificant	Comments
Comments										
Sensitivity of view point	High	Medium	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High	Medium	Low					

Visual Impact Assessment									
Visual change	Severe		Moderate		Slight		Negligible		
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change
On a typical day during construction period									
On a winters day, year 1 following construction									
On a summers day, year 15 following completion									

Significance of visual change	High		Moderate		Low		No significant impacts
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse	
On a typical day during construction period							
On a winters day, year 1 following construction							
On a summers day, year 15 following completion							
Comments							

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L12	Address/Location Glade Bungalow on Cwmavon Road									Distance from site: 140m
Existing view										
Nature of property/s	Bungalow √		Farm		House		Other			
Orientation of property The property is south west facing.										
Existing view of site					Prominence of					
Open	Direct	Oblique	Partly screened √	Fully screened	High	Moderate √	Low	Insignificant	Comments	
Comments The property'e view of the site is partially screened by trees.										
Sensitivity of view point	High	Medium √	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High	Medium√	Low					

Visual Impact Assessment									
Visual change	Severe		Moderate		Slight		Negligible		
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change
On a typical day during construction period		√							
On a winters day, year 1 following construction		√							
On a summers day, year 15 following completion				√					

Significance of visual change	High		Moderate		Low		No significant impacts
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse	
On a typical day during construction period		√					
On a winters day, year 1 following construction		√					
On a summers day, year 15 following completion				√			
Comments							

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L13	Address/Location James Street									Distance from site: 195m
Existing view										
Nature of property/s	Bungalow		Farm		House √ (Terraced housing)			Other		
Orientation of property The properties are south west facing, overlooking the site.										
Existing view of site					Prominence of					
Open	Direct	Oblique	Partly screened √	Fully screened	High	Moderate	Low √	Insignificant	Comments	
Comments Trees partially screen the view of the site from the houses.										
Sensitivity of view point	High	Medium	Low √	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High	Medium	Low					

Visual Impact Assessment

Visual change	Severe		Moderate		Slight		Negligible		
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change
On a typical day during construction period						√			
On a winters day, year 1 following construction						√			
On a summers day, year 15 following completion								√	

Significance of visual change	High		Moderate		Low		No significant impacts
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse	
On a typical day during construction period						√	
On a winters day, year 1 following construction						√	
On a summers day, year 15 following completion							√

Comments

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L14	Address/Location Llanover Road Allotments, Lyngene and Llanover Villa on Llanover Road									Distance from site: 220m
Existing view										
Nature of property/s	Bungalow		Farm		House Two detached houses			Other √ (Allotments)		
Orientation of property Both properties and the allotments are south west facing, overlooking the site.										
Existing view of site					Prominence of					
Open √	Direct √	Oblique	Partly screened √	Fully screened	High	Moderate √	Low	Insignificant	Comments	
Comments : Trees and houses situated lower that these properties partially screen the view of the site from Lyngene and Llanover Villa houses and the allotments.										
Sensitivity of view point	High	Medium √	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High	Medium√	Low					
Visual Impact Assessment										
Visual change	Severe		Moderate		Slight		Negligible			
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change	
On a typical day during construction period				√						
On a winters day, year 1 following construction				√						
On a summers day, year 15 following completion				√						
Significance of visual change	High		Moderate		Low		No significant impacts			
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse				
On a typical day during construction period				√						
On a winters day, year 1 following construction				√						
On a summers day, year 15 following completion				√						
Comments										

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L15	Address/Location Coed Road and Llanover Road Junction									Distance from site: 175m
Existing view										
Nature of property/s	Bungalow		Farm		House			Other		
Orientation of property The properties are south west facing, overlooking the site.										
Existing view of site						Prominence of				
Open √	Direct √	Oblique	Partly screened √	Fully screened		High	Moderate √	Low	Insignificant	Comments
Comments Houses located lower down than those on Heol y Coed partially screen the view of the site.										
Sensitivity of view point	High √	Medium	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High √	Medium	Low					

Visual Impact Assessment

Visual change	Severe		Moderate		Slight		Negligible		
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change
On a typical day during construction period		√							
On a winters day, year 1 following construction		√							
On a summers day, year 15 following completion		√							

Significance of visual change	High		Moderate		Low		No significant impacts
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse	
On a typical day during construction period		√					
On a winters day, year 1 following construction		√					
On a summers day, year 15 following completion		√					

Comments

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L16	Address/Location Coed Road and Capel Newydd Avenue Junction									Distance from site: 150m
Existing view										
Nature of property/s	Bungalow		Farm		House √		Other			
Orientation of property The properties are south west facing, overlooking the site.										
Existing view of site						Prominence of				
Open √	Direct √	Oblique	Partly screened √	Fully screened		High	Moderate	Low	Insignificant	Comments
Comments Trees partially screen the view of the site from the houses.										
Sensitivity of view point	High √	Medium	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High √	Medium	Low					

Visual Impact Assessment									
Visual change	Severe		Moderate		Slight		Negligible		
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change
On a typical day during construction period		√							
On a winters day, year 1 following construction		√							
On a summers day, year 15 following completion		√							

Significance of visual change	High		Moderate		Low		No significant impacts
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse	
On a typical day during construction period		√					
On a winters day, year 1 following construction		√					
On a summers day, year 15 following completion		√					
Comments							

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L17	Address/Location Western area of Capel Newydd Avenue									Distance from site: 200m
Existing view										
Nature of property/s	Bungalow		Farm		House √		Other			
Orientation of property The properties are south west facing, overlooking the site.										
Existing view of site					Prominence of					
Open	Direct √	Oblique	Partly screened √	Fully screened	High	Moderate	Low	Insignificant	Comments	
Comments Trees partially screen the view of the site from the houses.										
Sensitivity of view point	High	Medium √	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High	Medium√	Low					
Visual Impact Assessment										
Visual change	Severe		Moderate		Slight		Negligible			
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change	
On a typical day during construction period				√						
On a winters day, year 1 following construction				√						
On a summers day, year 15 following completion						√				
Significance of visual change	High		Moderate		Low		No significant impacts			
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse				
On a typical day during construction period				√						
On a winters day, year 1 following construction				√						
On a summers day, year 15 following completion						√				
Comments										

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L18	Address/Location Coed Llwyd Close									Distance from site: 300m
Existing view										
Nature of property/s	Bungalow		Farm		House √		Other			
Orientation of property The properties are south west facing, overlooking the site.										
Existing view of site						Prominence of				
Open	Direct √	Oblique	Partly screened	Fully screened √		High	Moderate	Low √	Insignificant	Comments
Comments Trees partially screen the view of the site from the houses.										
Sensitivity of view point	High	Medium	Low √	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High	Medium	Low√					
Visual Impact Assessment										
Visual change	Severe		Moderate		Slight		Negligible			
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change	
On a typical day during construction period						√				
On a winters day, year 1 following construction						√				
On a summers day, year 15 following completion								√		
Significance of visual change	High		Moderate		Low		No significant impacts			
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse				
On a typical day during construction period				√						
On a winters day, year 1 following construction				√						
On a summers day, year 15 following completion						√				
Comments										

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L19	Address/Location Giles Road									Distance from site: 600m
Existing view										
Nature of property/s	Bungalow		Farm		House √		Other			
Orientation of property The properties are south west facing, overlooking the site.										
Existing view of site						Prominence of				
Open √	Direct √	Oblique	Partly screened √	Fully screened		High	Moderate	Low	Insignificant	Comments
Comments Trees and other houess partially screen the view of the site from the houses.										
Sensitivity of view point	High √	Medium	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High √	Medium	Low					
Visual Impact Assessment										

Visual change	Severe		Moderate		Slight		Negligible		
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change
On a typical day during construction period		√							
On a winters day, year 1 following construction		√							
On a summers day, year 15 following completion				√					

Significance of visual change	High		Moderate		Low		No significant impacts
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse	
On a typical day during construction period		√					
On a winters day, year 1 following construction		√					
On a summers day, year 15 following completion				√			

Comments

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L20	Address/Location Elgan Avenue House numbers 87 - 100									Distance from site: 1050m
Existing view										
Nature of property/s	Bungalow		Farm		House √			Other		
Orientation of property The properties are south west facing, overlooking the site.										
Existing view of site						Prominence of				
Open	Direct √	Oblique	Partly screened	Fully screened √		High	Moderate	Low	Insignificant	Comments
Comments Houses screen the view of the site from the houses.										
Sensitivity of view point	High	Medium	Low √	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High	Medium	Low√					
Visual Impact Assessment										
Visual change	Severe		Moderate		Slight		Negligible			
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change	
On a typical day during construction period						√				
On a winters day, year 1 following construction						√				
On a summers day, year 15 following completion						√				
Significance of visual change	High		Moderate		Low		No significant impacts			
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse				
On a typical day during construction period						√				
On a winters day, year 1 following construction						√				
On a summers day, year 15 following completion						√				
Comments										

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L21	Address/Location Rifle Street									Distance from site: 1000m
Existing view										
Nature of property/s	Bungalow		Farm		House √		Other			
Orientation of property The properties are south west facing, overlooking the site.										
Existing view of site						Prominence of				
Open	Direct √	Oblique	Partly screened √	Fully screened		High	Moderate √	Low	Insignificant	Comments
Comments Houses partially screen the view of the site from the houses.										
Sensitivity of view point	High	Medium √	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High	Medium√	Low					
Visual Impact Assessment										
Visual change	Severe		Moderate		Slight		Negligible			
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change	
On a typical day during construction period				√						
On a winters day, year 1 following construction				√						
On a summers day, year 15 following completion				√						
Significance of visual change	High		Moderate		Low		No significant impacts			
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse				
On a typical day during construction period				√						
On a winters day, year 1 following construction				√						
On a summers day, year 15 following completion				√						
Comments										

VISUAL IMPACT ASSESSMENT										**DATE** 20/03/05
Reference L22	Address/Location Elgan Avenue House numbers 131 - 144									Distance from site: 1050m
Existing view										
Nature of property/s	Bungalow		Farm		House √		Other			
Orientation of property The properties are south west facing, overlooking the site.										
Existing view of site						Prominence of				
Open √	Direct √	Oblique	Partly screened	Fully screened	High	Moderate	Low	Insignificant	Comments	
Comments Trees partially screen the view of the site from the houses.										
Sensitivity of view point	High √	Medium	Low	Comments						
Nature of change										
Elements of existing site			Predicted visibility of construction activity			New elements visible following construction				
			High √	Medium	Low					

Visual Impact Assessment

Visual change	Severe		Moderate		Slight		Negligible		
	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	Improvement	Deterioration	No change
On a typical day during construction period				√					
On a winters day, year 1 following construction				√					
On a summers day, year 15 following completion				√					

Significance of visual change	High		Moderate		Low		No significant impacts
	Beneficial	Adverse	Beneficial	Adverse	Beneficial	Adverse	
On a typical day during construction period				√			
On a winters day, year 1 following construction				√			
On a summers day, year 15 following completion				√			

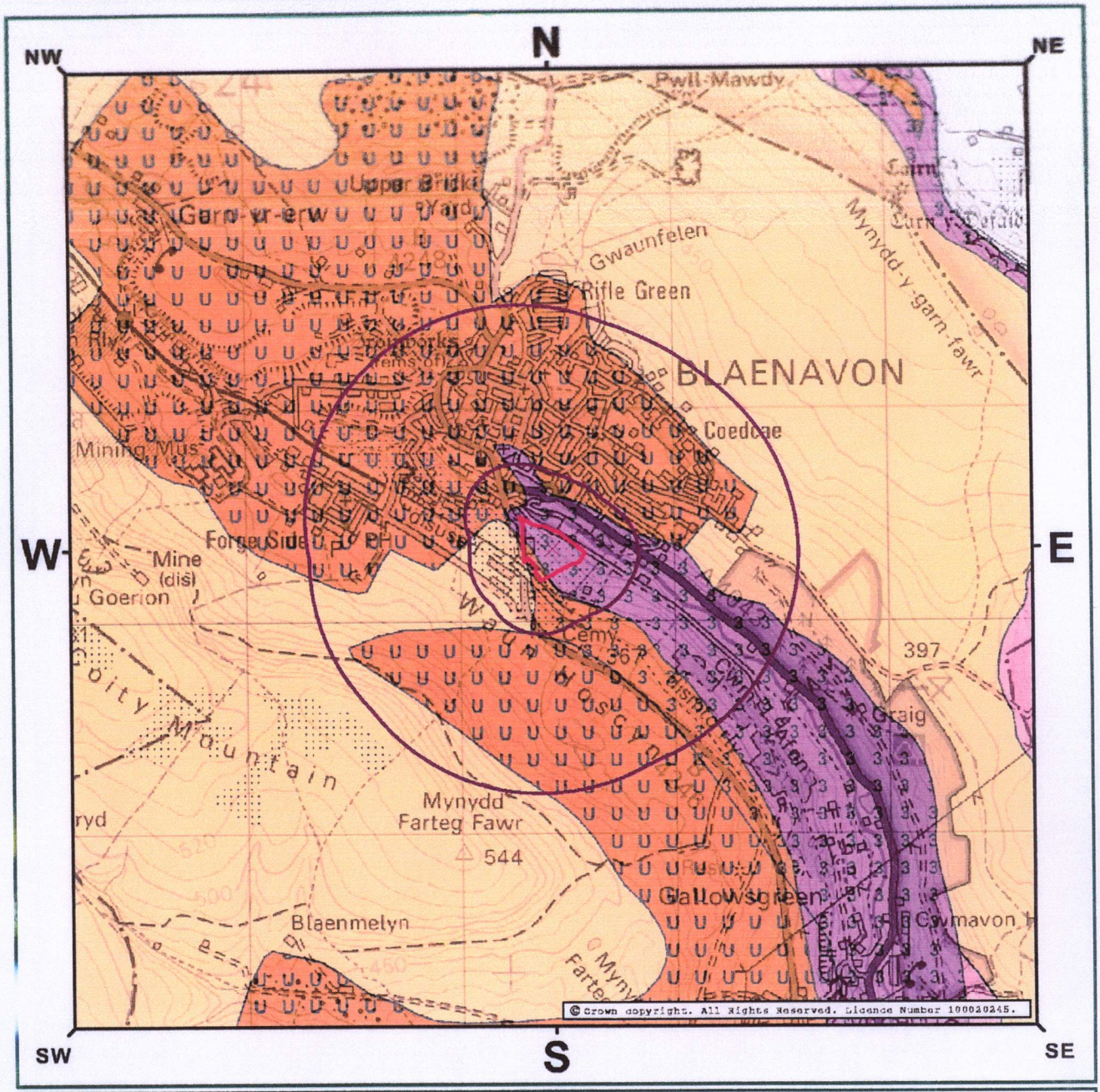
Comments

APPENDIX H

Groundwater Vulnerability Map

Envirocheck®
A Landmark® product

Groundwater Vulnerability Map



KEY

General

- Specified Site
- Bearing Reference Point
- Buffer

Groundwater Vulnerability

Geological Classes

Soil Classes

Major Aquifer (High Permeable)	High (H) 1, 2, 3, U	Drift Deposit
	Intermediate (I) 1, 2	
	Low	
Minor Aquifer (Variable Permeable)	High (H) 1, 2, 3, U	
	Intermediate (I) 1, 2	
	Low	
Non Aquifer (Negligibly Permeable)		

APPENDIX I

British Geological Survey Report

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Report prepared for:

Jon Bailes
ExCAL Limited,
ExCAL House,
Capel Hendre Industrial Estate,
Ammanford,
Carmarthenshire
SA18 3SJ

Geological Assessment - Standard

This report is aimed at customers or clients carrying out preliminary site assessments, who require a brief indication of the geology and related geological subsidence hazards around the site.

The report, prepared by BGS geologists, is based on analysis of records and maps held in the National Geoscience Data Centre (NGDC), and includes descriptions of rock types, natural subsidence hazards and mining & quarrying hazard if present. It also contains a listing of the key geoscience data sets held in the NGDC for the area around the site.

The report does not, however, consider radon hazard or detailed hydrogeology at the site (these are described in the Detailed Geological Assessment report, available separately).

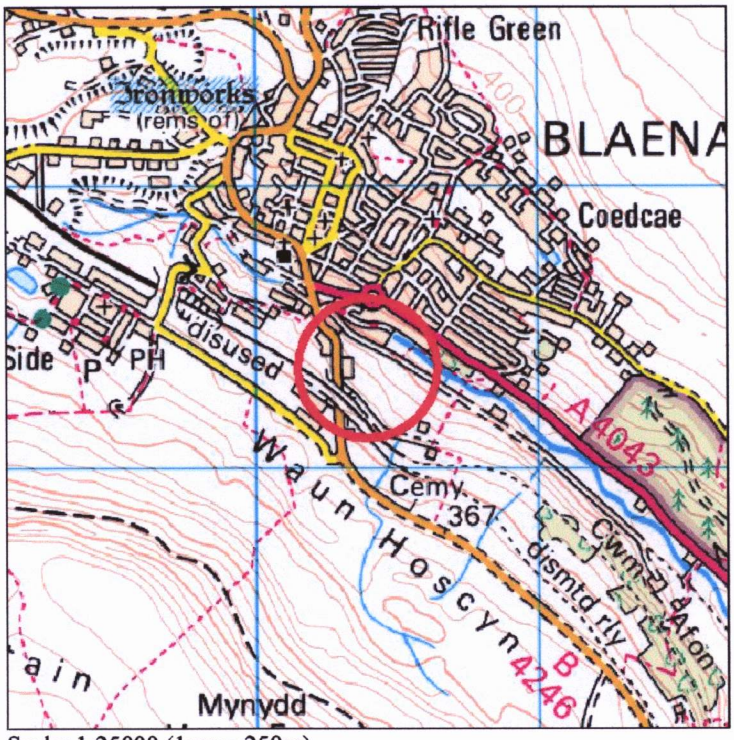
Note that for some sites, the latest available records may be quite historical in nature, and while every effort is made to place the analysis in a modern geological context, it is possible in some cases that the detailed geology at a site may differ from that described.

Client's Reference:
New Road Farm, Blaenavon

Section 1: Location and extent of report area

Area centred at: 325400,0208350
Radius of site area: 250 metres

This report is based on the above location details. However, where the client has submitted a site plan, it is used for the assessment in Sections 2 and 3.



Scale: 1:25000 (1cm = 250m)

SITE LOCATION

Section 2: Geological Considerations within the Search Area

This table lists the principal geological considerations that may affect a site, and is based on interpretation of data available to BGS at the time of compilation; additional information may be available in BGS files. The information is designed to act as a checklist and should not be used in place of a detailed site investigation.

Geohazard type	Should be considered at this site	Comments
Swell-shrink clay	✔	Very Low probability due to Glacial Till deposits and Head Deposits
Shallow mining	✔	Low-Medium probability due to presence of Lower Coal Measures
Unstable ground	✔	Medium probability
Dissolution features		
Compressible ground	✔	Low- Medium probability due to alluvium deposits
Running sand		
Artificial ground	✔	Former small quarries within search radius
Natural land gas		
Shallow Groundwater	✔	Small quantities of water may be encountered in any Made Ground present. Shallow groundwater may also occur in any sand and gravel horizons within the Till and could be in hydraulic continuity with the River Cwm Afon. We have no information on likely rest water levels in the Millstone Grit, Llanelly Formation or Gilwern Oolite Formation at the site, however, we expect the rest water level in those formations to be at about river level, i.e the depth to groundwater in the S and SW of the site should me more than 10 metres, decreasing towards the N and NE to less than 5 metres.
Aquifer vulnerability	✔	The Gilwern Oolite and Llanelly Formation are classified as a Major Aquifer with high soil leaching potential. The Millstone Grit are classified as a Minor aquifer with high soil leaching potential.

Section 3: Description of the Geology within the Search Area

Artificial Ground:
None recorded up to the time of map compilation. Made ground of generally limited thickness and extent is, however, commonly present in all urban, built-over and landscaped areas. Boreholes to the north west and south of the site area have recorded Made Ground of thickness' between 0.91 m (BHSO20NE/13-15), and 2 m. Comprising dominantly black ash fill.

Superficial Deposits:
The site area is covered in glacial deposits known as till. There are no boreholes in the search area but thicknesses of up to 10 meters have been recorded in the wider area. The till in this area is likely to comprise stiff brown Clay with frequent gravels, cobbles and boulders.

Alluvium has been mapped in the north eastern limit of the site; this related to the river Cwm. The Alluvium is likely to comprise rounded sands and gravels in a sandy/silty clayey matrix. The thickness of the alluvium within the site is unknown due to the lack of boreholes. Boreholes to the north west of the area have recorded thickness of Alluvium in excess of six meters.

Rockhead Depth:
The depth to rockhead (bedrock) is not known with any degree of certainty, but it is estimated to be up to 10 m.

Bedrock Geology:
The search radius is underlain by four formations; the boundaries for which run in a north west – south east orientation across the site. The regional dip is approximately eight degrees to the south west.

The oldest Formation lies in the north eastern edge of the area. This is the Gilwern Oolite of Dinantion (Carboniferous) age this comprises Dolomitised Limestone and Dolomite.

The Gilwern Oolite is overlain to the southwest by the Llanelly Formation, of Carboniferous Age. The Llanelly formation is described in the Abergavenny Memoir, (232), as comprising fine grained, thinly bedded, peritidal limestones. The Millstone Grit overlies the Llanelly Formation. The Millstone Grit is of Namurian Age, and is described, in the Abergavenny Memoir, as three divisions comprising interbedded pebbly grits, conglomerates, shale's, and sandstones.

In the south west corner of the search radius the South Wales Lower Coal Measures are present, these comprise up to 150 m of interbedded sandstones, mudstones, ironstones and coals.

Additional Geological Considerations:
The Blaenavon area has been extensively mined; due to the proximity of the Welsh Coal Measures (The Lower Coal Measure's lie in the south west of the search area). Whilst there are is not any evidence for surface workings within the site there have been both coal and ironstone workings to the south west and therefore there is a low possibility of underground and near surface workings in the area. For further information regarding underground and opencast coal mining and the location of mine entries (shafts and adits), and matters relating to coal mining-induced subsidence or ground movement, please contact the Coal Authority, Mining Reports, 200 Lichfield Lane, Mansfield, Notts. NG18 4RG. Telephone 0845 762 6848. The site itself has a number of small-disused back filled quarries within it.

There is a low possibility of shrinking and swelling process occurring in the superficial deposits especially if the till has a high organic content.

Whilst no landslides have been mapped within the area, there is a medium probability of unstable ground and movement within the drift deposits and, or, weathered bedrock especially on the steep slopes across the search radius and site.

Hydrogeological Information
The generalised Groundwater Vulnerability around the site is described in Section 2.

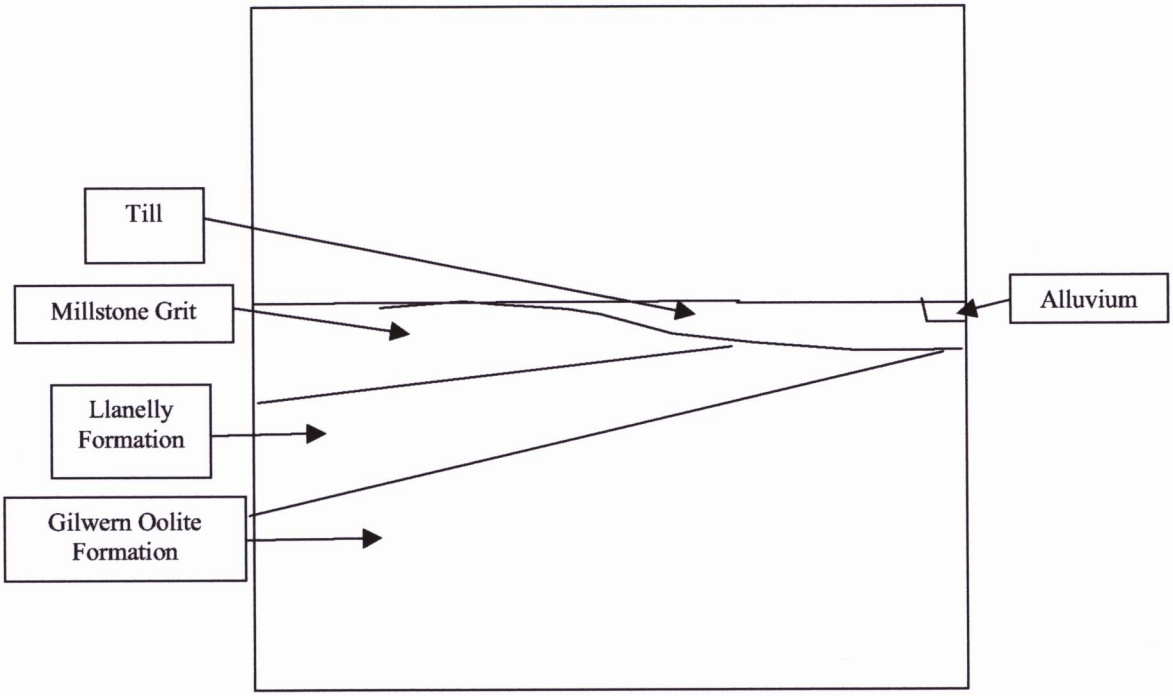
A more detailed hydrogeological assessment can be obtained as part of the Geological Assessment Detailed report which costs £305 (incl. VAT and delivery). The detailed hydrogeological assessment describes aquifer characteristics, groundwater levels, water table fluctuations, groundwater quality and groundwater vulnerability in the context of the geological assessment.

Radon
Two separate reports, for £42 (incl. VAT and delivery) and £165 (incl. VAT & delivery) are available describing the level of Radon Protective Measures required during the construction of new dwellings, or extensions to existing properties, at the site. The first is a lower resolution (1:250,000 or 1:50,000 scale) search generated automatically using the BGS Radon Protective Measures GIS, while the second is a higher resolution ((1:50,000 or 1:10,000 scale) search carried out manually by BGS geologists for the site area. Both reports fulfil the Stage 2 requirements for a geological assessment outlined in BRE publication (BR211, 1999): *Radon: Guidance on protective measures for new dwellings*.

Section 4: Schematic Geological Cross-Section of the Site

Not to scale

32531 20827 SW side of site *32545 20845 NE side of site*

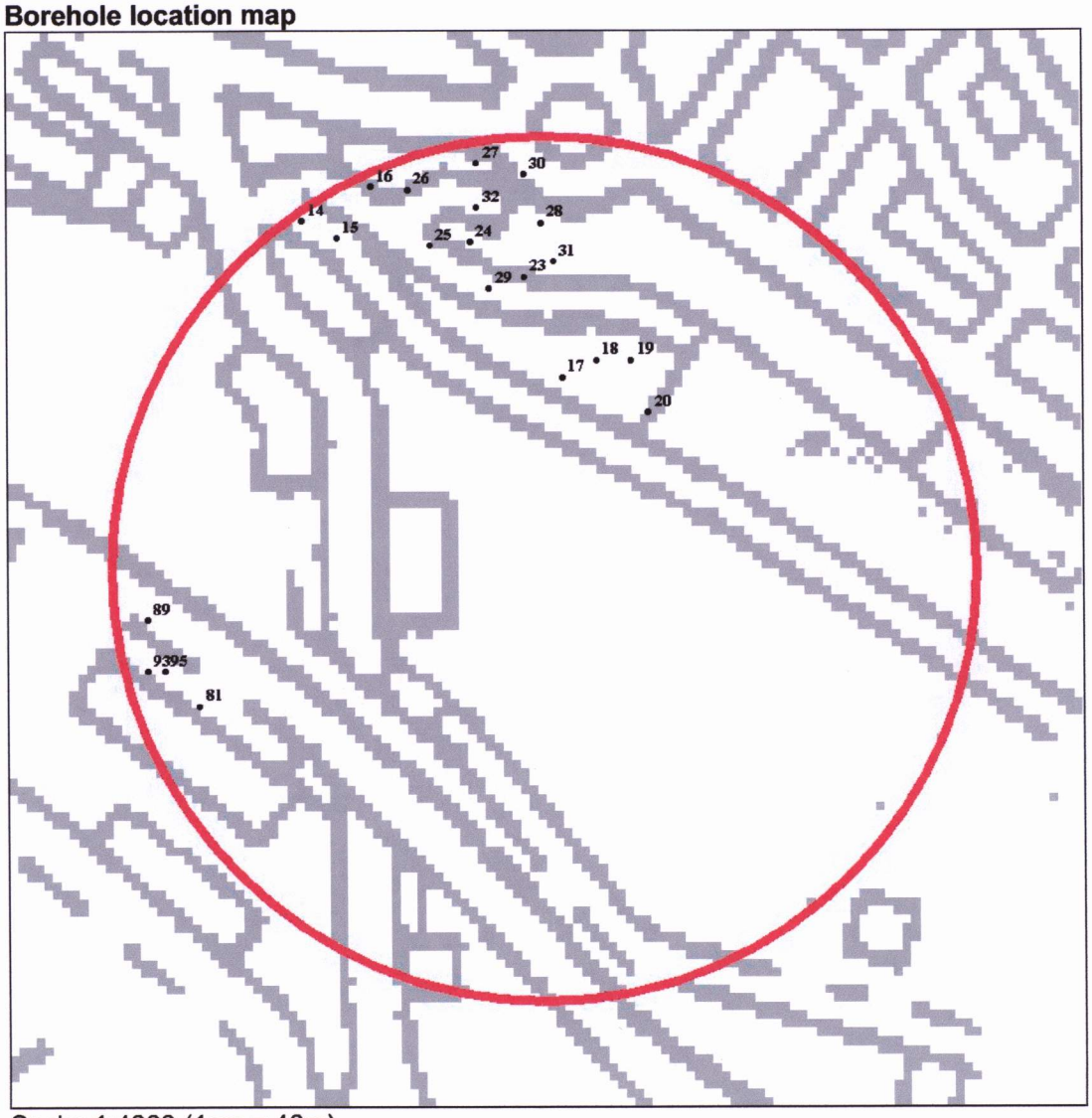


This sketch represents an interpretation of the geometrical relationships of the main rock units described in the text. Not to scale.

Section 5: List of geological data available in search area

This section lists the principal data sets held in the National Geoscience Records Centre that are relevant to the search area. Descriptions of the data sets and how to obtain copies of records from them are given in Section 5. Users with access to computing facilities can make their own index searches using the BGS Internet Geoscience Data Index, accessible through the BGS website at www.bgs.ac.uk

Borehole location map



Scale: 1:4000 (1cm = 40m)

Borehole records

(A blank Length field indicates the borehole is confidential or no depth has been recorded digitally.)
Total number of records: 21

The 'Office' column shows the office at which the records are held and from where copies can be obtained (see contact details later in the report). KW=Keyworth, MH & MW=Murchison House,

WL=Wallingford, EX=Exeter

Regno	Grid reference	Name	Length	Office	SIR
SO20NE14	SO 25260 08550	BRIDGE STREET 2	5.49	KW	
SO20NE15	SO 25280 08540	BRIDGE STREET 3	5.79	KW	
SO20NE16	SO 25300 08570	BRIDGE STREET 4	6.10	KW	
SO20NE17	SO 25410 08460	BRIDGE STREET 5	3.35	KW	
SO20NE18	SO 25430 08470	BRIDGE STREET 6	3.28	KW	
SO20NE19	SO 25450 08470	BRIDGE STREET 7	6.10	KW	
SO20NE20	SO 25460 08440	BRIDGE STREET 8	5.69	KW	
SO20NE23	SO 25388 08518	BLADON ROAD, HOUSING PIT. A	2.24	KW	
SO20NE24	SO 25357 08538	BLADON ROAD, HOUSING PIT. B	1.37	KW	
SO20NE25	SO 25334 08536	BLADON ROAD, HOUSING PIT. C	2.29	KW	
SO20NE26	SO 25321 08568	BLADON ROAD, HOUSING PIT. D	2.59	KW	
SO20NE27	SO 25361 08583	BLADON ROAD, HOUSING PIT. E	2.44	KW	
SO20NE28	SO 25398 08549	BLADON ROAD, HOUSING PIT. F	3.05	KW	
SO20NE29	SO 25368 08511	BLADON ROAD, HOUSING HOLE. 1	2.74	KW	
SO20NE30	SO 25388 08577	BLADON ROAD, HOUSING HOLE. 2	2.44	KW	
SO20NE31	SO 25405 08527	BLADON ROAD, HOUSING HOLE. 3	2.44	KW	
SO20NE32	SO 25361 08558	BLADON ROAD, HOUSING HOLE. 4	2.74	KW	
SO20NE81	SO 25200 08270	FORGESIDE, BLAENAVON TP5	2.10	KW	
SO20NE89	SO 25170 08320	FORGESIDE, BLAENAVON 3	10.00	KW	
SO20NE93	SO 25170 08290	FORGESIDE, BLAENAVON DH3	4.80	KW	
SO20NE95	SO 25180 08290	FORGESIDE, BLAENAVON DH3A	30.00	KW	

There are no records for Water Well Records in the selected area

There are no records for Boreholes with water level readings in the selected area

There are no records for Locations with aquifer properties in the selected area

Site investigation reports, England and Wales
Total number of records: 2

Number	Title	Registered Numbers
10617	BAKER STREET BLAENAVON	SO20NE 53-76
12849	BAKER STREET BLAENAVON	SO20NE 35-36 37A-P

National Grid geological maps (1:10,000 and 1:10,560 scale)
Total number of records: 1

Map	Type	Survey	Published	Revision
SO20NE	C	1978		1991

County Series geological maps (1:10,560 scale)
Total number of records: 6

Map	Type	Published
Monmouthshire12FS	C	
Monmouthshire12SW	C	1927
Monmouthshire12SW	D	1907
Monmouthshire12SW	S	1907
Monmouthshire12SW		1907
Monmouthshire12SW		1927

New Series medium scale geological maps (1:50,000 and 1:63360 scale)
Total number of records: 4

Sheet	Title	Type	Survey	Published	Revision
232	Abergavenny	C	1982	1990	
232	Abergavenny	D		1932	1930
232	Abergavenny	S	1896	1900	1900
232	Abergavenny	S		1896	

Old Series one inch geological maps (1:63360 scale)
Total number of records: 1

Sheet	Title	Type	Survey	Published	Revision
42SE	Abergavenny	S		1845	

Geological Memoirs
Total number of records: 1

Title	Date
South Wales coalfield - Part 2 - Abergavenny	1989

Technical reports
Total number of records: 1

Title	Year	Code
[Geological notes and local details for 1:10 000 sheet] SO20NE Blaenavon: part of 1:50 000 sheet 232 (Abergavenny).	1984	WA/DM/84/19

There are no records for Waste sites in the selected area

Mining plans
Total number of records: 38

Record Type	Plan No.	Title
KP	12553	SOUTH WALES PROSPECT
KP	16325	MINING SLIP[S
KP	16328	MINING SLIPS
KP	16330	DEVELOPMENT MAPS
KP	18190	CHRONOSTRATIGRAPHIC CORRELATION CHART
KP	18191	WESTPHALIAN A & B OF THE COALFIELDS OF ENGLAND &
KP	2639	THREEQUARTERS SEAM WORKINGS
KP	2640	BIG VEIN SEAM WORKINGS
KP	2641	OLD COAL SEAM WORKINGS
KP	2642	MEADOW VEIN SEAM WORKINGS
KP	2643	ELLED SEAM WORKINGS
KP	2670	CORRELATION OF COALFIELD SHAFTS
KP	2671	CORRELATION OF COALFIELD SHAFTS
KP	2674	BLAENAVON COLLIERIES
KP	2675	BLAENAVON COLLIERIES
KP	2676	BLAENAVON COLLIERIES
KP	2677	BLAENAVON COLLIERIES
KP	2678	BLAENAVON COLLIERIES
KP	2679	BLAENAVON COLLIERIES
KP	2684	BLAENAVON COLLIERIES
KP	2782	BLACK VEIN SEAM (LOWER 9FT + UPPER BUTE)
KP	2784	MEADOW VEIN (YARD) SEAM
KP	2785	HORN COAL SEAM (UPPER 9FT)KEY PLAN
KP	2786	BIG VEIN SEAM (UPPER 4FT)KEY PLAN

Record Type	Plan No.	Title
KP	2787	THREEQUARTERS SEAM
KP	2788	YARD VEIN SEAM (7FT) KEY PLAN
KP	2789	OLD COAL SEAM (LOWER 5FT + GELLIDEG)
KP	2865	SEAM PLAN (CORELATION)
KP	2892	HOSKIN,VARTEG,TAL-Y-WAUN O/C
KP	2893	HOSKIN,VARTEG,TAL-Y-WAUN O/C
KP	2894	HOSKIN,VARTEG,TAL-Y-WAUN O/C
KP	2895	HOSKIN,VARTEG,TAL-Y-WAUN O/C
KP	2896	HOSKIN,VARTEG,TAL-Y-WAUN O/C
KP	2897	HOSKIN,VARTEG,TAL-Y-WAUN O/C
KP	2898	HOSKIN,VARTEG,TAL-Y-WAUN O/C
KP	2899	HOSKIN,VARTEG,TAL-Y-WAUN O/C
KP	2900	HOSKIN,VARTEG,TAL-Y-WAUN O/C
KP	9499	SOUTH WALES COALFIELD

Section 6: Descriptions of BGS databases

Note that this report is not a definitive listing of all data held in BGS.

Borehole Records and Water Wells

Records of boreholes, shafts and wells from all forms of drilling and site investigation work. Some 900,000 records dating back over 200 years and ranging from one to several thousand metres deep. Currently some 50,000 new records are being added to the collection each year.

A small percentage of the borehole records are held commercial-in-confidence for various reasons and cannot be released without the written permission of the originator. If any of the records you need are listed as confidential apply in the normal way. BGS Enquiry Service staff will release the data where this is possible or provide you with the information needed to contact the originator.

Where records are held in more than one office, the contents may differ. Enquiries principally requiring water related information should contact the Wallingford or Edinburgh office.

Water levels

These represent a subset of records within the National Well Record Archive of water wells and boreholes where there are either digital or analogue time series of water levels, or where available water level data span multiple years. Time series data are held for approximately 1500 boreholes distributed nationally. Other water level data is available where records have been inspected and digitised. Record's, are identified by the Well Registration number used for water wells (see above). Please contact our Wallingford office to discuss your specific requirements and to obtain costs.

Aquifer properties

These are locations where data on aquifer physical properties (transmissivity, specific yield, storage, porosity or hydraulic conductivity) are held. The data include raw data from field and laboratory investigations, and site-specific summaries of the data. Coverage is limited to aquifers in England and Wales. Records are identified by an aquifer property identifier, which should be quoted when ordering data. This data should be ordered separately, but will normally be provided and charged for as part of the relevant borehole records.

Site investigation reports

Additional laboratory and test data may be available in these reports, subject to any copyright and confidentiality conditions. The grid references used are based on an un-refined rectangle and therefore may not be applicable to a specific site. Borehole records in these reports will be individually referenced within the borehole records collection, described above.

Geological maps

- **National Grid maps (1:10,000 and 1:10560 scale)** - Since the 1960s the standard large-scale map for recording geological information has been the Ordnance Survey (OS) quarter sheet covering a 5km square area. The maps are supplied in different formats depending on their age and the method of reproduction used. Only the latest most up-to-date version is listed.

- **County Series map sheets (1:10,560 scale)** - Maps produced on OS County Series sheets between approximately 1860 and 1960. The list indicates distinct examples of maps from separate surveys or revisions. It is advisable to discuss your requirements before ordering or travelling to view these maps.

- **New Series medium scale maps (1:50,000 and 1:63360 scale)** - Maps at either scale covering the OS New Series one-inch map sheet areas used by BGS. Please note that the sheet numbering is not the same as used for current OS 1:50,000 topographic maps.

- **Old Series medium scale one-inch maps (1:63,360 scale)** - Early geological mapping covering the OS Old Series one-inch map sheet areas. Applies to England and Wales only.

While there may be information relevant to your enquiry on older maps, you will generally want the latest edition, and National Grid maps will be preferred to County Series maps, and New Series to Old Series.

Memoirs

Explanatory sheet memoirs describing the geology of the areas covered by either the medium scale (1:50,000 and 1:63,360) map series.

Technical reports

The open file reports listed are mainly from the Onshore Geology Series. These include descriptions of the geology for the National Grid series geological sheets. Please note that the location details in the database are not yet complete so it is possible that not all the relevant reports available will be listed.

Waste sites

Listing of some 3500 waste sites for England and Wales identified by BGS as part of a survey carried out on behalf of the Department of the Environment in 1973. Later information is available from the Environment Agency.

Mine Plans

Plans of various types, principally relating to mining activity and including abandonment plans. For mine plans, the coverage is not comprehensive, but that for Scotland is the most complete. The search includes the collection of Plans of Abandoned Mines (Other than Coal & Oil Shale) for Scotland and the non-coal plans in the BGS Land Survey Plans collection, (mainly Scotland). Microfilm copies of the Plans of Abandoned Mines (Coal & Oil Shale) for Scotland and the Coal Authority's catalogues are available for consultation by prior appointment.

The mine plans listed for the rest of England and Wales (excluding SW England, which is not covered) include working copies, compilations and interpretations, which may be copyright or confidential and therefore not be available for purchase. The general nature of some of the plans means that they may not be applicable to a specific site. However, the presence of mining data could indicate that further specialist advice or interpretation is required. Large-scale plans produced for site investigations or other purposes are also included for completeness.

Section 7: How to access or inspect data

Borehole Records – *contact BGS Enquiry Service (see end of section)*

Copies of borehole records can be supplied (order form enclosed) at the flat rate of £13 (+VAT) per log with a minimum charge £26 (+VAT). Normal first class postage within the UK is included. Next day recorded delivery or express parcel dispatch is available on request and charged at cost. Copies of documents can be forwarded by facsimile transmission at an additional charge of £0.50 (+VAT) per A4 sheet. Records with additional detailed geological information derived from BGS examination of borehole material may be charged at the current 'value-added' rate. If you have a need for data with particular geological characteristics, then please contact the enquiries office to discuss your requirements (additional charges may apply).

Alternatively you can make an appointment to visit the relevant enquiry office and examine the records yourself. The Commercial User Ticket (see below) covers inspection of the borehole logs and includes access to a set of relevant documents for one unit area (typically a 5 km x 5 km area). A further charge of £19 (+ VAT) is due for each additional set examined. Data can be freely extracted from the records but any copies requested will be charged as above.

Water wells – *contact BGS Enquiry Service*

Copies of records can be supplied (order form enclosed) at the flat rate of £13 (+VAT) per log with a minimum charge £26 (+VAT). Normal first class postage within the UK is included. Next day recorded delivery or express parcel dispatch is available on request and charged at cost. Copies of documents can be forwarded by facsimile transmission at an additional charge of £0.50 (+VAT) per A4 sheet.

If you have a need for data with particular hydrogeological characteristics, then please contact the relevant enquiries office (England and Wales =Wallingford, Scotland=Edinburgh) to discuss your requirements (additional charges may apply).

Alternatively you can make an appointment to visit the relevant enquiry office and examine the records yourself.

Records for England and Wales are held at Wallingford where the visitor charge is £9.50/hour (+VAT, with a minimum charge of £19 (+VAT).

Records for Scotland are held with the borehole records at our Edinburgh office the above Borehole Record charges cover them and apply.

BGS Memoirs, maps and open file reports – *contact BGS Sales (details below)*

BGS Memoirs, maps and open file reports relevant to your area can be examined in the appropriate BGS Library. Copies can be ordered from our main Sales Desk: Sales Desk, British Geological Survey, Keyworth, Nottingham NG12 5GG Tel: 0115 936 3241, Fax: 0115 936 3488, E-mail: sales@bgs.ac.uk.

Sales Desks are also located in Edinburgh; Tel: 0131 650 0358, Fax: 0131 667 2785, E-mail: scotsales@bgs.ac.uk, and London; Tel: 020 7589 4090, Fax: 020 7584 8270, E-mail: bgslondon@bgs.ac.uk. BGS London also maintains a reference collection of all BGS publications.

Please check price and P&P before ordering.

Waste Sites – *contact BGS Enquiry Service*

Copies of register entries, containing a variety of levels of data recording, can be obtained from the BGS Enquiry Service (price on application). The registers can also be inspected by visit (see above)

Mine Plans – *contact BGS Enquiry Service*

Mine Plans are available for consultation by prior appointment. Copies can also be obtained - price on application.

Commercial User Ticket – *contact BGS Enquiry Service*

A combined day ticket for commercial visitors to the National Geological Data Centre and the Library is £55 (+VAT) and there is a £33 (+VAT) day ticket for visitors who only wish to use the Library. Frequent visitors can purchase an annual subscription at £275 (+VAT) for access to the NGDC and the Library or £155 (+VAT) for use of the Library only. Further details can be provided on request.

BGS ENQUIRY SERVICE Contact Details:

Keyworth (KW) Office
For Borehole and other records (excluding water well records & hydrogeological data) in England & Wales (excluding Northern England, and Devon & Cornwall):
Records & Data Enquiries
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Tel: 0115 9363109
Fax: 01159 363276

Exeter (EX) Office
For Borehole and other records (excluding water well records & hydrogeological data) in Devon & Cornwall:
Records & Data Enquiries
BGS Exeter Business Centre
Forde House
Park Five Business Centre
Harrier Way
Sowton
Exeter
Devon EX2 7HU
Tel: 01392 445271
Fax: 01392 445371

Wallingford (WL) Office
For water well records and hydrogeological data (water levels, water chemistry and aquifer properties) in England & Wales:
Records & Data Enquiries
British Geological Survey,
Maclean Building,
Wallingford,
Oxford OX10 8BB.
United Kingdom
Tel: 01491 838800
Fax: 01491 692345
Email: hydroenq@bgs.ac.uk

Murchison House (MH or MW) Office:
For water well records and hydrogeological data for Scotland, and all other records in Scotland & Northern England:
Records & Data Enquiries
Murchison House
West Mains Road
Edinburgh
EH9 3LA
Tel: 0131 650 0282
Fax: 0131 667 2785
Email: boreholesnorth@bgs.ac.uk

Section 8: More detailed geological reports available from BGS

This report forms part of a range of reports offered by the BGS Enquiry Service, including reports describing site geology, hydrogeology and geological hazards. For details on these please contact:

BGS Central Enquiries Desk
British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Tel: 0115 936 3143
Fax: 0115 936 3276
Email: enquiries@bgs.ac.uk

Or visit the Enquiry Service pages on the BGS website at www.bgs.ac.uk

Section 9: Terms and Conditions

General Terms & Conditions

This report is supplied in accordance with the GeoReports Terms & Conditions available on the BGS website at www.bgs.ac.uk/georeports and also available from the BGS Central Enquiries Desk at the above address.

Important notes about this report

- The data, information and related records supplied in this report by BGS can only be indicative and should not be taken as a substitute for specialist interpretations, professional advice and/or detailed site investigations. You must seek professional advice before making technical interpretations on the basis of the materials provided.
- Geological observations and interpretations are made according to the prevailing understanding of the subject at the time. The quality of such observations and interpretations may be affected by the availability of new data, by subsequent advances in knowledge, improved methods of interpretation, and better access to sampling locations.
- Raw data may have been transcribed from analogue to digital format, or may have been acquired by means of automated measuring techniques. Although such processes are subjected to quality control to ensure reliability where possible, some raw data may have been processed without human intervention and may in consequence contain undetected errors.
- Detail, which is clearly defined and accurately depicted on large-scale maps may be lost when small-scale maps are derived from them.
- Although samples and records are maintained with all reasonable care, there may be some deterioration in the long term.
- The most appropriate techniques for copying original records are used, but there may be some loss of detail and dimensional distortion when such records are copied.
- Data may be compiled from the disparate sources of information at BGS's disposal, including material donated to BGS by third parties, and may not originally have been subject to any verification or other quality control process.
- Data, information and related records, which have been donated to BGS, have been produced for a specific purpose, and that may affect the type and completeness of the data recorded and any interpretation. The nature and purpose of data collection, and the age of the resultant material may render it unsuitable for certain applications/uses. You must verify the suitability of the material for your intended usage.
- If a report or other output is produced for you on the basis of data you have provided to BGS, or your own data input into a BGS system, please do not rely on it as a source of information about other areas or geological features, as the report may omit important details.
- The topography shown on any map extracts is based on the latest OS mapping and is not necessarily the same as that used in the original compilation of the BGS geological map, and to which the geological linework available at that time was fitted.

Report issued by:

BGS Enquiry Service

GeoReports

Geology Map Extracts

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Report prepared for:

Jon Bailes
ExCAL Limited
ExCAL House
Capel Hendre Industrial Estate
Ammanford
Carmarthenshire
SA18 3SJ

Geology Map Extracts

This report is designed for users carrying out preliminary site assessments who require geological maps for the area around their site, as well as for those who have a general interest in their local geology.

The report contains geological map extracts taken from the BGS Digital Geological Map of Great Britain at the 1:50,000 scale (DiGMapGB-50). The various geological layers – artificial (man-made), landslip, superficial and solid (bedrock) geology - are displayed separately as 10 by 10cm extracts.

Client's Reference:

New Road Farm, Blaenavon

Location details:

Area centred at: 325400,0208350
Radius of site area: 250 metres

The assessment in this report is carried out for the search area defined above. If the client has submitted a site plan then this will have been used to derive the above location details.

Section 1: Geology of the area

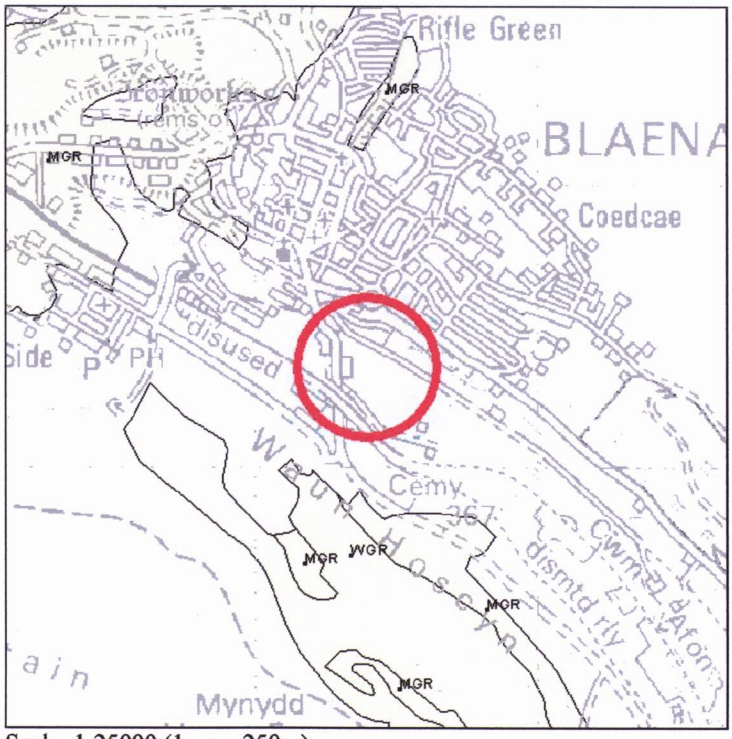
Extracts of geology maps around your site are provided in this section, taken from the BGS Digital Geological Map of Great Britain at the 1:50,000 scale (DiGMapGB-50). The first four maps show separately the four main layers of geology that may be present in an area – **artificial (man-made) deposits, landslip deposits, superficial deposits** and **bedrock**. The fifth 'combined geology' map shows all four rock layers superimposed on the same map, to show the rocks that occur at the surface just beneath the soil.

More information on DigMapGB-50 and how the various rock layers are classified can be found on the BGS website (www.bgs.ac.uk), under the DiGMap and BGS Rock Classification Scheme areas. Further descriptions of the rocks listed in the map keys can also be obtained by searching against the Computer Code on the *BGS Lexicon of named Rock Units*, which is also on the BGS Website at by following the 'GeoData' link. The computer codes are labelled on the maps to try and help in their interpretation (with a dot at the bottom left hand corner of each label). However, please treat this with caution in areas of complex geology, where some of the labels may overlap several geological formations. If in doubt, please contact BGS enquiries.

The geological formations are listed broadly in order of age in the map keys (youngest first) but only to the formation level (a formation is a package of related rocks). Within formations, please be aware that individual members may not be ordered by age.

Artificial deposits

These include deposits moved and disturbed by man.



Scale: 1:25000 (1cm = 250m)

SITE LOCATION

Key to Artificial deposits:

Map colour	Computer Code	Rock name	Rock type
	MGR	MADE GROUND [UNDIVIDED]	MADE GROUND (ex MGR),FILL,RUBBISH,ASH,SLAG,FORCED GRND,etc.
	WGR	WORKED GROUND [UNDIVIDED]	As in OPEN WASTE

Landslip deposits

These include natural deposits formed by sliding and mass-movement of soils and rocks on hill slopes (an alternative term for Landslip deposits is 'Mass Movement Deposits')

Scale: 1:25000 (1cm = 250m)

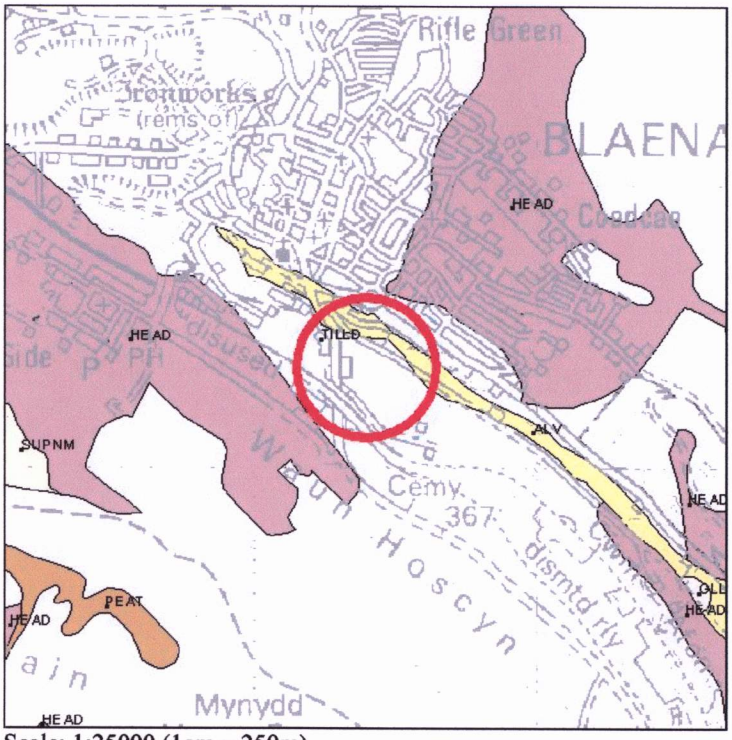
SITE LOCATION

Key to Landslip deposits:

Map colour	Computer Code	Rock name	Rock type
	SLIP	LANDSLIP	UNKNOWN LITHOLOGY

Superficial deposits

These include fairly recent geological deposits, such as river sands and gravels, or glacial deposits, which lie on the bedrock in many areas (an alternative term for Superficial deposits is 'Drift Deposits')



Scale: 1:25000 (1cm = 250m)

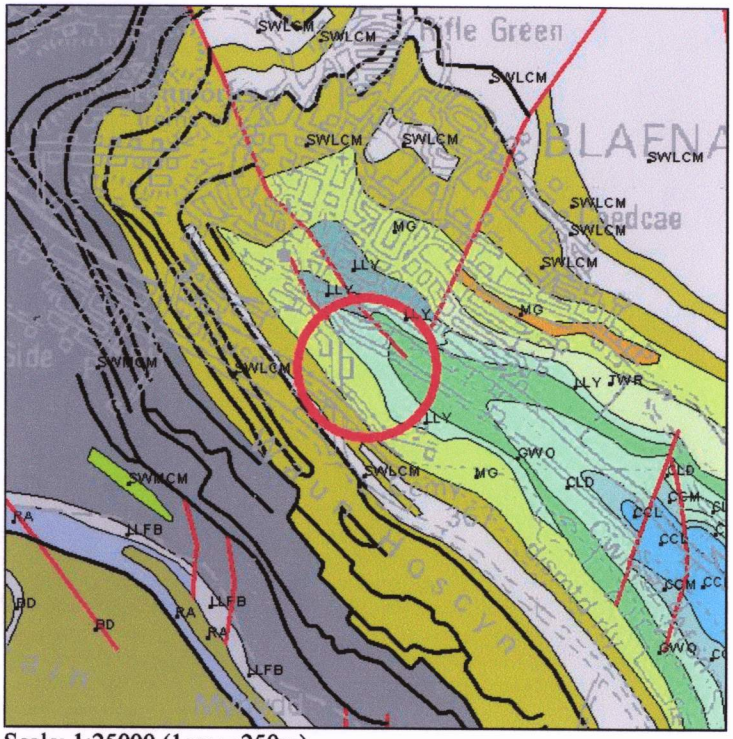
SITE LOCATION

Key to Superficial deposits:

Map colour	Computer Code	Rock name	Rock type
	ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
	HEAD	HEAD (UNDIFFERENTIATED)	CLAY, SILT, SAND AND GRAVEL
	PEAT	PEAT	PEAT
	GLLDD	GLACIOLACUSTRINE DEPOSITS, DEVENSIAN	CLAY AND SILT
	TILLD	TILL, DEVENSIAN	DIAMICTON
	SUPNM	SUPERFICIAL DEPOSITS NOT MAPPED [FOR DIGITAL MAP USE ONLY]	UNKNOWN LITHOLOGY

Bedrock

Bedrock forms the ground underlying the whole of an area, upon which the other geological layers listed above may lie (an alternative term for Bedrock is 'Solid Geology')



Scale: 1:25000 (1cm = 250m)

SITE LOCATION

Fault

Coal, ironstone or other mineral vein

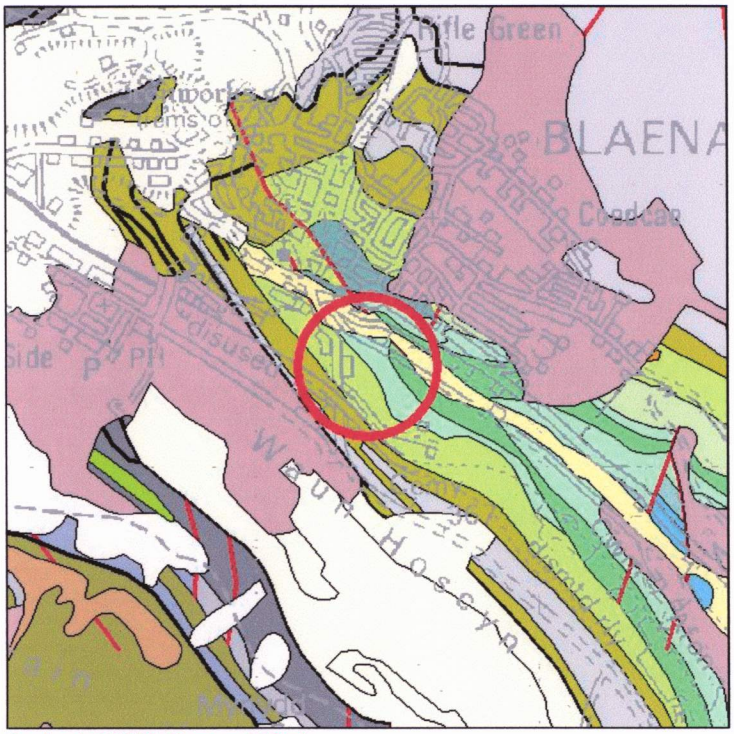
Note: Faults and Coals, ironstone & mineral veins are shown for illustration and to aid interpretation of the map. Not all such features are shown and their absence on the map face does not necessarily mean that none are present

Key to Bedrock geology:

Map colour	Computer Code	Rock name	Rock type
	BD	BRITHDIR MEMBER	MUDSTONE, SILTSTONE AND SANDSTONE
	BD	BRITHDIR MEMBER	SANDSTONE
	LLFB	LLYNFI MEMBER	MUDSTONE, SILTSTONE AND SANDSTONE
	RA	RHONDDA MEMBER	MUDSTONE, SILTSTONE AND SANDSTONE
	RA	RHONDDA MEMBER	SANDSTONE
	SWMCM	SOUTH WALES MIDDLE COAL MEASURES FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE
	SWMCM	SOUTH WALES MIDDLE COAL MEASURES FORMATION	SANDSTONE
	SWLCM	SOUTH WALES LOWER COAL MEASURES FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE
	SWLCM	SOUTH WALES LOWER COAL MEASURES FORMATION	SANDSTONE
	MG	MILLSTONE GRIT GROUP [SEE ALSO MIGR]	MUDSTONE, SILTSTONE AND SANDSTONE
	MG	MILLSTONE GRIT GROUP [SEE ALSO MIGR]	SANDSTONE
	TWR	TWRCH SANDSTONE FORMATION	SANDSTONE AND CONGLOMERATE, INTERBEDDED
	GWO	GILWERN OOLITE FORMATION	DOLOMITISED LIMESTONE AND DOLOMITE
	LLY	LLANELLY FORMATION	CLAY
	LLY	LLANELLY FORMATION	DOLOMITISED LIMESTONE AND DOLOMITE
	LLY	LLANELLY FORMATION	LIMESTONE AND [SUBEQUAL/SUBORDINATE] ARGILLACEOUS ROCKS, INTERBEDDED
	CCL	CASTELL COCH LIMESTONE FORMATION	LIMESTONE
	CCM	CWMYNISCOY MUDSTONE FORMATION	MUDSTONE
	CLD	CLYDACH VALLEY SUBGROUP	DOLOMITISED LIMESTONE AND DOLOMITE

Combined 'Surface Geology' Map

This map shows all four rock layers overlaid from the previous maps.



Scale: 1:25000 (1cm = 250m)

SITE LOCATION

Please see the Keys to the Artificial, Landslip, Superficial and Bedrock geology maps.

Section 2: More detailed geological reports available from BGS

This report forms part of a range of advice reports offered by the BGS Enquiry Service, including more detailed reports describing site geology and geological hazards. For details on these please contact:

BGS Central Enquiries Desk
British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham NG12 5GG
Tel: 0115 936 3143
Fax: 0115 936 3276
Email: enquiries@bgs.ac.uk

Or visit the Enquiry Service pages on the BGS website at www.bgs.ac.uk

Section 3: Terms and Conditions

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GeoReports

Geology Map Extracts

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Report issued by:

BGS Enquiries Service

APPENDIX J

Coal Authority Report

The Coal Authority,
Mining Reports Office,
200 LICHFIELD LANE,
BERRY HILL,
MANSFIELD,
NOTTINGHAMSHIRE,
NG18 4RG
Telephone: 0845 762 6848
DX 716176 MANSFIELD 5
On-Line Service: www.coalminingreports.co.uk

The COAL AUTHORITY

The Coal Authority
Cost: £38.30
Plus V.A.T. £6.70
Total Received: £45.00
V.A.T. Reg Number 598 5850 68

WILLDIG LAMMIE PARTNERSHIP,
WILLDIG PARTNERSHIP LTD,
1 SERPENTINE ROAD,
NEWPORT,
GWENT,
NP20 4PF

This matter is being dealt with by Phil Huddleston

Our Ref: 412920-03

Your Ref: 0154 AH

Electronic Ref:

Date: 13 September 2003

Dear Sir,

Coal Mining Report

NEW ROAD FARM, VARTEG ROAD, BLAENAVON, PONTYPOOL, GWENT, NP4 9DY

I refer to the enquiry dated 04th September 2003, received 12th September 2003, in connection with the above.

This report is based on and limited to the records in the possession of The Coal Authority at the time the search is answered.

Past Underground Mining

According to the records in our possession, the property is not within the zone of likely physical influence on the surface from past underground coal workings.

Present Underground Mining

The property is not within the zone of likely physical influence on the surface from any present underground coal workings.

Future Underground Mining

The property is not within a geographical area for which a licence to extract coal by underground methods is awaiting determination by the Coal Authority.

The property is not within a geographical area for which a licence to extract coal by underground methods has been granted.

The property is not within the zone of likely physical influence at the surface from plans of future workings in our possession.

However reserves of coal exist in the locality which could be worked at some time in the future subject to feasibility, licences, and planning consents.

We have no record of any notice of the risk of the land being affected by subsidence being given under S.46 of the Coal Mining Subsidence Act 1991.

Shafts and Adits

We have no knowledge of any mine entries within, or within 20 metres of, the boundary of the property.

Surface Geology

Records in our possession do not disclose any fault or other line of weakness at the surface as having affected the stability of the property.

Past Opencast Mining

The property is not located within the geographical boundary of an opencast site from which coal has been extracted by opencast methods.

Present Opencast Mining

The property does not lie within 200 metres of the geographical boundary of an opencast site within which coal is being extracted by opencast methods.

Future Opencast Mining

The property is not within 800 metres of the geographical boundary of an opencast site for which a licence to extract coal by opencast methods is awaiting determination.

The property is not within 800 metres of the geographical site boundary of an opencast site for which a licence to extract coal by opencast methods has been granted.

Subsidence

The records in our possession do not disclose any damage notice or claim having been given, made or pursued in respect of the property since 1 January 1984.

The records in our possession do not disclose any current "Stop Notice" affecting the property.

The records in our possession do not show any request having been made to execute preventative works under S.33 of the Coal Mining Subsidence Act 1991.

Withdrawal of Support

The property does not lie within a geographical area in respect of which a notice of entitlement to withdraw support has been publised.

The property does not lie within a geographical area in respect of which a notice has been given under S.41 of the Coal Industry Act 1994, revoking the entitlement to withdraw support.

Working Facilities Orders

The property is not within a geographical area that is the subject of an Order made under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

Payments to Owners of Former Copyhold Land

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

Additional Remarks

These replies are prepared in accordance with the 2003 editions of the Coal Authority's Terms and Conditions, User Guide and the Law Society's Guidance Notes.

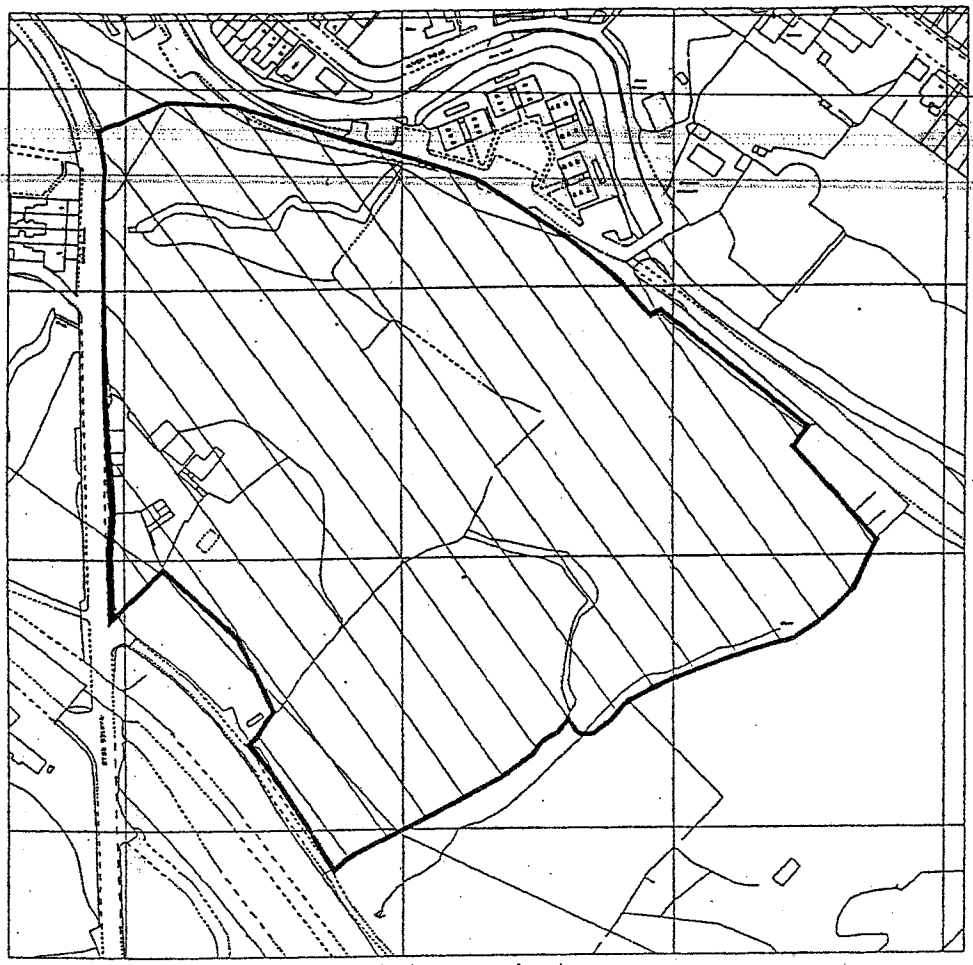
We acknowledge the receipt of your remittance in payment of our fee.

Yours faithfully

A Schofield

Albert Schofield

Director of Mining Information and Services



Crown Copyright. Quoted scale is approximate.

SCALE: 1:2500

This is a plan of the boundaries of the property in respect of which this report has been prepared. It is the responsibility of the user to ensure that the boundaries shown correspond with those of the property.

APPROXIMATE POSITION OF ENQUIRY BOUNDARY SHOWN

APPENDIX K

Trial Pit Logs

Sampling			Strata				
Depth	Sample/ Test	Date/ Water	Description	SAMPLE RUN Diameter (mm)	SAMPLE RUN Recovery Run Time (%)	Depth (Thickness)	Legend
0.50	D	22/04/05	MADE GROUND: Brown topsoil			G.L.	
1.00	D		MADE GROUND: Brown clayey soil with inert building material.			0.50	
1.50						1.00	
2.00						1.50	
2.50						2.00	
3.00						2.50	
3.50						3.00	
4.00			MADE GROUND: Dark brown soil with large stone and pebbles.			3.50	
4.50			**End of Trial Pit**			4.00	
5.00						4.50	
5.50						5.00	
6.00						5.50	
6.50						6.00	
7.00						6.50	
7.50						7.00	
8.00						7.50	
8.50						8.00	
9.00						8.50	
9.50						9.00	
10.00						9.50	
						10.00	

Equipment:
JCB

Groundwater:
No water encountered

Excavated by: ExCAL Ltd.

Notes : Trial pit terminated at 3.50m.

Trial Pit Record

ExCAL LIMITED

Project:
ES1534
New Road Farm, Varteg Road, Blaenavon

Date: May 2005
Drawn by: HJ
Checked by: SW
Trial Pit: A

ExCAL Limited
Capel Hendre Industrial Estate
Ammanford
Carmarthenshire
Tel. 01269 831606
Fax. 01269 841867

Sampling			Strata				
Depth	Sample/ Test	Date/ Water	Description	SAMPLE RUN Diameter (mm)	SAMPLE RUN Recovery Run Time (%)	Depth (Thickness)	Legend
	D	22/04/05	MADE GROUND: Brown topsoil			G.L.	
1.50						0.50	
1.00	D		MADE GROUND: Brown silty, sand soil with large building masonry.			1.00	
1.50						1.50	
2.00						2.00	
2.50						2.50	
3.00	D		MADE GROUND: Dark grey clayey soil.			3.00	
3.50			**End of Trial Pit**			3.50	
00						4.00	
1.50						4.50	
5.00						5.00	
5.50						5.50	
6.00						6.00	
6.50						6.50	
7.00						7.00	
7.50						7.50	
8.00						8.00	
3.50						8.50	
9.00						9.00	
9.50						9.50	
10.00						10.00	

Equipment:
JCB

Groundwater:
Groundwater was encountered at 3.0m

Excavated by: ExCAL Ltd.

Notes : Trial pit terminated at 3.00m.

T..l Pit Record

ExCAL LIMITED

Project:
ES1534
New Road Farm, Varteg Road, Blaenavon

Date: May 2005
Drawn by: HJ
Checked by: SW
Trial Pit: B

ExCAL Limited
Capel Hendre
Industrial Estate
Ammanford
Carmarthenshire
Tel. 01269 831606
Fax. 01269 841867

Sampling			Strata				
Depth	Sample/ Test	Date/ Water	Description	SAMPLE RUN Diameter (mm)	SAMPLE RUN Recovery Run Time (%)	Depth (Thickness)	Legend
0.50	D	22/04/05	MADE GROUND: Brown topsoil with thin iron pan layer			G.L.	
1.00	D					0.50	
1.50			MADE GROUND: Light brown silty, sandy soil with small pebbles.			1.00	
2.00						1.50	
2.50						2.00	
3.00	D					2.50	
3.50						3.00	
4.00			Made ground: Dark brown clayey soil			3.50	
4.50						4.00	
5.00			**End of Trial Pit**			4.50	
5.50						5.00	
6.00						5.50	
6.50						6.00	
7.00						6.50	
7.50						7.00	
8.00						7.50	
8.50						8.00	
9.00						8.50	
9.50						9.00	
10.00						9.50	
						10.00	

Equipment:
JCB

Groundwater:
No water was encountered.

Excavated by: ExCAL Ltd.

Notes : Trial pit terminated at 4.00m.

Trial Pit Record

EXCAL LIMITED

Project:
ES1534
New Road Farm, Varteg Road, Blaenavon

Date: May 2005
Drawn by: HJ
Checked by: SW
Trial Pit: C

ExCAL Limited
Capel Hendre
Industrial Estate
Ammanford
Carmarthenshire

Tel. 01269 831606
Fax. 01269 841867

Sampling			Strata				
Depth	Sample/ Test	Date/ Water	Description	SAMPLE RUN Diameter (mm)	SAMPLE RUN Recovery Run Time (%)	Depth (Thickness)	Legend
	D	22/04/05	MADE GROUND: Dark brown topsoil			G.L.	
0.50						0.50	
	D						
1.00						1.00	
1.50			MADE GROUND: Light brown soil with large masonry stones.			1.50	
2.00						2.00	
2.50						2.50	
	D						
3.00						3.00	
3.50			Made ground: Light brown clayey soil with pebbles and stones.			3.50	
4.00						4.00	
4.50			**End of Trial Pit**			4.50	
5.00						5.00	
5.50						5.50	
6.00						6.00	
6.50						6.50	
7.00						7.00	
7.50						7.50	
8.00						8.00	
8.50						8.50	
9.00						9.00	
9.50						9.50	
10.00						10.00	

Equipment:
JCB

Groundwater:
No water was encountered.

Excavated by: ExCAL Ltd.

Notes : Trial pit terminated at 4.00m.

T..al Pit Record

ExCAL LIMITED

Project:
ES1534
New Road Farm, Varteg Road, Blaenavon

Date: May 2005
Drawn by: HJ
Checked by: SW
Trial Pit: D

ExCAL Limited
Capel Hendre Industrial Estate
Ammanford
Carmarthenshire
Tel. 01269 831606
Fax. 01269 841867

APPENDIX L

Trial Pit Results

TABLE 1

NEW ROAD FARM, VARTEG ROAD, BLAENAVON SITE INVESTIGATION - SOIL ANALYSIS RESULTS

All results are in mg/kg unless stated otherwise

Sample Location	Depth	Arsenic	Chloride	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	pH	Sulphate	TPH	Cyanide
	(metres)		(water soluble)		(total)						(unitless)	(%)		
TP1	0.5	8.1	<100	<0.50	11	18	35	<0.20	11	85	8.3	170	<25	<0.50
TP1	1	8.8	<100	<0.50	12	16	27	<0.20	10	55	8.4	130	25	<0.50
TPA	1.5	8.4	<100	<0.50	10	16	30	<0.20	8.8	63	8.3	220	<25	<0.50
TPA	2	9.5	<100	<0.50	12	18	36	<0.20	11	61	8.4	300	30	<0.50
TPA	2.5	10	<100	<0.50	11	16	34	<0.20	12	62	8.3	490	<25	<0.50
TPA	3	10	<100	<0.50	12	23	51	0.21	14	80	8.3	240	25	<0.50
TPA	3.5	13	<100	<0.50	12	15	34	<0.20	12	60	8.5	560	<25	<0.50
TPA	0	8.6	<100	<0.50	21	7	43	<0.20	14	76	8	<100	28	<0.50
TPA	0.5	10	<100	<0.50	13	28	79	0.22	18	100	8.5	250	24	<0.50
TPB	1	9.8	<100	<0.50	11	27	80	0.21	18	99	8.4	260	25	<0.50
TPB	1.5	9.6	<100	<0.50	13	23	44	<0.20	25	83	8.3	440	<25	<0.50
TPB	3	12	<100	<0.50	17	120	120	0.22	28	160	7.6	310	330	<0.50
TPC	0	16	<100	<0.50	15	33	74	0.23	18	77	6.6	460	230	<0.50
TPC	0.5	8.7	<100	<0.50	12	17	50	<0.20	11	64	7.9	280	150	<0.50
TPC	1	8.1	<100	<0.50	16	9.5	35	<0.20	5.9	38	7.8	<100	<25	<0.50
TPC	2	7.5	<100	<0.50	18	7.1	30	<0.20	6.1	34	8	<100	<25	<0.50
TPC	2.5	9.7	<100	<0.50	20	7.8	38	<0.20	10	62	7.9	<100	<25	<0.50
TPC	3	10	<100	<0.50	12	21	54	<0.20	13	72	8.7	230	<25	<0.50
TPC	4	9.6	<100	<0.50	17	9.8	33	<0.20	12	66	8	<100	<25	<0.50
TPD	0	9	<100	<0.50	16	30	22	0.36	20	53	6.8	<100	<25	<0.50
TPD	1	9.3	<100	<0.50	14	27	29	0.21	20	59	6.4	180	<25	<0.50
TPD	1.5	7.9	<100	<0.50	13	25	20	<0.20	21	55	7	<100	<25	<0.50
TPD	2	8.6	<100	<0.50	14	26	21	<0.20	22	60	6.8	<100	<25	<0.50
TPD	2.5	9.3	<100	<0.50	16	26	22	<0.20	22	56	6.8	<100	<25	<0.50
TPD	3	7.4	<100	<0.50	12	21	16	<0.20	20	54	6.9	110	<25	<0.50
TPD	4	7.5	<100	<0.50	11	18	16	<0.20	20	55	6.9	<100	<25	<0.50
Guideline Value		20 SGV	N/A	1 (pH6) 2 (pH7) 8 (pH8) SGV	130 (as Cr VI) SGV	190 DIV	450 SGV	8 SGV	50 SGV	720 DIV	N/A	2000 IC	5000 DIV	

SGV = CLEA Soil Guideline Value
DIV = Dutch Intervention Value
N/S = Not Scheduled
I/S = Industry Standard
IC = ICRCL Guideline Value

APPENDIX M

ASIDOHL Report

New Road Farm, Varteg Road, Blaenavon, Monmouthshire

ASSESSMENT OF THE SIGNIFANCE OF THE IMPACT OF DEVELOPMENT ON HISTORIC LANDSCAPE AREAS ON THE REGISTER OF LANDSCAPES OF HISTORIC INTEREST IN WALES

ASIDOHL

Paratowyd gan Archaeoleg Cambria
Ar gyfer ExCal Ltd

Prepared by Cambria Archaeology
For ExCal Ltd

REGISTERED IFA ORGANISATION

ARCHAEOLEG CAMBRIA ARCHAEOLOGY

ARCHAEOLEG CAMBRIA ARCHAEOLOGY

RHIF YR ADRODDIAD / REPORT NO. 2005/64

Mai 2005
May 2005

New Road Farm, Varteg Road, Blaenavon, Monmouthshire ASIDOHL

Gan / By

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ASIDOHL:
New Road Farm, Varteg Road, Blaenavon, Monmouthshire

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7.0 SUMMARY STATEMENTS AND CONCLUSIONS

ILLUSTRATIONS

ASSESSMENT OF THE SIGNIFANCE OF THE IMPACT OF DEVELOPMENT ON HISTORIC LANDSCAPE AREAS ON THE REGISTER OF LANDSCAPES OF HISTORIC INTEREST IN WALES

ASIDOHL:

New Road Farm, Varteg Road, Blaenavon, Monmouthshire

1.0 STAGE 1 - CONTEXTUAL INFORMATION

1.1 The proposed development, planning issues and the ASIDOHL

The land for the proposed housing development is located at New Road Farm, Varteg Road, on the southwestern edge of Blaenavon, Monmouthshire (NGR SO 253083). The site comprises the farm building complex and almost 5 hectares of surrounding agricultural land.

An outline planning application for residential development was approved in 1992 (91/P/16173). This permission has now lapsed. In 2004 a further planning application was submitted, the proposal being to build 90 houses and undertake 1 barn conversion. It was this application which gave rise to the requirement for an Environmental Assessment, of which this report forms part. However, the site is specifically identified for residential development (Policy S1/1) in the Torfaen Local Plan, adopted July 2000, which postdates the inclusion of the locality in the Register of Landscapes of Outstanding Historic interest in Wales. Nevertheless, the importance of the landscape is recognised by the Local Plan, where at Policy H7 it states:

"Development proposals which are of such a scale that they would adversely affect or visually impinge upon the overall integrity of the 'Landscape of Outstanding Historical Interest' at Blaenavon will not be permitted."

The current proposal being put forward by the developer, Brickyard Homes Ltd, is for a 117 house development on the New Road Farm land, together with the conversion to residential of the existing barn and retention of the existing farmhouse.

Excal Ltd is undertaking an Environmental Impact Assessment (EIA) for the proposals. Cambria Archaeology was commissioned by them to undertake an archaeological assessment for the archaeology/cultural heritage part of the EIA.

The archaeological assessment (Schlee 2005) researched the cartographic and documentary evidence in order to compile the historic development of the proposed area of development. In addition, the likely main impacts of a proposed development on the archaeological and cultural/historical resource of the area was outlined, and the extent to which mitigation might reduce these impacts was explored.

The proposed development area lies within the Blaenavon HLW (Gt) 1 landscape, on the *Register of Landscapes of Special Historic Interest in Wales* (Cadw 2001). In 2004, a historic landscape characterisation project by Glamorgan Gwent Archaeological Trust (Roberts and Jones) identified, characterised and described twenty-one Historic Landscape Character Areas (HLCAs) in the Blaenavon Registered Landscape (Figure 1). The area of the proposal lies within HLCA 018.

As a consequence of its Registered Landscape status, an assessment of the significance of the impact of development on the historic landscape (ASIDOHL) has been requested by Glamorgan Gwent Archaeological Trust (GGAT) in their capacity as advisors to the Local Authority. This ASIDOHL, which forms an additional part of the EIA has also been undertaken by Cambria Archaeology.

In addition to the Historic Landscape designation, the proposed development site is also within the area now registered as an ICOMOS World Heritage Site, in recognition of its archaeological and historic significance. While there are no additional statutory procedures that are required to be undertaken as a consequence of World Heritage designation, the Management Plan for the World Heritage Site, recognizes recognises the role of the national and local planning policies in constraining inappropriate development.

Although the ASIDOHL process is specifically designed to provide a staged process for the assessment of impact of development on the historic landscape area, it is recognised that it may not be appropriate or applicable to every planning situation. Several shortcomings in the ASIDOHL process have become apparent during the compilation of this document.

This ASIDOHL was undertaken with reference to and in accordance with the five stages provided in the *Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process* (Cadw 2003). This document should be consulted in conjunction with this assessment.

A field visit to the proposed development site and environs was undertaken as part of the preparation of the archaeological/cultural heritage section of the current EIA. Historic landscape register descriptions, historic character area descriptions, maps and photos are included as appendices to this report.

1.1 A summary of the historical background

The site is part of an area of relict pre-industrial agricultural landscape on the southwest fringes of Blaenavon town. It is landscape that has not been impacted upon by industrial activities and where the traditional agricultural land management has continued. The farm buildings may be of 17th century origin while the field system may have medieval origins. Although the land was bought by the Blaenavon Iron Company, unlike the majority of other enclosed land in the Blaenavon area, it was never used for large-scale mineral extraction, waste tipping or industrial housing, though the two former quarries, may have been used for mineral extraction or prospection. The area, therefore, represents a rare survival of such a landscape within the Historic Landscape Area and more so within the World Heritage Site. A more detailed description of the historic background to the proposed development area is presented in the desk-top survey undertaken prior to this ASIDOHL (Schlee 2005).

2.0 STAGE2 - ASSESSMENT OF DIRECT, PHYSICAL IMPACTS OF THE DEVELOPMENT

2.1 Character elements of HLCA 018

The Cwmavon Industrial Transport Corridor HLCA 018 covers an area of approximately 240 ha. The HLCA description (Appendix 1) and maps (Figs 1 and 2) shows that the area is defined primarily from the point of view of its industrial archaeology. Underpinning this aspect of the area is the pre-industrial landscape upon which the industrial features were developed.

The pre-industrial landscape essentially consisted of enclosed farmland on the valley sides surrounded by unenclosed common land. In the late medieval period the northwestern end of the area (of which the proposed development area is part) formed the eastern limit of a settlement and associated enclosed land which is thought to have early medieval origins. This settlement formed the early origins of Blaenavon. The proposed development site forms part of the only surviving area of this original core land within and beyond HLCA 018 that has escaped modification by industrial activities or land reclamation. Elsewhere, enclosed land belonged to other freeholds and was not associated with the development of Blaenavon. Parts of this landscape survive in HLCA 003 but in a less complete state.

Approximately 85.0 ha of the pre-industrial landscape have been planted as forestry. The land-use in roughly another 115 ha of former farmland in the character area, has changed in other ways, including industrial development and settlement. The character of this change alters largely in accordance with its distance from the town of Blaenavon.

The area of agricultural land proposed for development lies within a much smaller (c 28 ha) 'landscape character sub-area' within HLCA 018, of surviving pre-industrial evolved/irregular enclosed agrarian farmland and its associated settlement. Its landscape value is increased specifically because of its location in relation to the town of Blaenavon and the surrounding unenclosed common lands. Nowhere else within HLCA 018, and the Blaenavon HLA as a whole, does this interface between town, farm and common land, survive in such a relatively unaltered state. Henceforth this sub-area will be referred to as the 'Varteg Road sub-area'.

In addition to the survival of the agricultural landscape in the Varteg Road sub-area, there is a considerable body of documentary evidence recording the details of land ownership in the area to as far back as 1497. The combination of documentary evidence linked to a surviving landscape is very uncommon. It sets this area of enclosed agricultural land apart from other areas of similar character.

As a result of the diversity of landscape characteristics that have been included within HLCA 018, there is a danger that the importance of the Varteg Road sub-area proposed for development is not given sufficient value within the ASIDOHL. In an attempt to address these concerns, The ASIDOHL process has been applied at two levels, firstly at the scale of the whole HLCA, and secondly at the level of the Varteg Road sub-area.

The entire HLCA 018 is also within the area designated as the Blaenavon World Heritage Site. Because of this status consideration should also be given to the significance of the landscape character sub-area in relation to its value as a cultural-historical resource within the WHS as a whole.

2.2 Physical impacts in absolute terms

HLCA 018
The entire area proposed for development lies at the western end of HLCA 018, the Cwmavon Industrial Transport Corridor. This is therefore the only HLCA upon which the proposed development will have a direct physical impact. HLCA 018 covers an area of approximately 240 ha. The loss of area to the development will be c. 5.0 ha, which is roughly 2% of the HLCA. This gives a Magnitude and Score of Very Slight - 1.

Varteg Road sub-area
The area proposed for development also lies within entirely within the Varteg Road sub-area. Considered in isolation, this landscape covers an area of approximately 28 ha. The proposed development of 5 ha would therefore have a direct physical impact (permanent loss or removal) on roughly 18% of this area. The Magnitude and Score would then be valued as Slight – 2.

2.3 Direct physical impacts in relative terms - HLCA 018

2.3.1 Field system

The land proposed for development is part of the Blaenavon Registered Historic Landscape Area, and is therefore recognised as being of national importance. It is, however, the industrial component rather than the relict agricultural landscape that is the prime reason for its recognised importance.

The field system consists of the field boundaries considered as a group, and as part of the wider agricultural landscape. Along the valley bottom and slopes around Blaenavon is an irregular enclosed-field system primarily defined by drystone walls and associated with dispersed farmsteads. They are a feature of upland and marginal environments resulting from the expansion of agricultural land into marginal areas in response to population increase.

The proposed development will have an impact upon the setting of the field system within the development area. Most of the field boundaries and associated features (with the exception of the field clearance and lynchet features) will, however, remain as visible features within or around the development. Following mitigation, some aspects of the field system will be enhanced.

HLCA 018

Within HLCA 018 as a whole, the magnitude of direct physical impact of development upon the field system component of the landscape will be less than 5%.
Category of significance: A - 4
Magnitude of impact: Very Slight – 1

Varteg Road sub-area

The proposed development of 5 ha would have a direct physical impact on less 5% of the 28 ha of field system in the Varteg Road sub-area.
Category of significance: A - 4
Magnitude of impact: Very Slight – 1

2.3.2 Field boundaries

There are a variety of field boundaries within and around the perimeter of the farm holding. The boundary along the northern edge is a post and wire fence. The boundary along the Varteg Road varies, but is primarily a low bank, topped by a post and wire fence. Both these boundaries have been established since the construction of the road and railway. Elsewhere, the field boundaries are older and consist mainly of drystone walling in various states of disrepair. They no longer function as field boundaries and are now strengthened by post and wire fencing. They are nevertheless of considerable significance in historic landscape terms. Under the present agricultural management of the land they will no doubt continue to deteriorate, but will nevertheless still survive as an archaeological feature and resource.

Where it bounds field B, the boundary between New Road Farm and the neighbouring farmland to the south has been relatively well maintained and repaired. Along the edge of field A, however, it survives only as a low line of stone rubble. The proposed development intends to retain existing field boundaries wherever possible. The boundary that runs between sites G and H, and between Site G and the farmhouse (the proposed location of housing block B) will, however, be lost. The boundary between fields B and C will be retained and repaired. This will prolong the life of the boundary as a landscape feature.

HLCA 018
The exact percentage of total loss, or other significant impact on the total length of historic field boundaries within HLCA 018 is undoubtedly very small.
Category of significance: B - 3
Magnitude of impact: Very Slight – 1

Varteg Road sub-area
The magnitude of impact upon field boundaries in relation to the Varteg Road sub-area will be more considerable. If up to 20% of the existing field boundaries are lost, the magnitude of effect will be:
Category of significance: B - 3
Magnitude of impact: Moderate – 2

2.3.3 Field Clearance / Lynchet
Lynchets are formed by past agricultural practices. They develop as a consequence of repeated ploughing, eventually coming to define field boundaries. These boundaries appear to have been subsequently formalised with drystone walls. The corners of the fields become difficult to cultivate and can be used as convenient places to dump stones cleared from the fields during cultivation.

These features (and the remnants of drystone wall that runs between them) are situated in the proposed location of an access road and housing block B. The proposed development will therefore necessitate the destruction of these features. They have been assigned to Category D (score 1).

HLCA 018
The number of similar sites elsewhere in HLCA 018 is unknown. A moderate magnitude of impact might therefore be reasonable.
Category of significance: D- 1
Magnitude of impact: Moderate – 3

Varteg Road sub-area
There are likely to be few other examples of these features within the landscape character sub-area.
Category of significance: D - 1
Magnitude of impact: Very Severe – 6

2.3.4 Agricultural settlement and farm buildings
Two standing buildings exist within the proposed development area. These are the farmhouse and barn of the New Road Farm holding. The buildings have only been assessed from their exteriors, and are probably of 18th century origin, but they may have earlier origins. Being of regional importance, they have been attributed to Category B.

The development scheme proposes the conversion of the barn to a residential dwelling. Although there will be a direct physical impact upon these buildings, because of the extent of previous alterations an impact rating of Very Slight is appropriate.

HLCA 018
Within HLCA 018 as a whole, the magnitude of direct physical impact of development upon the farm buildings will be less than 5%.
Category of significance: B - 3
Magnitude of impact: Very Slight – 1

Varteg Road sub-area
Although there will be a direct physical impact upon these buildings, because of the extent of previous alterations an impact rating of Very Slight is appropriate.
Category of significance: B - 3
Magnitude of impact: Very Slight – 1

2.3.5 Quarries

The larger of the two quarries (J) located on the site has already been backfilled and re-landscaped. The site of this quarry will form part of Block G in the proposed development. Any further impact on this site is likely to be of limited if any significance (category 6).

The smaller quarry (I) is located close to the drystone wall between fields B and C (figure 1). This location is to be retained as an open area within the development and any impact is likely to be slight.

Two quarry sites have been identified within the area of land proposed for development. Similar quarries have been identified from cartographic evidence at other locations along the valley floor to the south. The total number of such sites within HLCA 018 is however, not known, so defining the two identified sites as a percentage of the total number of sites of this type is difficult. Quarry (J) has been previously backfilled and re-landscaped. Quarry (I) is unlikely to be impacted upon by the development.

HLCA 018
The proposed development is unlikely to have any appreciable further impact upon these features.
Category of significance: D - 1
Magnitude of impact: Very Slight – 1

Varteg Road sub-area
The proposed development is unlikely to have any appreciable further impact upon these features.
Category of significance: D - 1
Magnitude of impact: Very Slight – 1

2.3.6 Other components

Industrial landscape

HLCA 018
There will be no direct impact on buildings connected with industrial processing and manufacture, associated industrial workers housing, or on any features of the of industrial transport network. These components are considered as being of national importance within the context of the HLA and WHS.
Category of significance: A - 4
Magnitude of impact: Very Slight – 1

Varteg Road sub-area
Industrial features are specifically excluded as a component of this sub-area.

Forestry

HLCA 018
There will be no direct physical impact on characteristics such as areas of forestry and woodland.
Category of significance: B -3
Magnitude of impact: Very Slight - 1

Varteg Road sub-area
There will be no direct physical impact on characteristics such as areas of forestry and woodland.
Category of significance: B -3
Magnitude of impact: Very Slight - 1

2.4 Direct physical impacts in landscape terms

The group value of the various industrial transport routes, associated structures, industrial development and workers housing, has been identified as the main unifying theme defining the character area. It therefore has a Very High extrinsic value and a score of 4.

The agricultural landscape character sub-area is also of national importance in the context of the WHS and the Blaenavon HLA. The rare survival of extensive associated documentary evidence gives an additional importance. The area proposed for development functions as a kind of 'buffer zone' situated at the interface between the current edge of Blaenavon and the surrounding unenclosed common lands. Although the pre-industrial agricultural landscape survives elsewhere in the character area, nowhere else within the Blaenavon historic landscape as a whole, does this interface between town, farm and common land survive. Because of its unique location in relation to the town settlement, it therefore has a Very High extrinsic value and a score of 4.

2.4.1 Field system

Field boundaries are a significant landscape feature regardless of their condition. They contribute to the character of the landscape and reflect changes in land management, property divisions and other aspects of human impact upon the landscape. In their current state the field boundaries are a key indicator of the antiquity of the agricultural landscape. They relate to documentary evidence for the ownership of the holding. They help to define the change in land-use between the town, enclosed farmland and the unenclosed common land. Combined with the field system, the field boundaries form the context and setting of the farmstead buildings.

The proposed development will have an impact upon the setting of the field system within the development area. Most of the field boundaries and associated features (with the exception of the field clearance and lynchet features) will, however, remain as visible features within or around the development. Following mitigation, some aspects of the field system will be enhanced.

HLCA 018
Category of significance: A - 4
Landscape value: High – 3

Varteg Road sub-area
Category of significance: A - 4
Landscape value: Very High – 4

2.4.2 Field boundaries

The proposed development has been designed to retain existing field boundaries wherever possible. As a consequence, although they may continue to deteriorate, their presence as an archaeological resource will be maintained.

The boundary that runs between sites G and H, and between Site G and the farmhouse is situated in the proposed location of housing block B). It will therefore have to be removed, buried, or otherwise severely damaged.

Although it will become segmented by access roads, it is intended to retain the boundary between fields B and C as a feature of the development. Rubble from sections of wall that will be lost will be used to repair or re-instate this drystone

wall. This would prolong the life of the boundary as a landscape feature and as such can be considered to have a beneficial effect on the feature.

HLCA 018
Category of significance: B - 3
Landscape value - Medium - 2

Varteg Road sub-area
Category of significance: B - 3
Landscape value - High - 3

2.4.3 Field Clearance / Lynchet

These features (and the remnants of drystone wall that runs between them) are situated in the proposed location of an access road and housing block B. As a result there will be complete destruction of these features.

HLCA 018
Category of significance: D - 1
Landscape value: Low - 1

Varteg Road sub-area
Category of significance: B - 3
Landscape value: High – 3

2.4.4 Agricultural settlement and farm buildings

Although the farm buildings themselves will not be directly impacted upon by the proposed development, their context and setting will be severely impacted upon. Only one other farmstead settlement (Coed Afon), which has also been considerably enlarged and remodelled, exists within the Landscape character sub-area.

HLCA 018
Category of significance: B - 3
Landscape value: Medium – 2

Varteg Road sub-area
Category of significance: B - 3
Landscape value: High – 3

2.4.5 Quarries

The larger of the two quarries (J) located on the site has already been backfilled and re-landscaped. The site of this quarry will form part of Block G in the proposed development. Any further impact on this site is likely to be of limited if any significance. The smaller quarry (I) is located close to the drystone wall between fields B and C. It is a minor landscape feature but has value within the context of the land-use history of the site. This location is to be retained as an open area within the development and any impact is likely to be slight. Similar features survive elsewhere in the valley bottom within HLCA 018.

HLCA 018
Category of significance: D - 1
Landscape value: Low – 1

Varteg Road sub-area
Category of significance: D - 1
Landscape value: Low – 1

2.4.6 Other features

Industrial landscape
The various industrial transport routes, associated structures, industrial development and workers housing, have been identified as the main unifying theme defining the character area. It therefore has a Very High extrinsic value.

HLCA 018
Category of significance: A - 4
Landscape value: Very High – 4

Varteg Road sub-area
The industrial landscape is specifically excluded from this sub-area.

Forestry
Areas of woodland and forestry have been identified as a characteristic within the HLCA, but their significance is relatively low in comparison to the industrial and agricultural landscapes. Little formal woodland is present within the Varteg Road sub-area, except mature trees along field boundaries, and around the ravine in the northeast corner of the site.

HLCA 018
Category of significance: C - 2
Landscape value: Medium – 1

Varteg Road sub-area
Category of significance: C - 2
Landscape value: Low – 1

2.5 Landscape value effect

2.5.1 Field system

The proportion of this landscape element within the HLCA 018 will be slightly reduced by the proposed development (score 1). Within the landscape character sub-area the likely proportion of this element will be Moderately Reduced.

HLCA 018

Category of significance: A -4
Magnitude of impact: Slightly Reduced - 1

Varteg Road sub-area

Category of significance: A - 4
Magnitude of impact: Moderately Reduced - 2

2.5.2 Field boundaries

The proportion of loss of this landscape element from the proposed development within HLCA 018 will be slight. Within the landscape character sub-area the proportion of this element will be Moderately Reduced.

HLCA 018

Category of significance: B - 3
Magnitude of impact: Slightly Reduced - 1

Varteg Road sub-area

Category of significance: B - 3
Magnitude of impact: Moderately Reduced - 2

2.5.3 Field Clearance / Lynchet

Two possible deserted rural settlement sites were identified in the desk based assessment. These have been evaluated and found to be the result of past agricultural practices - field clearance and lynchets. The proportion of this landscape element within the HLCA 018 will be Moderately Reduced.

HLCA 018

Category of significance: D- 1
Magnitude of impact: Moderately Reduced - 2

Varteg Road sub-area

Category of significance: C - 2
Magnitude of impact: Lost - 4

2.5.4 Agricultural settlement and farm buildings

The proportion of this landscape element within the HLCA 018 likely to be lost from the proposed development will be None. The likely proportion of loss of this element within the landscape character sub-area will be None.

HLCA 018

Category of significance: B - 3
Magnitude of impact: None - 0

Varteg Road sub-area

Category of significance: B - 3
Magnitude of impact: None - 0

2.5.5 Quarries

The loss of the proportion of this component within the HLCA 018 from the proposed development will be slight. The likely proportion of loss of this element within the landscape character sub-area will be slight.

HLCA 018

Category of significance: D - 1
Magnitude of impact: Slightly Reduced - 1

Varteg Road sub-area

Category of significance: D - 1
Magnitude of impact: Slightly Reduced - 1

2.5.6 Other historic landscape features

Industrial landscape

HLCA 018

Category of significance: A - 4
Magnitude of impact: None - 0

Varteg Road sub-area

Not present.

Forestry

HLCA 018

Category of significance: C - 2
Magnitude of impact: None - 0

Varteg Road sub-area

Category of significance: C - 2
Magnitude of impact: None – 0

2.6 Historic landscape character area 017

The proposed development will have no direct physical impact on HLCA 017 Cwm Mawr and Coed-Y-Prior.

2.7 Historic landscape character area 019

The proposed development will have no direct physical impact on HLCA 019 Mynydd Varteg Fach Opencast.

2.8 Historic landscape character area 002

The proposed development will have no direct physical impact on HLCA 00218 Blaenavon Urban Expansion.

2.9 Historic landscape character area 003

The proposed development will have no direct physical impact on HLCA 003 Glantorfaen.

2.10 Summary of direct physical impacts

HLCA 018

Absolute Impact (Loss of Area) 5 ha, 2% area total area HLCA = 240 ha	Magnitude and Score Very Slight – 1 (average score = 7) Overall score: 8 Overall impact: Slight

Relative and landscape impacts (loss of known elements or characteristics) and scores

Element / % loss	Category	Magnitude	Landscape value	Landscape val. effect
Field system xm, <5%	A - 4	V. Slight - 1	High - 3	Slightly Reduced - 1
Field boundaries xm, <5%	B - 3	V. Slight - 1	High - 2	Slightly Reduced - 1
Field Clearance/Lynchet, 20%?	D- 1	Moderate - 3	Medium - 1	Mod. reduced - 2
Agricultural settlements, 0%?	B - 3	V. Slight - 1	High - 3	Unaffected - 0
Quarries, <5%?	D - 1	V. Slight - 1	Low - 1	Slightly Reduced - 1
Industrial landscape features, 0%	A - 4	V. Slight - 1	Very high - 4	Unaffected - 0
Forestry/ woodland, 0%	B - 3	V. Slight - 1	Medium - 2	Unaffected - 0

Varteg Road Sub-area

Absolute Impact (Loss of Area) 5 ha, 18% area total area of sub-area = 28 ha	Magnitude and Score Slight – 2 (average score = 9) Overall score: 11 Overall impact: Moderate

Relative and landscape impacts (loss of known elements or characteristics) and scores

Element / % loss	Category	Magnitude	Landscape value	Landscape value effect
Field system 5 ha, 18%	A - 4	Slight – 2	High - 4	Moderately reduced - 2
Field boundaries xm, <30%	B - 3	Moderate – 2	High - 3	Moderately reduced - 2
Field Clearance/Lynchet 100%	C- 2	V. Severe - 6	Medium - 3	Lost 4
Agricultural settlement, 0%	B - 3	V. Slight - 1	High - 3	Unaffected - 0
Quarries, <5%	D - 1	V. Slight - 1	Low - 1	Slightly Reduced - 1
Woodland	C - 2	V. Slight - 1	Low - 1	Slightly Reduced - 1

2.11 The overall magnitude of direct physical impacts

The overall magnitude of direct physical impact for HLCA 018 is:

49 ÷ 7 = 7 (+ 1) = 8 = Slight

The overall direct physical impact for the Varteg Road Sub-area is:

53 ÷ 6 = 8.83 (+ 2) = (10.83) = 11 = Moderate

3.0 STAGE 3 A - ASSESSMENT OF INDIRECT PHYSICAL IMPACTS

3.1 Historic landscape character area 018

Indirect physical impacts include the following:

3.1.1 Field System

The proposed development would result in a change of use resulting in the cessation of its traditional agricultural management within the development area, but would not prevent it continuing elsewhere.

HLCA 018

Category of significance: A - 4
Magnitude of impact: C - Very Slight - 1

Varteg Road sub-area

Category of significance: A – 4
Magnitude of impact: Very Slight - 1

3.1.2 Field boundaries

At present there is no public access to the farmland. Although the existing drystone walls will continue to deteriorate under the present conditions, there is a possible, though very slight increased risk of damage to field boundaries from increased access, following development of the area.

HLCA 018

Category of significance: B – 3
Magnitude of impact: Very Slight - 1

Varteg Road sub-area

Category of significance: B – 3
Magnitude of impact: Very Slight - 1

3.1.3 Farmstead

The proposed development would effectively remove the farmstead from its agricultural setting and sever the contextual relationship between these two elements of the historic landscape.

HLCA 018

Category of significance: B – 3
Magnitude of impact: Moderate - 1

Varteg Road sub-area

Category of significance: B – 3
Magnitude of impact: Very severe - 6

3.1.4 Group value

There would be a reduction/destruction of group value in relation to the neighbouring farm.

HLCA 018

Category of significance: B – 3
Magnitude of impact: Moderate - 1

Varteg Road sub-area

Category of significance: B - 3
Magnitude of impact: Very Severe - 6

3.2 Historic landscape character area 017

The proposed development will have no indirect physical impact on HLCA 017.

3.3 Historic landscape character area 019

The proposed development will have no indirect physical impact on HLCA 019.

3.4 Historic landscape character area 002

As it is defined at present, there is no indirect physical impact on HLCA 002.

3.5 Historic landscape character area 003

The proposed development will have no indirect physical impact on HLCA 003.

3.6 Summary of indirect physical impacts

HLCA 018

Characteristic	Category	Impacts	Magnitude & Score
Field system	A – 4	Change of land use	Very slight - 1
Field boundaries	B - 3	Increased risk of damage	Very slight - 1
Farmstead	B - 3	Severance of context within landscape	Very slight - 1
Group value	B - 3	Reduction of group value with neighbouring farm	Very slight - 1

Total indirect physical impact 17 ÷ 4 = 4.25

Varteg Road Sub-area

Characteristic	Category	Impacts	Magnitude & Score
Field system	A – 4	Change of land use	Very slight - 1
Field boundaries	B - 3	Increased risk of damage	Very slight - 1
Farmstead	B - 3	Severance of context within landscape	V. Severe - 6
Group value	B - 3	Reduction of group value with neighbouring farm	V. Severe - 6

Total indirect physical impact 27 ÷ 4 = 6.75

4.0 STAGE 3 B - ASSESSMENT OF INDIRECT (NON-PHYSICAL), VISUAL IMPACTS

4.1 HLCA 018 Cwmavon Industrial Transport Corridor

The proposed housing development will have an indirect (non-physical), visual impact on several HCLAs. The degree of visual impact decreases with distance from the proposed development. Because of the intervisibility and overlap of impacts between HLC 018, the Varteg Road sub-area, and the other HLCAs, they are considered together. The following potential visual impacts have been identified:

4.2 The impact of the development on visual connections between related elements

The proposed development will break the existing coherence of the extent of the town in relation to its landscape and setting. The function, character and visual impact of the agricultural landscape in the specific area of the proposed development has remained essentially unchanged for a considerable period. Change has occurred to the surrounding landscape and encroachment on the limits of the landscape character sub-area has occurred. The visual significance of the surviving agricultural land has increased accordingly.

Category of significance: A – 4.
Magnitude of impact: Severe

4.3 The visual impact of the development

4.3.1 Form and appearance

The proposed development is for 117 houses to be built on the farmland at New Road Farm. The design, shape and appearance of the buildings is intended to reflect and be in keeping with the existing housing within the various HLCAs that make up the urban core and urban expansion of Blaenavon.

The proposed layout of the development is intended to reflect the topography and former land use of the area (the enclosed field system) and also to reflect the combination of planned and organic street layout that has evolved within the urban settlement areas of Blaenavon.

It is intended that quality trees that are present in the existing field boundaries will be retained and that those in poor health will be replaced. Two of the three internal field boundaries will be retained. The third, will be lost, along with the associated field clearance and lynchet features.

The existing landscape will undergo a significant change - from open fields to residential. However, the general topography of the site will remain, just as it does in Blaenavon town today. By retaining two of the three field boundaries at least part of the underlying field pattern will be apparent. Just as it is in other parts of Blaenavon where development has taken place on a field by field basis.

Form:
Category of significance: not applicable
Magnitude of impact: Moderate 3

Appearance:
Category of significance: not applicable
Magnitude of impact: Moderate - 3

4.4 Views

The proposed development area will be visible to varying degrees from all directions. With the retention of mature trees within and around the development area, seasonal variation in foliage will have a considerable influence on the extent to which the proposed development will be visually intrusive, especially at increasing distance from the development. The character of property boundaries bordering the development will also have an effect on the visual impact from all directions.

4.4.1 From within HLCA 018 - Close

The proposed development will have a visual impact on the approach to Blaenavon along the Varteg Road. The transition form rural agricultural to urban environment will occur sooner and the existing contrast between the two environments and views down the valley will be obscured.

The former railway route that runs along the southern edge of the site is used as public footpath and cycle way. At present this route offers views over the open farm pasture, across the valley with clear views of the town. This view encapsulates the contrast between town and country and the relationship between land use and topography. The proposed development would alter this view and disrupt the clarity of the existing boundaries and bring the currently relatively distant urban landscape into the immediate foreground.

The above issues are also relevant to views towards and across the proposed development area from the neighbouring property of Coed Afon. The positioning of buildings away from this boundary, should maintain its visual prominence of the boundary and minimise any visual intrusion.

The visual impact on the context and setting of the New Road Farm buildings will be considerable. Existing views from the property will also be interrupted or obscured.

Category of significance: A – 4
Magnitude of impact: Severe - 5

4.4.2 From within HLCA 018 - Distant

Views within HLCA 018 from locations at increasing distance from the proposed development are unlikely to be significantly affected.
Category of significance: A – 4
Magnitude of impact: Slight – 2

4.4.3 From HLCA 002 - close

There are likely to be clear views from a considerable number of properties on the southwest facing side of the valley across to the New Road Farm lands on the northeast facing slopes. More restricted views are available from various roads depending on their elevation and alignment.

At present these views illustrate clearly the contrast between the Urban, agricultural and upland environments. The development would detract from the clarity, pattern and visual impact of this distinction and would reduce the extent of agricultural land. It would also increase the visible area of urban expansion of the town. The severity of this impact will vary according to the elevation of the vantage point across the valley and distance from the development area.
Category of significance: A – 4
Magnitude of impact: Severe – 5

4.4.4 From HLCA 003

A few houses built along the west side of the Varteg Road (which forms the boundary between HLCA 018 and 003) have views down and across the valley would be interrupted and may be obscured by the proposed development. There will, however, be no visual impact on other parts of HLCA 003. In many ways it would make more sense to include these houses as part of HLCA 018.

Close: Category of significance: A – 4
Magnitude of impact: Severe - 5

Distant: Category of significance: A – 4
Magnitude of impact: Very slight - 1

4.4.5 From HLCA 017

Due to its elevation, and the topography of the landscape, distant views that will include the development area are possible. Because of the distances involved, the relevance and impact of the effect on the HLCA is reduced to a negligible level.

Category of significance: A – 4
Magnitude of impact: Slight - 2

4.4.6 From HLCA 019

The topography of the valley slope, the cemetery, general tree cover and the raised railway track, all mean that it is unlikely that the proposed development will have a visual impact of the development on HLCA 019.

Close: Category of significance: A – 4
Magnitude of impact: Very slight - 1

Distant: Category of significance: A – 4
Magnitude of impact: Slight - 2

4.5 Summary of indirect visual effects

HLCA 018

Characteristic	Category	Magnitude & Score
Close views within HLCA 018 - from south (from footpath)	B - 3	Severe 5
Close views within HLCA 018 - from east (from neighbouring property)	C - 2	Severe 5
Close views within HLCA 018 - from west (from road and roadside properties)	C - 2	Severe 5
Views from within HLCA 018 - Distant	D -1	Very Slight 1
Form of the development	-	Moderate - 3
Appearance of the development	-	Moderate - 3
Views from farmstead disrupted	C - 1	Very severe - 6

HLCA 002

Characteristic	Status & Score	Magnitude & Score
Visual connections between related land use elements diminished	B– 3	Severe - 5
Appreciation of group value diminished	B - 3	Considerable 4
Extent of urban environment increased	B - 3	Considerable 4

HLCA 017

Characteristic	Status & Score	Magnitude & Score
Views towards sub-area from distance altered	D - 1	Very slight -1

HLCA 019

Characteristic	Status & Score	Magnitude & Score
Close views towards sub-area altered	C - 2	Slight - 2
Views towards sub-area from distance altered	D -1	Very slight -1

Following recent discussions regarding the calculation of the overall magnitude of indirect visual impacts, it has been recognised that there is an error in the published methodology. The new calculation excludes the magnitude and score for the form and appearance of the development from the calculation of the average, but subsequently adds those scores to the average score.

Overall magnitude of indirect visual impact:

61 ÷ 11 = 5.54 (+ 3 +3) = 11.5 = Moderate

4.6 The overall magnitude of indirect impacts

To calculate the scores for overall magnitude of indirect impact, the indirect visual effects are combined with the indirect physical impact. This figure is on a scale of 1 to 32. This then needs to be converted to 24 point scale.

The following calculation include the sum of all areas with a visual impact except the Varteg Road Sub-area:

Overall magnitude of indirect impact on HLCA018

11.5 + 4.25 x 24 ÷ 32 = (11.8) = 12 = Moderate

The following calculation include the sum of all areas with a visual impact:

Overall magnitude of indirect impact on Varteg Road Sub-area

11.5 + 6.75 x 24 ÷ 32 = 13.68 = 14 = Considerable

5.0 STAGE 4 - EVALUATION OF RELATIVE IMPORTANCE

In this stage the relative importance of an HLCA (or a part of it) that is directly and/or indirectly affected is assessed in relation to the whole of the HLCA in which it lies. The relative importance of each HLCA is then assessed against the Registered landscape.

For the purposes of this ASIDOHL, the relative importance of the Varteg Road Sub-area will be assessed in relation to HCLA 018. HCLAs 018 and 002 will be assessed in relation to the Blaenavon HLA.

5.1 Evaluation of the relative importance of the Varteg Road Sub-area

For this evaluation that part of HLCA affected is taken to be the area of surviving traditionally managed enclosed farmland on the valley sides and bottom, distinguished as the Varteg Road Sub-area. There will be direct and indirect impacts on this area. The relative importance of this part of the HLCA has been assessed against the whole of the HLCA according to 11 criteria. The 11 criteria are:

5.1.1 Rarity: Land use, field system, field boundaries and associated settlements are the main elements of the landscape sub-area in which the proposed development area is located. This landscape element covers an area of approximately 28 hectares. Rarely, if anywhere else, within HLCA 018 do these elements survive in their original use as a coherent area of land, and nowhere else do they have the same physical and visual relationship to Blaenavon town.
Score: Very high

5.1.2 Representativeness: The landscape character sub-area is representative of many landscape elements that occur elsewhere within the relict pre-industrial agricultural landscape that characterises the wider HLCA. It is, however, the only physical and visual representative of an area where land-use has remained largely unchanged and coherent.
Score: Low

5.1.3 Documentation: The field system within HLCA 018 as a whole is fairly well documented. The specific area of the proposed development is, however, unusually well documented owing to its location and the history of land ownership specific to this area. The survival physical and visual links between landscape elements and documentation that exists here is very rare and is one of the aspects that has resulted in the area being given World Heritage Site status.
Score: Very high

5.1.4 Group Value: The landscape character sub-area and the wider relict agricultural landscape within the HLCA as a whole, is made up of only a few elements and therefore has a relatively low group value. The elements are: field boundaries, field system, associated farmstead settlements and deserted rural settlements.
Score: medium

5.1.5 Survival: Survival of landscape elements is good within the sub-area. Survival is probably slightly less good in the HLCA as a whole, where there have been more changes in land use.
Score: High

5.1.6 Condition: The condition of landscape elements is moderate in the development area, where there has been little land use change, particularly in comparison with other parts of the HLCA, where modern forestry and other development pressures and land use changes will all have had an impact on a variety of landscape elements. Some of the landscape elements, such as standing buildings, quarries and field boundaries however, have been altered, repaired or have deteriorated.
Score: medium

5.1.7 Coherence: The coherence of the landscape within landscape character sub-area and the proposed development area is good when compared to the remainder of the HLCA, where former agricultural land has lost much of its original function to forestry plantations, industrial development, housing, transport links and other changes in use. The sub-area has visible and physical coherence which is important in the definition of the existing town limits.
Score: Very high

5.1.8 Integrity: The landscape character sub-area has high physical and visual integrity. Despite various changes that have occurred around the landscape character sub-area and the proposed development area its visibility, integrity and legibility remain high. The contrast it provides with its surroundings that have undergone more change, enhances its integrity and is important in defining the existing town limits.
Score: Very high

5.1.9 Potential: There is very high potential for future landscape study and analysis within the landscape character sub-area and the proposed development area. This potential is enhanced by the documentary evidence associated with the area, its location in relation to Blaenavon, and its inclusion within the area of the World Heritage Site. The HLCA as a whole also has high, but perhaps different potential.
Score: Medium

5.1.10 Amenity: Because of it general rarity and unique location, the landscape character sub-area has very high potential to be developed as a public educational amenity within the context of the history and development of Blaenavon and the surrounding landscape. Other areas within the HLCA will no doubt have other, different educational and recreational potential. The potential and significance of the development area as a resource and amenity is enhanced by its inclusion within the area of the World Heritage Site.
Score: Low

5.1.11 Associations: The landscape character sub-area within which the proposed development is situated is strongly associated with unusually detailed documentary evidence covering a long time span. It is recognised as a rare surviving example of an enclosed agricultural landscape with probable Pre-norman (native Welsh). It is therefore strongly associated specifically with the study of the development of Welsh land tenure systems and the historical development of Blaenavon.
Score: Low

5.2 Evaluation of the relative importance of the Varteg Road sub-area to the whole Blaenavon HLA

The Varteg Road sub-area is not only a unique survival within HLCA 018. Although similar areas of relict agricultural landscape with possible early medieval origins can be discerned in HLCA 003, they have not survived in such an unaltered and coherent state. In other HLCAs, documentary evidence is all that survives of the core settlement area, the physical remains having been destroyed by industrial activities. Nowhere else in the HLA does the relationship between town, farmland and common land survive with such coherence. Comparison of the Varteg Road Sub-area against the whole HLA is a lengthy task, ultimately with limited impact on the final outcome. The assessment has nevertheless been made according to the same 11 criteria, with reference to the observations made on HLCA 018.

Rarity: Very high
Representativeness: Low
Documentation: High
Group Value: medium
Survival: High
Condition: medium
Coherence: High
IntegrityScore: High
Potential: High
Amenity: Low
Associations: Low

5.3 Evaluation of the relative importance of HLCA 018 to the whole Blaenavon HLA

HLCA018 contains numerous landscape components that are of importance in their relation to the industrial core of the HLA. The area contains transport links, industries and settlement that were developed in response to the increasing growth of Blaenavon. It also contains the relict agricultural landscape, some of which pre-dates Blaenafons industrial past. While some of these components are represented in other HLCAs, others are not.

Rarity: Medium
Representativeness: Low
Documentation: Medium
Group Value: Medium
Survival: High
Condition: High
Coherence: High
IntegrityScore: High
Potential: Medium
Amenity: Low
Associations: Low

5.4 Evaluation of the relative importance of HLCA 002 to the Blaenavon HLA

Although there is no direct physical impact on HLCA 002, if the proposed development were to go ahead, the physical area of urban expansion that defines HLCA 002 would be increased. There will have an indirect non-physical visual impact upon HLCA 002. For this evaluation of relative importance of the HLCA to the whole of the Blaenavon HLA is considered according to the 11 criteria used

previously, but due to the indirect nature of the impact, detailed discussion has been foregone.

Rarity: Very high
Representativeness: High
Documentation: High
Group Value: Very high
Survival: Very high
Condition: High
Coherence: Very high
Integrity: Very high
Potential: High
Amenity: Low
Associations: High

5.5 Evaluation of the relative importance of Blaenavon HLA at a national level

The Blenavon HLA is one of only 6 or so, that are primarily defined by their industrial content. Of these, four are associated with the slate industry, and one with the copper industry. Merthyr Tudful HLA, is also associated with the coal and iron industries, but has developed in different ways, to the detriment of its industrial heritage. Blaenavon stands out in terms of the completeness and integrity of the elements that make up the landscape.

Rarity: Very high
Representativeness: Medium
Documentation: Very high
Group Value: Very high
Survival: Very high
Condition: Very high
Coherence: Very high
Integrity: Very high
Potential: Very High
Amenity: Very high
Associations: Very high

5.6 Summary of relative importance of HLCAs

Importance of the Varteg Road Sub-area in HLCA 018

CRITERION VALUE / SCORE	V. HIGH / V. GOOD 4	HIGH / GOOD 3	MOD/ MED 2	LOW 1	POOR / NONE 0
RARITY	/				
REPRESENTATIVENESS				/	
DOCUMENTATION	/				
GROUP VALUE			/		
SURVIVAL		/			
CONDITION			/		
COHERENCE	**/**				
INTEGRITY		/			
POTENTIAL			/		
AMENITY				**/**	
ASSOCIATIONS				/	
27 ÷ 44 x 100= Grade of overall value = 61.3					

Importance of the Varteg Road Sub-area in the Blaenavon HLA

CRITERION VALUE / SCORE	V. HIGH / V. GOOD 4	HIGH / GOOD 3	MOD/ MED 2	LOW 1	POOR / NONE 0
RARITY	/				
REPRESENTATIVENESS				/	
DOCUMENTATION		/			
GROUP VALUE			/		
SURVIVAL		/			
CONDITION			/		
COHERENCE		/			
INTEGRITY		/			
POTENTIAL			/		
AMENITY				**/**	
ASSOCIATIONS				/	
25 ÷ 44 x 100= Grade of overall value = 56.8 = considerable					

Importance of HLCA 018 in the Blaenavon HLA

CRITERION VALUE / SCORE	V. HIGH / V. GOOD 4	HIGH / GOOD 3	MOD/ MED 2	LOW 1	POOR / NONE 0
RARITY			/		
REPRESENTATIVENESS				/	
DOCUMENTATION			/		
GROUP VALUE			/		
SURVIVAL		/			
CONDITION		/			
COHERENCE		/			
INTEGRITY		/			
POTENTIAL			/		
AMENITY				**/**	
ASSOCIATIONS				/	
23 ÷ 44 x 100= Grade of overall value = 52.2 = Considerable					

Importance of HLCA 002 in the Blaenavon HLA

CRITERION VALUE / SCORE	V. HIGH / V. GOOD 4	HIGH / GOOD 3	MOD/ MED 2	LOW 1	POOR / NONE 0
RARITY	/				
REPRESENTATIVENESS		/			
DOCUMENTATION		/			
GROUP VALUE	/				
SURVIVAL	/				
CONDITION		/			
COHERENCE	/				
INTEGRITY	/				
POTENTIAL		/			
AMENITY				/	
ASSOCIATIONS		/			
36 ÷ 44 x 100 = Grade of overall value = 81.8 = Very High					

Importance of Blaenavon HLA in relation to other HLAs

CRITERION VALUE / SCORE	V. HIGH / V. GOOD 4	HIGH / GOOD 3	MOD/ MED 2	LOW 1	POOR / NONE 0
RARITY	/				
REPRESENTATIVENESS			/		
DOCUMENTATION	/				
GROUP VALUE	/				
SURVIVAL	/				
CONDITION	/				
COHERENCE	/				
INTEGRITY	/				
POTENTIAL	/				
AMENITY	/				
ASSOCIATIONS	/				
42 ÷ 44 x 100 = Grade of overall value = 95.4 = Very High					

5.7 The overall relative importance of the HLCAs

The average overall value of all the Historic Character Areas affected is:

61.3 + 56.8 + 52.2 + 81.8 + 95.4 = 347.5 ÷ 5 = 69.5 = 69 = High

The average overall value of all the Historic Character Areas affected excluding the Varteg Road Sub-area is:

56.8 + 52.2 + 81.8 + 95.4 = 268.2 ÷ 4 = 71.5 =71 = High

The average overall value of all the Historic Character Areas affected excluding the Varteg Road Sub-area and the HLA as a whole is:

56.8 + 52.2 + 81.8 = 190.8 ÷ 3 = 63.6 = 63 = High

The overall value of the Historic character areas affected is High.

6.0 ASSESSMENT OF OVERALL SIGNIFANCE OF IMPACT

The overall impact of the development is assessed according to table 13 in the Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process (Cadw 2003). Using the ASIDOHL process, the impact of the development on HLCA 018 is calculated as Moderate and on the Varteg Road Sub-area as Fairly Severe on the following scale:

OVERALL SIGNIFICANCE OF IMPACT	
Score	Grading
26-30	Very Severe
21-25	Severe
16-20	Fairly Severe
10-15	Moderate
4-9	Slight
1-3	Very Slight

Criteria	Notes	Score
Value of HLCAs	HLCA 018 directly and visually affected; HLCA 002 visually affected. Although not greatly affected as a whole the HLA is of high value. The Varteg road Sub-area is of importance because of its rarity, its historic significance and its visual value in the landscape.	7
Impact caused by development	Direct Physical: minor percentage loss of ground in HLCA 018 but a moderate impact on the Varteg Road sub-area. Indirect Physical: Impact on whole HLCA is slight, severe on the setting and group value of the components of the Varteg Road sub-area Indirect Visual: Moderate on the HLCAs 018 as a whole but considerable within the immediate vicinity of the development, including HLCA 002.	HLCA 018 4 Sub-area 6
Reduction in value of Historic Landscape	Impact on key elements is such that there is slight reduction in the overall value of the Historic Landscape area whole. The reduction of value of the Varteg Road Sub-area is considerable, less so in the HLCA as a whole	3
Overall significance of impact: HLCA 018 = Moderate Sub-area = Fairly severe		Total Score: HLCA 018 = 14 Sub-area = 16

7.0 SUMMARY STATEMENTS AND CONCLUSIONS

Background

The proposed development area lies within the Blaenavon Historic Landscape in Wales, on the *Register of Landscapes of Special Historic Interest in Wales* (Cadw 2001). An historic landscape characterisation project by Glamorgan Gwent Archaeological Trust (Roberts and Jones 2005) identified, characterised and described twenty-one Historic Landscape Character Areas (HLCAs) in the Blaenavon Registered Landscape. The area of the proposal lies within HLCA 018.

In 2000 Blaenavon was registered as an ICOMOS World Heritage site, in recognition of its archaeological and historic significance. The area of the World Heritage Site consists of the land that was purchased by the Blaenavon Iron Company for mineral and industrial exploitation. The proposed development site is situated within the designated area, on agricultural land on the outskirts of Blaenavon.

An assessment of the significance of the impact of development on the historic landscape (ASIDOHL) was requested by Glamorgan Gwent Archaeological Trust (GGAT) as a consequence of its Registered Historic Landscape status.

Summary of conservation, management and planning issues

The site is allocated for housing under Policy S1/1 in the current Torfaen Local Plan adopted in July 2000. This designation of the site for housing was made following the locality being placed on the Register of Historic Landscapes. There was, therefore, the opportunity for any interested party, including Cadw and CCW, to object to its designation. Nevertheless, the importance of the landscape is recognised by the Local Plan, where at Policy H7 it states:

"Development proposals which are of such a scale that they would adversely affect or visually impinge upon the overall integrity of the 'Landscape of Outstanding Historical Interest' at Blaenavon will not be permitted."

As part of the proposal process for World Heritage Site a Management Plan was produced (version 1.2, October 1999). This contains statements on a variety of issues concerning the conservation of the archaeological resource and historic environment. For example:

"The historic environment which encompasses ancient monuments, listed buildings, conservation areas and historic landscapes, parks and gardens, should be protected. Local authorities should maintain and strengthen their crucial role in securing its conservation". (section 2.5.3 Historic Environment)

Conservation and management priorities for HLCA 018 were also identified in the Historic Landscape Characterisation project and suggests that:

"The area is also important for the survival of the pre-industrial agricultural landscape; measures should be put into place to preserve and conserve the characteristic elements of the area such as traditional field boundaries, enclosure patterns and agricultural buildings". (Roberts and Jones 2005, 109)

It is noted that houses have recently been built on the edge of HLCA 003 overlooking the proposed development site.

Summary of development proposals
The current proposal being put forward by the developer, Brickyard Homes Ltd, is for a 117 house development on the New Road Farm land, together with the conversion to residential use of the existing barn and retention of the existing farmhouse.

Although by its nature, the proposed scheme will inevitably result in the loss of part of the agricultural landscape, the proposed housing development has been carefully designed and has numerous merits. Architecturally, the houses are designed to be in keeping with local and regional building styles, in order to complement the existing urban settlement. Within design constraints, the layout of the scheme reflects the development pattern of other areas of the urban core and expansion of Blaenavon. In addition, the visual impact of the development will be reduced by the careful positioning of houses, gardens and green spaces. These measures will soften the visual impact of the development, and will improve its integration into the urban expansion of Blaenavon.

Considerable attention has also been paid to ensure that the development reflects the former land use of the area. Where possible, individual landscape features such as historic field boundaries, existing buildings and trees will be retained or enhanced to become features of the development. As a result of these efforts, the only relict field boundary that is likely to be entirely lost is the one running between fields C, D and A (see figure 3).

Summary of historic landscape character
The landscape character description for HLCA 018 is included as Appendix 1 to this ASIDOHL. While the 'rare surviving medieval and post-medieval agricultural landscape' is recognised in the identification of the key historic landscape characteristics of HLCA 018, the main focus of the HLCA is its industrial landscape heritage (consisting of a major transport corridor, industrial processing and industrial housing).

The 'Varteg Road sub-area'
To ensure the significance of the landscape in which the proposed development area is situated was given sufficient recognition within the ASIDOHL, it has been distinguished from the rest of the HLCA 018 in which it was included. Consequently the 'Varteg Road Sub-area' has been defined as a specific landscape type. The extent of the sub-area in relation to HLCA 018 and the development area is illustrated in figure 2.

The 'Varteg Road sub-area' is different from the other areas of relict agricultural landscape in the area, partly because of its location in relation Blaenavon town, but also because it is still used as farmland. Elsewhere, the agricultural landscape has undergone a variety of land use changes.

Summary of archaeological and historical significance
The 'Varteg Road sub-area' is an area of relict pre-industrial agricultural land primarily defined by drystone walls and associated with dispersed farmsteads, which has survived as an illustration of the landscape before the development of the town and its industry. It is part of the wider irregular enclosed field system that runs along the valley bottom and slopes around Blaenavon. This type of field system is a feature of upland and marginal environments resulting from the expansion of agricultural land into marginal areas in response to population increase and socio-economic factors. The main points relating to the archaeological and historical significance of the 'Varteg Road sub-area' are:

- The sub-area is part of the core settlement area in the medieval period from which Blaenavon developed.

- The sub-area is a rare survival of an enclosed agricultural landscape with pre-industrial origins within the Registered Landscape Area and the World Heritage Site.

- Rare surviving documentation records land ownership details for the land as far back as 1497.

- Other examples of this landscape type in the area have already been lost to development, industrial activity, land reclamation or other land use change.

- Its location in the vicinity of the town enhances its value in representing the pre-industrial landscape history of the area and the development of Blaenavon.

Summary of assessment of impacts

The assessment of impact of the development is based upon professional and objective judgements as to the archaeological and landscape value of the various elements identified and objective judgement of the degree of severity of impact upon those elements from the development.

Direct physical impacts

The loss of area to the development is roughly 2% of the HLCA. The 5 ha development area lies entirely within the Varteg Road sub-area of approximately 28 ha (roughly 18% of this area). The approximate percentage of each feature that will be impacted upon by the development is weighed against the archaeological importance of the features and their landscape significance to calculate the effect of the development upon landscape value. Direct Physical Impacts of the development on the various elements that make up the historic landscape are considered to be Slight for HLCA 018 and Moderate for the Varteg Road Sub-area.

Indirect physical impacts

The proposed development would result in a change of land-use resulting in the reduction of the area of land under traditional agricultural management within HLCA 018 and the Varteg Road Sub-area. The proposed development would effectively remove the farmstead from its agricultural setting and sever the contextual relationship between these two elements of the historic landscape. There would be a reduction of group value in relation to the neighbouring farm. Indirect, physical impacts will be Moderate for HLCA 018 and Considerable for the Varteg Road Sub-area.

Indirect (non-physical), visual impacts

The design, shape and appearance of the buildings is intended to reflect and be in keeping with the existing housing within the various HLCAs that make up town of Blaenavon. The layout of the development is intended to reflect the topography and former land use of the area (the enclosed field system) and also to reflect the combination of planned and organic street layout that has evolved within the urban settlement areas of Blaenavon.

The Visual Impacts will be on average Moderate, but Considerable from some aspects and locations. Overall, the indirect impacts as a whole are rated as Slight for HLCA 018 and Moderate for the Varteg Road Sub-area.

Evaluation of relative importance
An evaluation of the relative importance of the two HLCAs (018 and 002) affected by the development produced a value of Considerable and High. This reflects the importance of the key landscape elements they contain to the whole Blaenavon Historic Landscape of which they are a part.

Assessment of overall significance of impact
The Registered landscape and World Heritage Site designations inevitably increase the significance of the impact of the development. The Overall Significance of Impact rating of 'Fairly Severe' for the Varteg Road sub-area is therefore a consequence of the importance of the landscapes involved, rather than the nature and character of the development. Most of the key characteristics that define HLCAs 018 and 002 will be largely unaffected, but again due to the importance of HLCA 018 as a whole, the overall significance of impact is rated as medium.

Considerations of development impact on the historic landscape
The concerns listed below are based on issues identified within the *Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process* (Cadw 2003).

- The effect of the development on the overall integrity and coherence of the Blaenavon Historic Landscape by the reduction and degradation of a significant historic landscape element (the 'Varteg Road Sub-area').

- The effect of the development on the overall integrity, coherence and group value of the 'Varteg Road Sub-area' by the reduction and degradation of its landscape elements.

- The effect of the development upon the form and extent of Blaenavon town in relation to its surroundings.

- The reduction and possible future loss of our capacity to understand and appreciate the landscapes historical depth meaning and significance through loss of visual contrast with the industrial, urban and unenclosed upland landscapes which help to define the industrial heritage of the area.

- The potential for future cumulative impact resulting in further reduction and degradation of landscape value over time.

Mitigating aspects of the development
The development proposal addresses many of the concerns listed above through aspects of its design. Architecturally, the houses are designed to be in keeping with local and regional building styles, in order to complement the existing urban settlement. The layout of the scheme reflects the development pattern of the urban core and expansion of Blaenavon. The visual impact of the development will be reduced by the careful positioning of houses, gardens and green spaces. These factors will reduce the impact of the development upon the overall integrity and coherence of the urban aspects of the Blaenavon Historic Landscape.

The development reflects the former land use of the area by retaining historic landscape features wherever possible, and allowing them to be 'read' within the layout and design of the scheme. Although some landscape features will be lost, others will remain as they are to deteriorate naturally. Others will be repaired, enhancing their landscape value within the scheme and prolonging their life as

historic landscape features. In addition to the archaeological research and fieldwork that has been undertaken to date in relation to the development there may be further opportunity to undertake archaeological recording of field boundaries and other features that will be impacted upon. There is also potential within the scheme to enable improved public access, information and awareness of the historic landscape significance of the location within the context of the Blaenavon World Heritage Site as a whole.

Conclusions

Although not the primary reason that Blaenavon has been recognised as a Landscape of Historic Interest in Wales and a World Heritage Site, the agricultural landscape that pre-dates the industrial and urban development of Blaenavon is nonetheless an important aspect of the areas landscape history.

HLCA 018 is a slightly problematic character area because it contains a wide variety of different landscape types, features and land-use. Within this context the development area might be considered to be small and relatively insignificant compared to the industrial historic landscape features. The 'Varteg Road sub-area' was defined in order to enable the landscape and historic value of this bit of the relict agricultural landscape to be recognised.

From an historic landscape point of view, development of the New Road Farm site will result in the loss to development of a significant portion (approximately 20%) of a rare landscape type within the environs of Blaenavon. The development will not result in the complete loss of this landscape, and a considerable proportion of this relict agricultural landscape will remain unaltered. It will also still be possible to perceive the former land use history of the site within the development.

The present coherence of the Varteg Road sub-area, and the visual impact it possesses through the contrast it provides between the urban settlement and the unenclosed uplands, will however, be reduced. Although the relict agricultural landscape can be seen or traced in the landscape elsewhere within the Blaenavon HLA, it does not survive in the same state, with such clarity of contrast, or in the same relation to the town as it does in the Varteg Road sub-area.

For these reasons, with reference to table 13 in *Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process* (Cadw 2003), it is considered that overall there is a 'low' reduction of value of the historic landscape area on the Register. This is tempered by the 'medium' rating for the impact of the development, and the 'high' rating for the value of the character areas.

The resulting 'moderate' rating for HLCA 018 and the 'fairly severe' rating for the 'Varteg Road sub-area' that have been arrived at through application of the ASIDOHL process is not a reflection on the nature or character of the proposed development so much as a reflection of the historic landscape value of the site as it exists at present. Ultimately, however, the interests of the historic landscape need to be weighed up against other factors.

This ASIDOHL has attempted to qualify and quantify the overall significance of impact of the proposed development upon the historic landscape as accurately and objectively as possible. Given that the principle of development on this site has already been accepted through its designation in the Torfaen Local Plan, then the proposed scheme offers a design solution which complements the existing urban settlement whilst retaining historic landscape features wherever possible.

REFERENCES

Cadw 2001, *Register of Landscapes of Special Historic Interest in Wales*. Cardiff

Cadw 2003*, Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process.* Cardiff

Murphy, K 2005, New Road Farm, Varteg Road, Blaenavon: archaeological evaluation. Cambria Archaeology unpublished report 2005/73

Schlee D 2005, New Road Farm, Blaenavon. Archaeological desk-based assessment. (Cambria report no. 2005/40)

APPENDIX 1

Landscape character description copied from GGAT Report no 2005/002 (Roberts R and Jones C 2005, Historic Landscape Characterisation:Blaenavon. Part 1 and 2: Landscape Characterisation and Management).

HLCA 018 Cwmavon Industrial Transport Corridor (Fig 19; Plates 45-46)

Historic Background

The historic landscape area of Cwmavon Industrial Transport Corridor encompasses the extent of the enclosed landscape between Mynydd y Garn-fawr and Mynydd Varteg Fawr from Blaenavon to Cwmavon.

In the late medieval period the area closest to Blaenavon town formed part of the core settlement for which rental increment was charged this is thought to be a survival of the early medieval *gwestfa* rent. Elsewhere in the area the land belonged to other freeholds. Agricultural settlement in the area comprised a number of scattered farmholdings (as it does today) on manorial lands. Capel Newydd, erected in the late medieval period (SAM: MM212) was demolished in 1863. Many of the areas farmsteads are now ruinous and are in areas given over in the twentieth century to forest plantation; an example is Dan y Capel farm, of known seventeenth century date.

Farmsteads of eighteenth century date are Coed Afon Farm and New Road Farm; all have been extensively altered. The former has been converted into four separate dwellings, while the latter was originally a one and a half storey the farmhouse, although altered retains an interesting eighteenth century barn, probably originally thatched.

During the early nineteenth century (*c*1804) a forge was built at Cwmavon with puddling furnaces, which was initially linked with Blaenavon ironworks. In the 1820s the forge was linked to the Varteg ironworks to the west. Associated with the forge is the exceptional terrace of workers' housing (numbers 1-12 Forge Row, Listed: Grade II*) built between 1804-06 but rebuilt in the 1820s when the forge became associated with the Varteg ironworks, also at this time Cwmavon House (Listed: Grade II) was built for the ironmaster. Quarries were located in the area near to the forge and other terraced housing associated with these and the railways were constructed. The Historic Buildings Trust carried out repair works to Forge Row in the late 1980s.

The area features important transport links: a tramroad, engineered by Thomas Dadford in 1796, ran close to the Afon Llwyd from Blaenavon ironworks terminating at Pontnewynydd; this providing access to the Monmouthshire Canal. This route was superseded after the construction of the Eastern Valley Section of the Monmouthshire Railway (MR), in 1854. The latter came to be known as the 'low-level railway' to distinguish it from the LNWR Blaenavon-Brynmawr Branch line, opened in 1868 further uphill on the west side of the valley. In 1877 the LNWR Abersychan extension to the Blaenavon-Brynmawr line was completed; this line survived until its closure in *c*1953, while the MR line finally closed in 1962.

Some early to mid-nineteenth century tramroad inclines served small quarries in the area and provided links to the Blaenavon ironworks tramroad, for example those at Gallows Green and Graig quarries; some remains associated with these survive. A substantial tramroad incline built in 1861 linked the Varteg Hill Colliery with the MR Eastern Valley Section line at Cwmavon station; the incline was later replaced (*c*1878) by a line of the LNWR, linking the

colliery with the LNWR Blaenavon-Brynmawr Branch.

A turnpike road was constructed in 1847 from Pontypool to Blaenavon, over Varteg Hill; this is the current Varteg Road or B4246. The other main road route from the south is the Cwmavon Road (A4043); this route, well established by the end of the nineteenth century, appears to follow the route of the early tramroad between Blaenavon and Pontnewynydd, which connected with the Monmouthshire canal.

In 1900 Westlake's Brewery (Listed: Grade II) was built by leading brewery architects George Adlam and Sons for Charles Westlake; this superseded that opened in Blaenavon in the 1880's. By 1907 the brewery had a chain of pubs and its beer was medal winning, however, in the 1920s business declined and brewing ceased in 1928. In 1936 the buildings were taken over by The Eastern Valley Subsistence Production Society with the objective of helping the problem of mass unemployment in this area. The former brewery has now been converted into a plastics factory.

Key Historic Landscape Characteristics

Major transport corridor, also characterized as a rare surviving medieval and post-medieval agricultural landscape with areas of woodland, scattered post-medieval farmsteads, and industrial processing at Cwmavon forge with associated industrial housing.

Cwmavon Industrial Transport Corridor is chiefly characterised by transport and communication features, including tramroad networks, industrial and public railways, roads, tracks and lanes. There are also a number of bridges in the area.

The area is also strongly characterized by the surviving evolved/irregular field pattern with traditional boundaries of dry-stone walls, hedges augmented by post and wire fences. Other features related to agriculture typically include agricultural buildings, sheepfolds, quarries and limekilns. A dominant visual characteristic is represented by the presence of woodland/forestation, comprising a mixture of replanted ancient woodland, other broadleaf woodland and twentieth century plantation.

Scattered farmsteads were formerly the dominant settlement pattern in the area, however, while some later nineteenth century farmhouses survive, most of the earlier examples are now in a ruinous condition. Dan y Capel was a one and a half storey, rubble stone, two-window cottage. The area's industrial housing mostly comprised two-storey cottages, rendered with slate roofs, usually single-fronted and paired.

Cwmavon House and the adjacent cottages at Forge Row represent an important historic group; Forge Row comprises of twelve single-fronted houses of rubble stone in reflected pairs with segmental-headed openings, boarded doors and twelve pane casement windows, now converted to six houses. The roof is mainly of stone tile, with some slate replacement, and stone stacks. Cwmavon House is a U-plan two-storey, four-bay house of late Georgian style with scribed render front, hipped slate roof, roughcast stacks and horned sixteen-pane and four-pane sash windows.

The Westlake's Brewery building is a striking feature in the landscape, it was acclaimed by the Brewers Journal saying that 'the construction of the building is of the most substantial character in every way' and 'the plant will be of the most modern description, both scientifically and practically.' It is a tall, five-storey, tower brewery flanked by lower offices and ancillary ranges, constructed in local stone with red brick dressings including quoins, band courses and jambs; slate roof with offset hipped clerestory. The third and fourth floors have segmental headed windows with keystones and the top floor has a band of eight square-headed windows. The gable ends have similar segmental headed windows; to the north end there is a Diocletian type window created by a central semicircular arch and the south end is rendered. Most of the glazing is of small-pane metal-frame type. Stepped down at north end is the hipped-roof two-storey office block; this is distinguished from the main brewery by the use of freestone rather than brick dressings. Old views of the brewery and evidence in the masonry show that the present gabled roof to the porch replaces the original Jacobethan detail with swept-up parapet and pedimented doorcase. These views also show that the former chimney to south end and a further smaller and moulded chimney on the north gable have been lost.

Otherwise the site of the early nineteenth century Cwmavon Forge, across the road from Forge Row, is the most obvious indication of industrial processing activity in the area, though a number of minor limekilns and quarries also remain.

Conservation priorities and management

This area, which comprises the valley bottom and lower sides of the Avon Llwyd valley, straddles the boundary of the Historic Landscape and includes the Cwm Avon conservation area, while the Council's Countryside Section manages part of the area. There are a number of individual sites protected by legislation these include the following listed buildings; Forge Row, Cwmavon House and the former brewery and a single Scheduled ancient Monument, Capel Newydd. The current dilapidated condition of Cwmavon House and grounds indicates urgent need for conservation works.

Maintain extant transport networks and consider extending the Pontypool and Blaenavon Railway, along the course of the existing dismantled railway, through the area to Talywain and possibly beyond. The area is also important for the survival of the pre-industrial agricultural landscape; measures should be put it place to preserve and conserve the characteristic elements of the area such as traditional field boundaries, enclosure patterns and agricultural buildings. Ancient woodland forms a significant proportion of the area; replanting should be with appropriate native species.

The area would benefit from a general building survey to include a documentary study with the aim of informing future conservation programmes and management strategies. A sensitive approach to future changes to existing building stock should be encourage through guidance on appropriate styles for extensions/conversion and renovation, encouraging use of authentic/traditional finishes and replacement/re-instatement of traditional windows (sash/casement).

The possibility of investigation the site of the Cwmavon Forge, with the ultimate aim of presentation and interpretation might be explored subject to agreement.

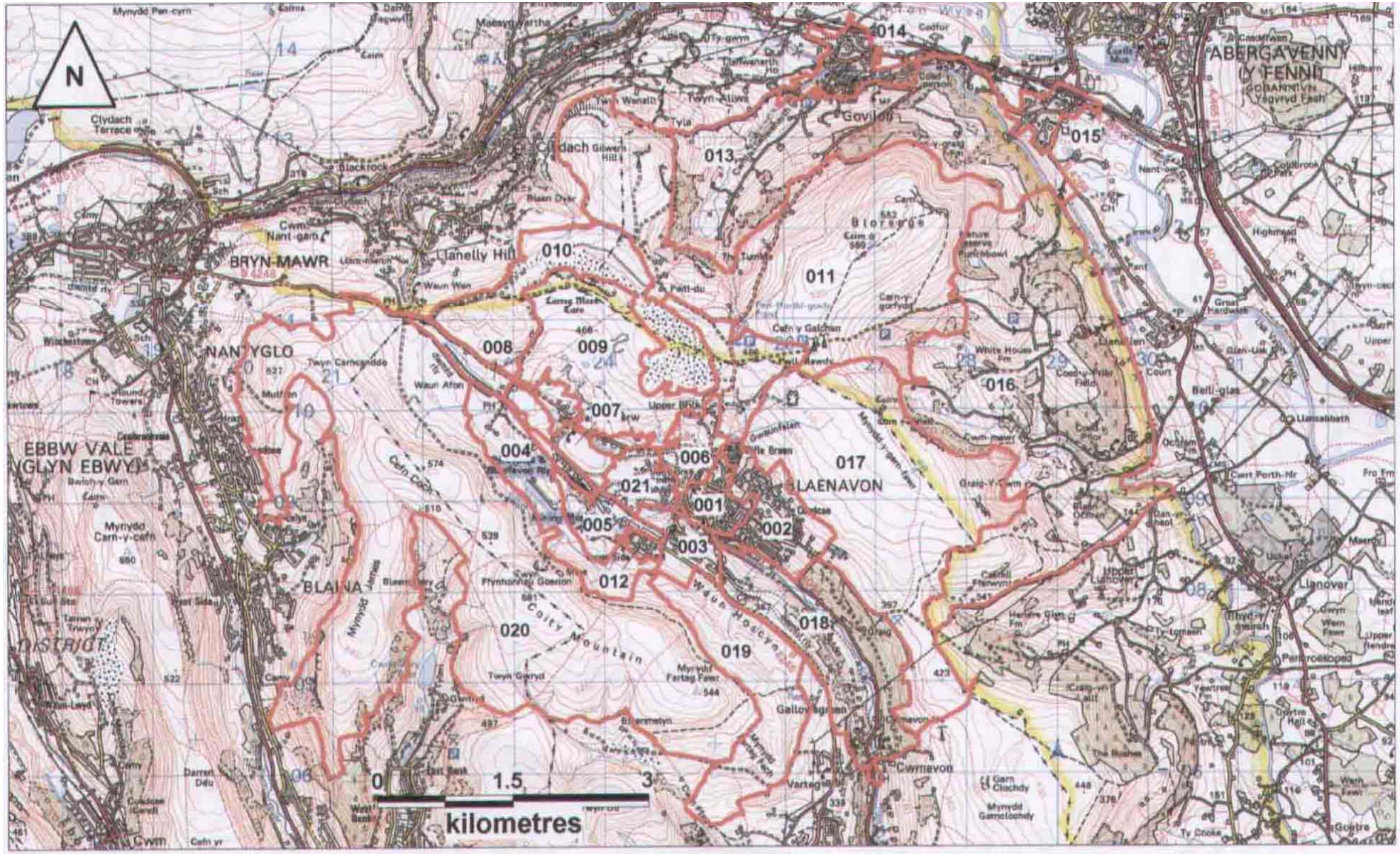

Figure 1: Blaenavon Historic Landscape: The Character areas (reproduced from GGAT Project no. 61)

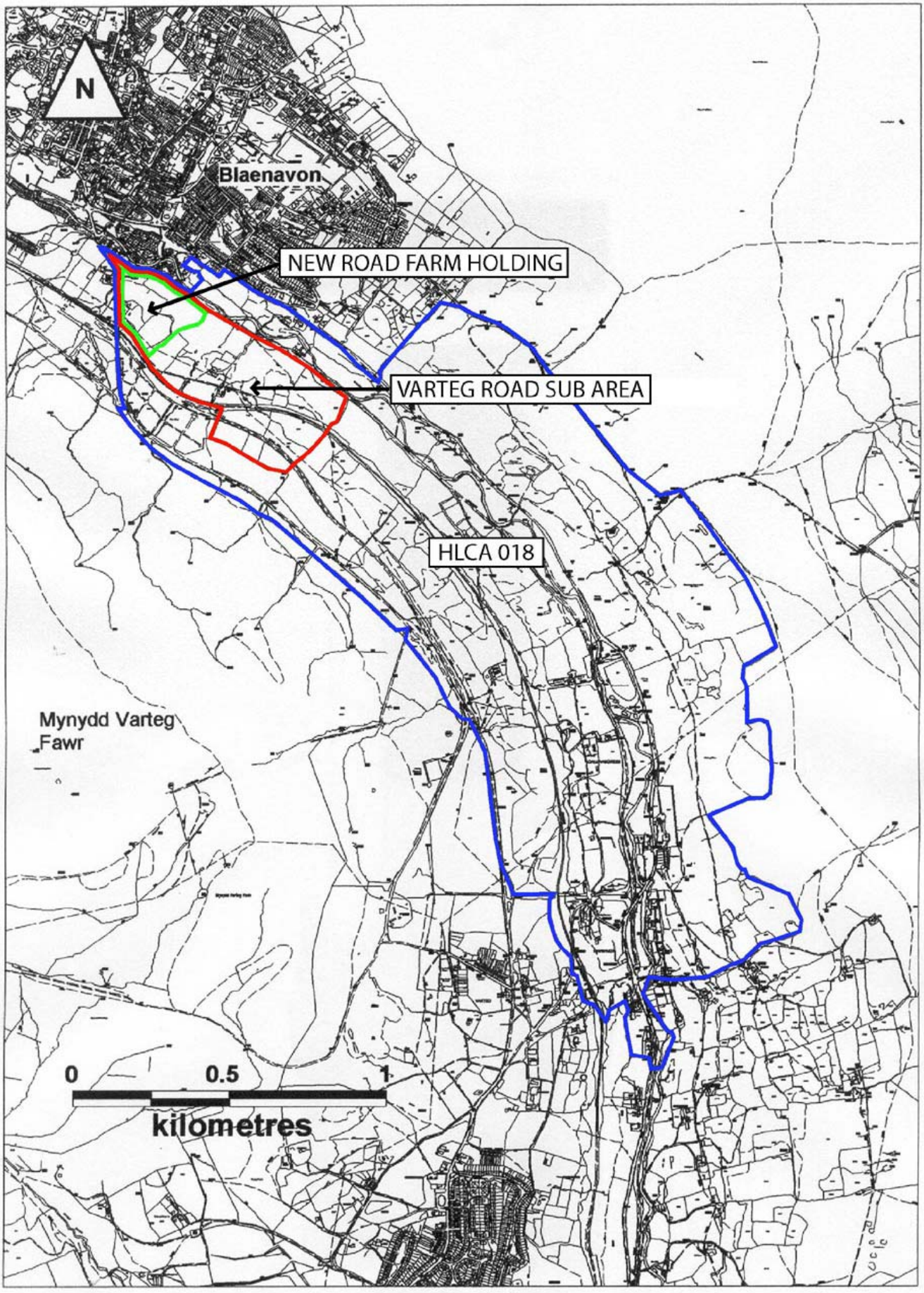

Figure 2: HLCA 018 (reproduced from GGAT Project no. 61)

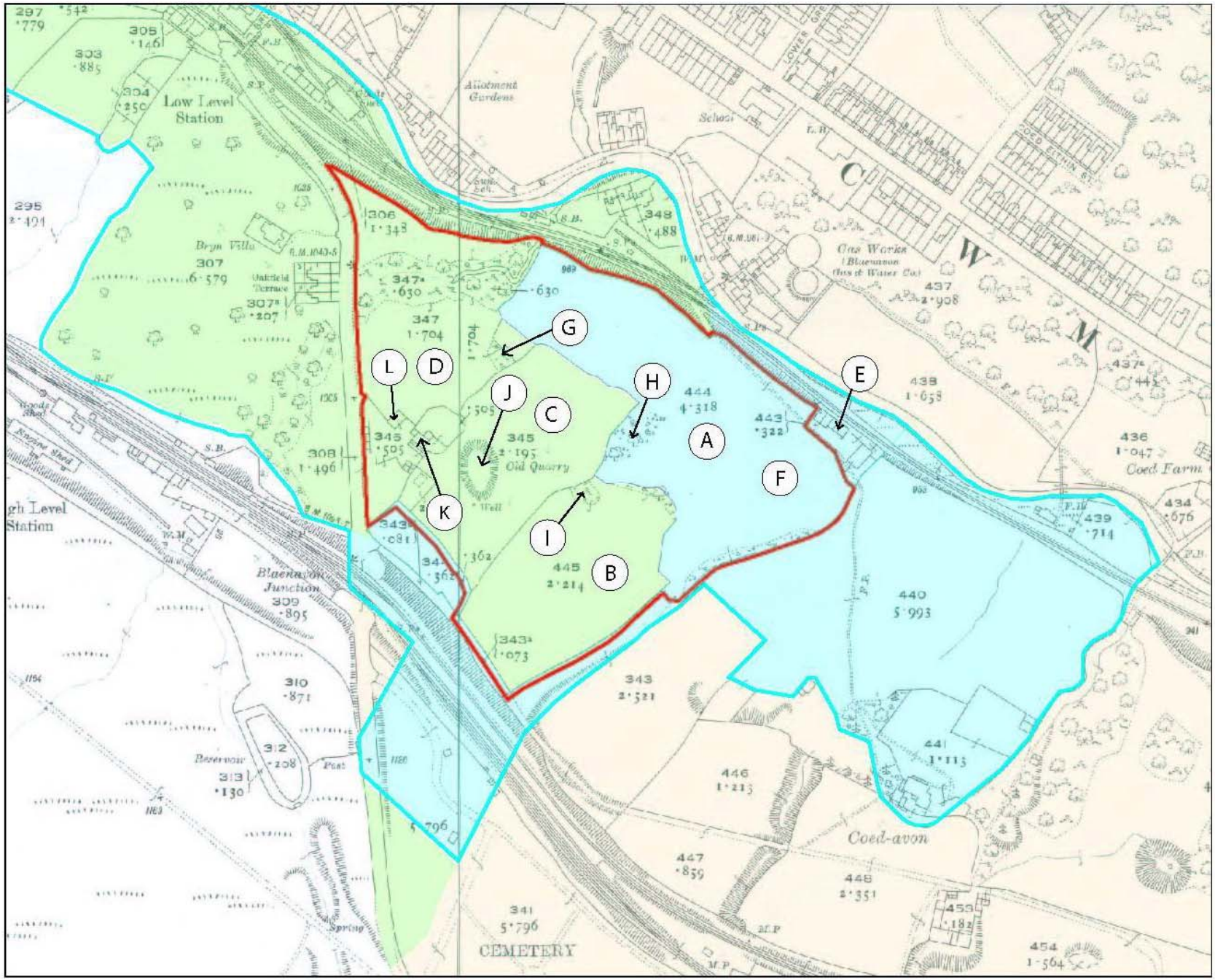

Figure 3: Map showing location of proposed development area

Photo 1: Aerial view of Blaenavon showing the Varteg Road sub-area etc.

New Road Farm, Varteg Road, Blaenavon, Monmouthshire
ASIDOHL

RHIF YR ADRODDIAD / REPORT NUMBER 2005/64

Mai 2005
May 2005

Paratowyd yr adroddiad hwn gan / This report has been prepared by D Schlee

Swydd / Position: Archaeologist

Llofnod / Signature ..... Dyddiad / Date

Mae'r adroddiad hwn wedi ei gael yn gywir a derbyn sêl bendith
This report has been checked and approved by K Murphy

ar ran Archaeoleg Cambria, Ymddiriedolaeth Archaeolegol Dyfed Cyf.
on behalf of Cambria Archaeology, Dyfed Archaeological Trust Ltd.

Swydd / Position: Principal Archaeologist - Field Services

Llofnod / Signature ..... Dyddiad / Date

Yn unol â'n nôd i roddi gwasanaeth o ansawdd uchel, croesawn unrhyw sylwadau sydd gennych ar gynnwys neu strwythur yr adroddiad hwn

As part of our desire to provide a quality service we would welcome any comments you may have on the content or presentation of this report

APPENDIX N

Historical Plans

Envirocheck®
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Envirocheck® Report:

Historical Map List

Report on:

New Road Farm
Varteg Road
Blaenavon
Pontypool
TorfaenNP4 9DY

National Grid Reference :

325430, 208340

Prepared For :

Excal Limited
7170
Excal House
Capel Hendre Industrial Estate
Ammanford
CarmarhtenshireSA18 3SJ

Your Reference

Mr J Bailes,ES1487

Ordnance Survey County Series Published 1880 to 1882

County	Mapsheet	Scale	Year
Monmouthshire	012_13	1:2,500	1880
Monmouthshire	012_14	1:2,500	1882

Ordnance Survey County Series Published 1901

County	Mapsheet	Scale	Year
Monmouthshire	012_13	1:2,500	1901
Monmouthshire	012_14	1:2,500	1901

Ordnance Survey County Series Published 1920

County	Mapsheet	Scale	Year
Monmouthshire	012_13	1:2,500	1920
Monmouthshire	012_14	1:2,500	1920

Ordnance Survey Plan Published 1962

National Grid Series	Mapsheet	Scale	Year
Ordnance Survey Plan	SO2507	1:2,500	1962
Ordnance Survey Plan	SO2508	1:2,500	1962

Ordnance Survey Plan Published 1962

National Grid Series	Mapsheet	Scale	Year
Ordnance Survey Plan	SO2508NE	1:1,250	1962
Ordnance Survey Plan	SO2508NW	1:1,250	1962
Ordnance Survey Plan	SO2508SE	1:1,250	1962
Ordnance Survey Plan	SO2508SW	1:1,250	1962

Ordnance Survey Plan Published 1971

National Grid Series	Mapsheet	Scale	Year
Ordnance Survey Plan	SO2508NW	1:1,250	1971

Ordnance Survey County Series Published 1886

County	Mapsheet	Scale	Year
Monmouthshire	012_00	1:10,560	1886
Monmouthshire	018_00	1:10,560	1886

Ordnance Survey County Series Published 1902

County	Mapsheet	Scale	Year
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Ordnance Survey County Series Published 1922

County	Mapsheet	Scale	Year
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Monmouthshire	018_NW	1:10,560	1922

Ordnance Survey County Series Published 1938 to 1953

County	Mapsheet	Scale	Year
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Ordnance Survey Plan Published 1964

National Grid Series	Mapsheet	Scale	Year
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Ordnance Survey Plan	SO20NW	1:10,560	1964

Ordnance Survey Plan Published 1977

National Grid Series	Mapsheet	Scale	Year
Ordnance Survey Plan	SO20NE	1:10,000	1977

Ordnance Survey Plan Published 1977 to 1983

National Grid Series	Mapsheet	Scale	Year
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Ordnance Survey Plan	SO20NW	1:10,000	1983

Ordnance Survey Plan Published 1999

	Mapsheet	Scale	Year
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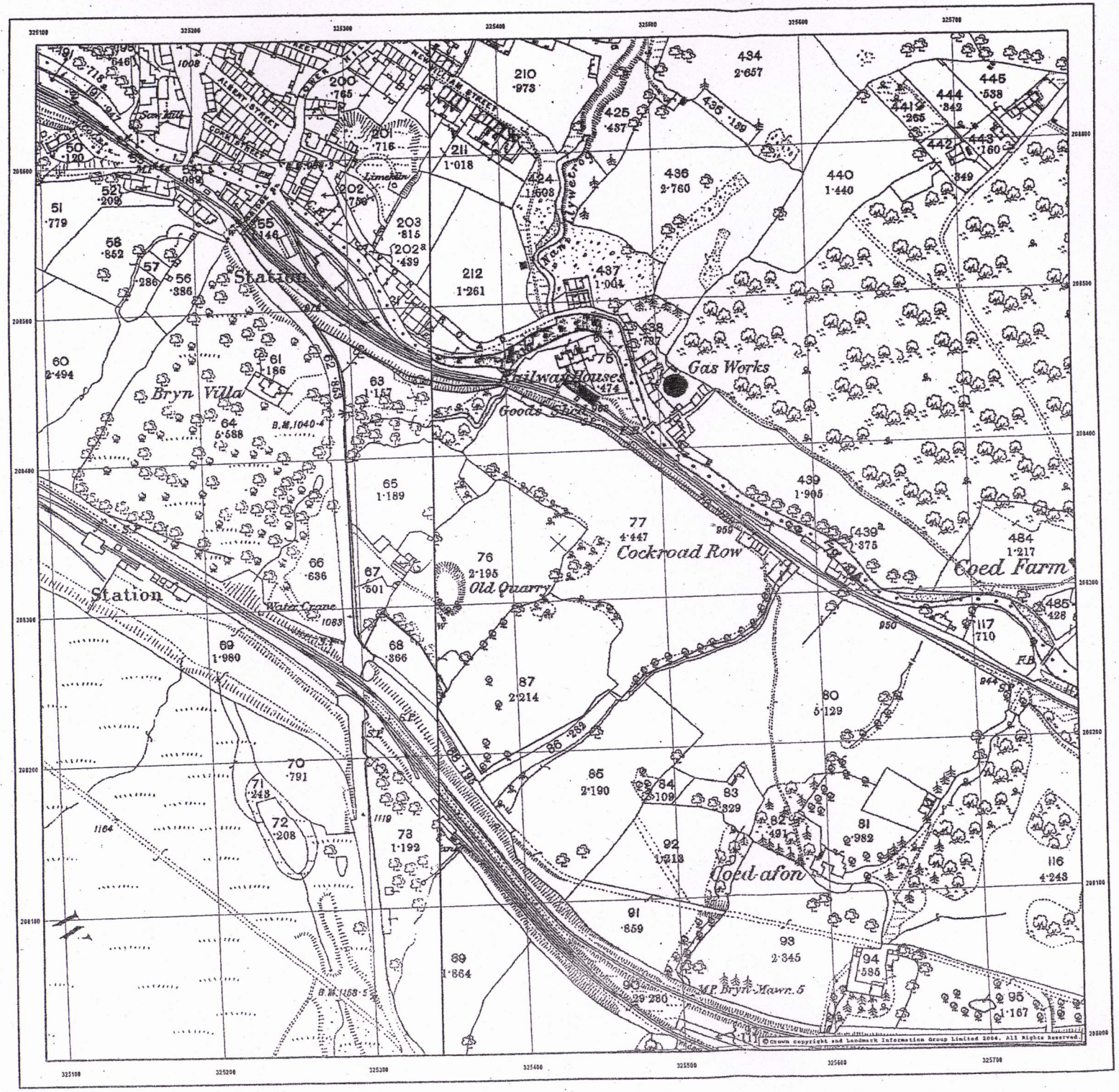

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Customer Ref: Mr J Bailes,ES1487
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Ammanford
Carmarthenshire SA18 3SJ

SITE DETAILS Grid Reference 325430 208340

New Road Farm
Varteg Road
Blaenavon
Pontypool
Torfaen NP4 8DY

Historical Map Legend

Quarry
Sand Pit
Marsh
Reeds
Gravel Pit
Clay Pit
Rough Pasture
Furze
Refuse Heap
Shingle
Osiers
Ford
Railway crossing River or Canal
Railway crossing Road
Level Crossing
Embankment
Cutting
Road crossing Railway
Road over single Stream
Road over River or Canal
Arrow denotes flow of Water

MONMOUTHSHIRE

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given on the right is often some years later than the surveyed date. Before 1936, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Source map scale - 1:2,500

1880 1882

Date(s) of Publication

1 of 14

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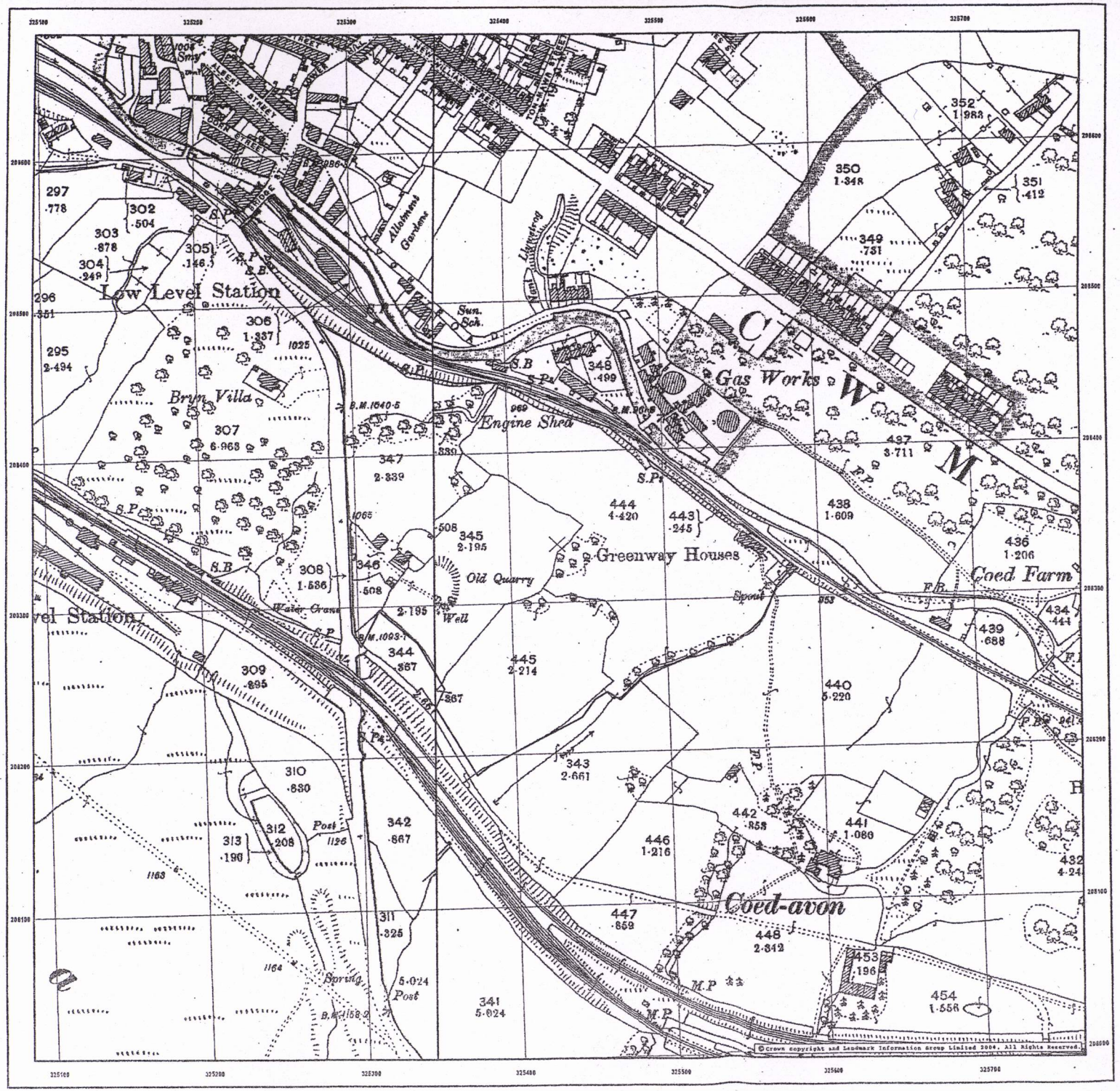

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- Reeds
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- Clay Pit
- Rough Pasture
- Furze
- Refuse Heap
- Shingle
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- Ford
- Railway crossing River or Canal
- Railway crossing Road
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- Arrow denotes flow of Water

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Source map scale - 1:2,500

1901 1901

Date(s) of Publication

2 of 14

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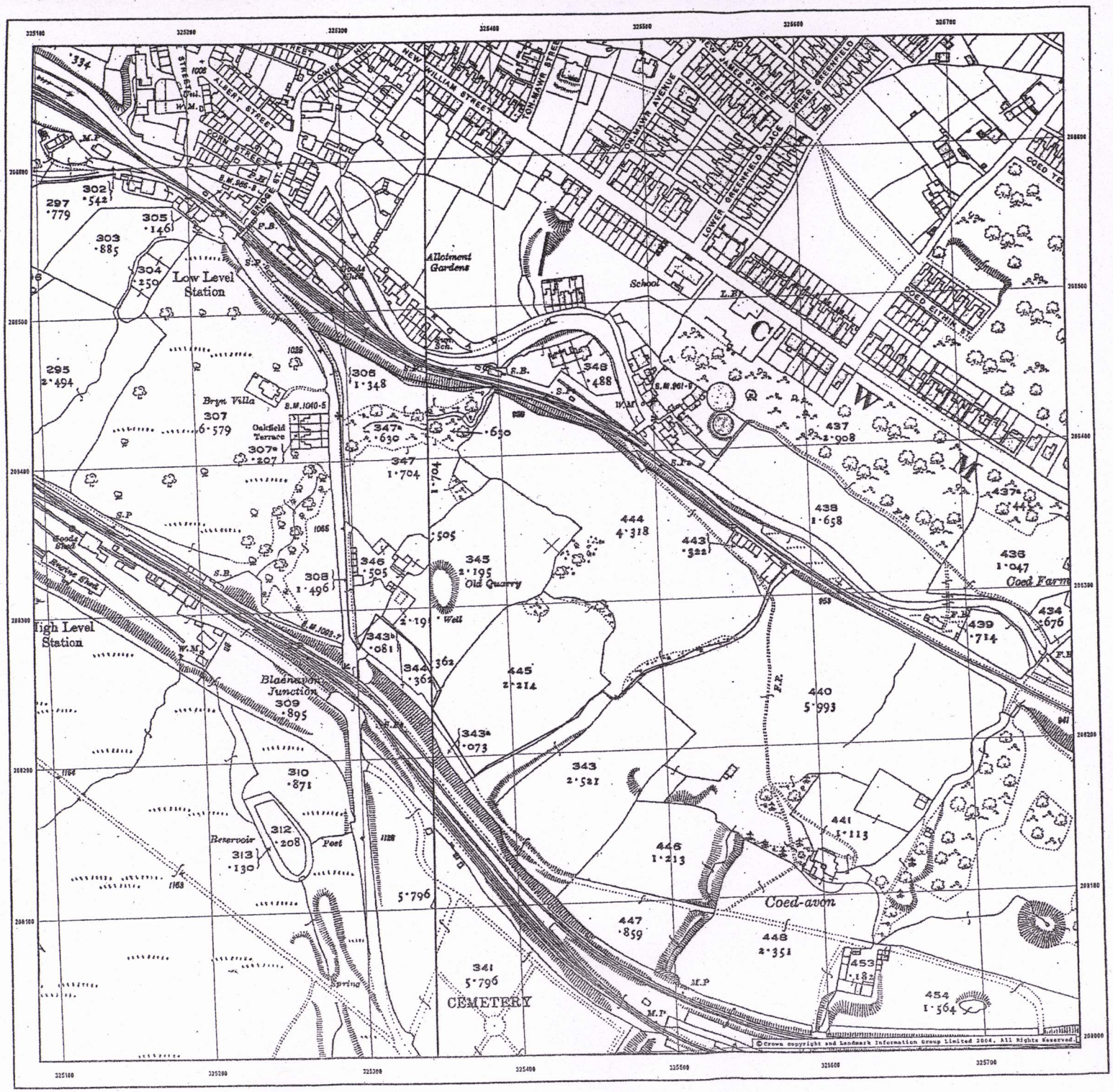

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MONMOUTHSHIRE

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Source map scale - 1:2,500

1920 1920

Date(s) of Publication

3 of 14

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Customer Ref: Mr J Belles,ES1487
Excel Limited
Excel House Capel Hendre Industrial Estate
Ammanford
Carmarthenshire SA18 3SJ

SITE DETAILS Grid Reference 325430 208340

New Road Farm
Varteg Road
Blaenavon
Pontypool
Torfaen NP4 9DY

Historical Map Legend

Quarry
Shingle
Railway over Road
Road over Railway
Gravel Pit
Sand Pit
Level Crossing
Railway over River
Other Pits
Road over Stream
Road over Stream
Rough Pasture
Furze
Road over River or Canal
Sunken Road
Marsh
Reeds
Raised Road
Osiers
Instrumental Contour
Arrow denotes flow of Water
Sketched Contour

MONMOUTHSHIRE

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given on the right therefore is often some years later than the surveyed date. Before 1936, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1972, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Source map scale - 1:10,560

1938
1953

Date(s) of Publication

10 of 14

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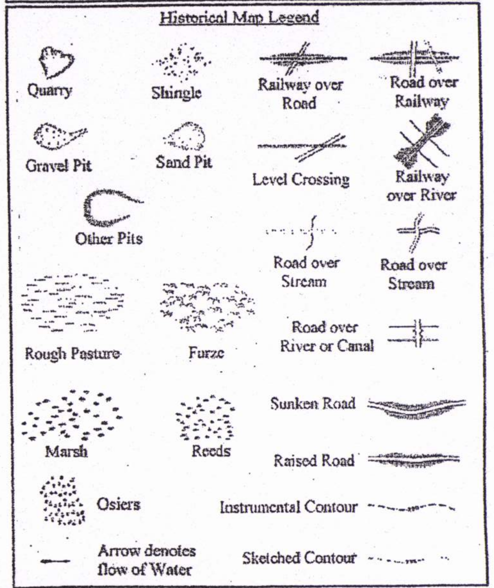
Envirocheck®
A Landmark® product

CLIENT DETAILS Envirocheck Order No. EC5378211_1_1

Customer Ref: Mr J Bailes,ES1487
Excel Limited
Excel House Capel Hendre Industrial Estate
Ammanford
Carmarhtenshire SA18 3SJ

SITE DETAILS Grid Reference 325430 208340

New Road Farm
Varteg Road
Blaenavon
Pontypool
Torfaen NP4 9DY



MONMOUTHSHIRE

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given on the right therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

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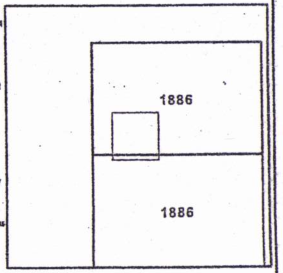
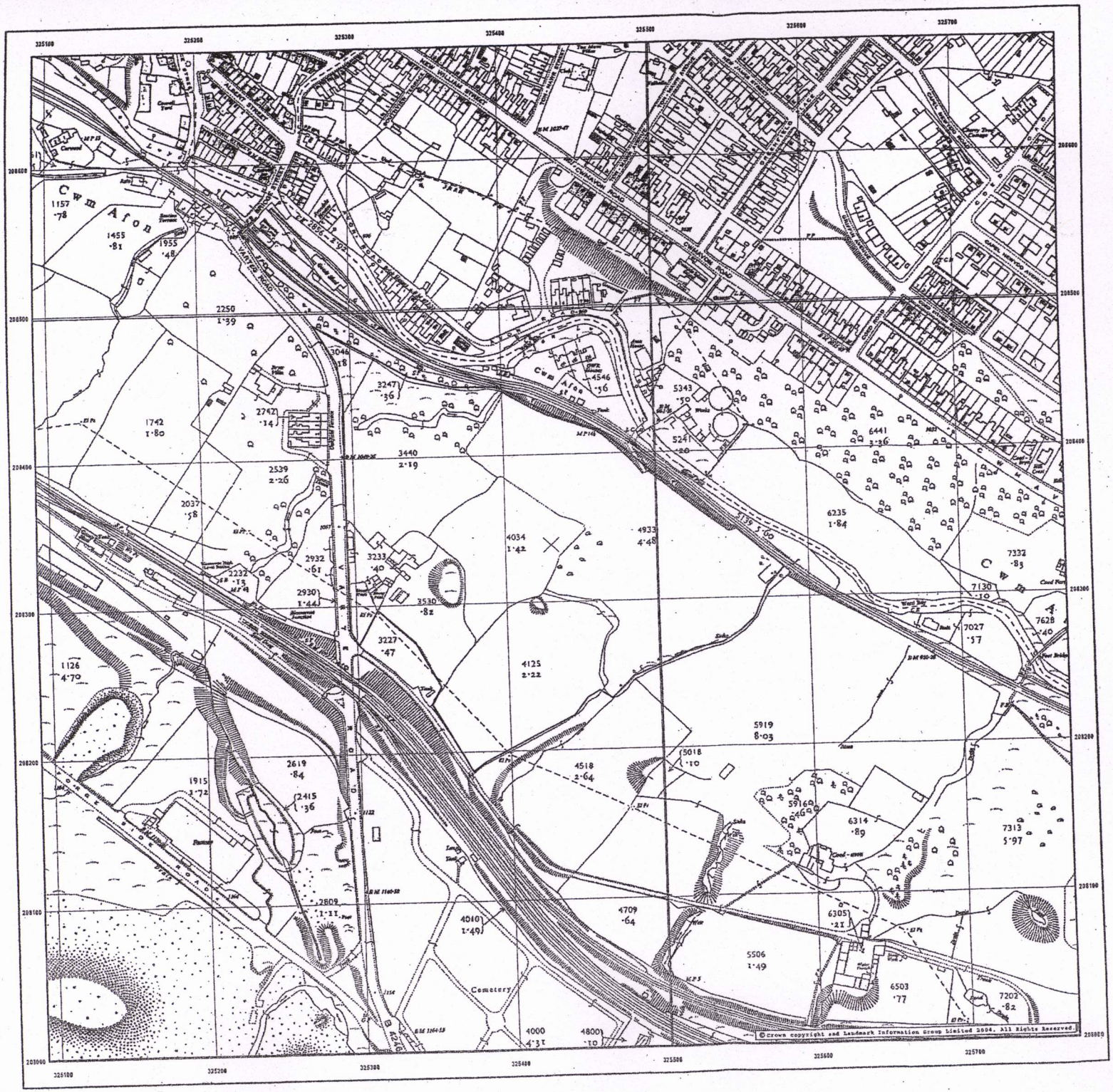
Source map scale - 1:10,560



Date(s) of Publication



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CLIENT DETAILS Envirocheck Order No. EC5378211_1_1

Customer Ref: Mr J Belles, ES1487
Excal Limited
Excal House Capel Hendre Industrial Estate
Ammanford
Carmarthenshire SA18 3SJ

SITE DETAILS Grid Reference 325430 208340

New Road Farm
Varteg Road
Blaenavon
Pontypool
Torfaen NP4 8DY

Historical Map Legend

- Inactive Quarry, Chalk Pit or Clay Pit
- Active Quarry, Chalk Pit or Clay Pit
- Culvert
- Slope
- Slope
- Pylon
- Electricity Transmission Line
- Direction of Water flow
- Coppice, Osier
- Marsh
- Saltings
- Orchard Tree
- Reeds
- Rough Grassland
- Scrub
- Heath
- Bracken
- Coniferous Tree (Surveyed)
- Coniferous Tree (Not Surveyed)
- Non-coniferous Tree (Surveyed)
- Non-coniferous Tree (Not Surveyed)

ORDNANCE SURVEY PLAN

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1856 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given on the right is often some years later than the surveyed date. Before 1858, all OS maps were based on the Classini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Source map scale - 1:2,500

1962
1962

Date(s) of Publication

4 of 14

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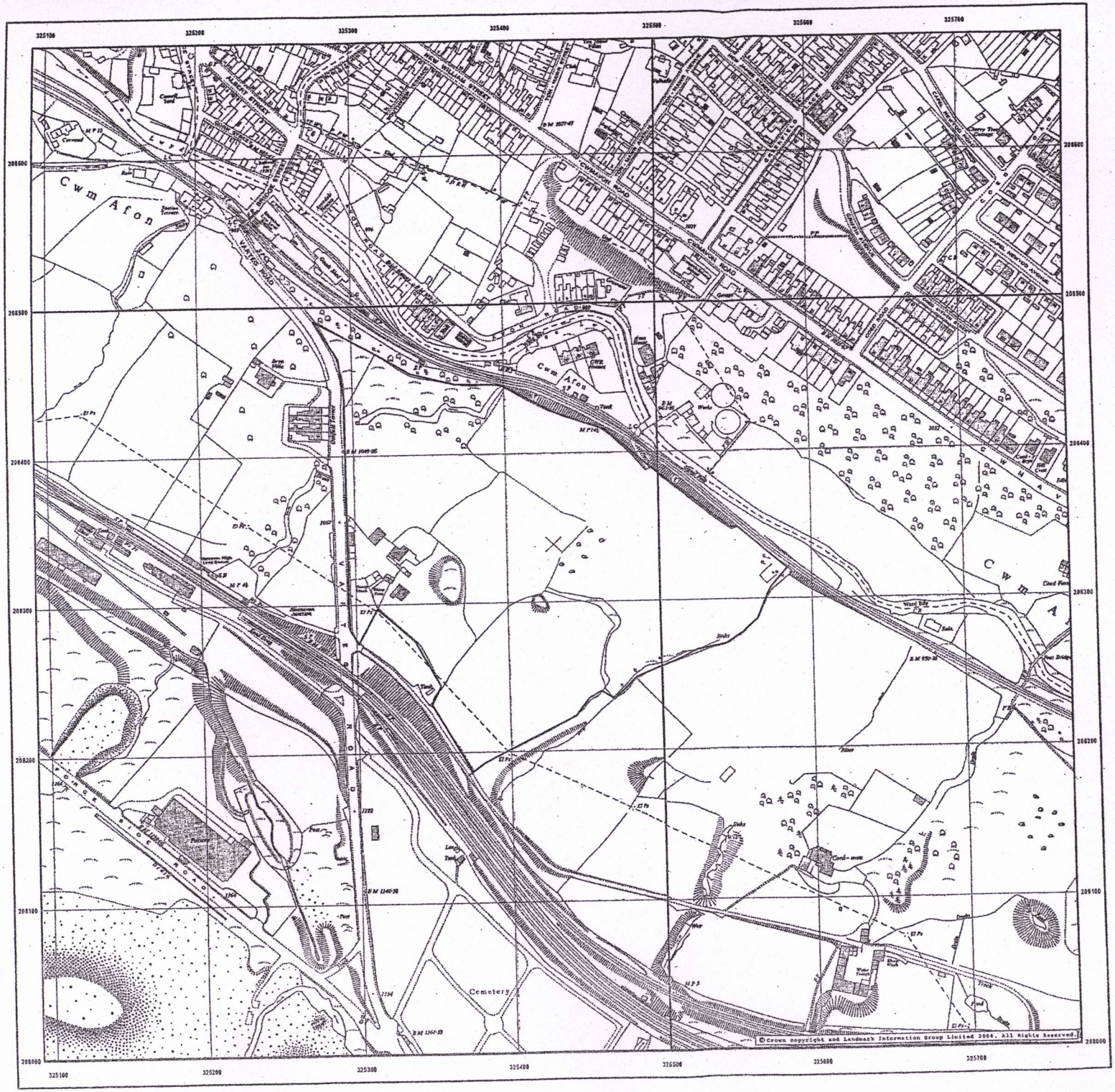

Envirocheck®

A Landmark® product

CLIENT DETAILS Envirocheck Order No. EC5378211_1_1

Customer Ref: Mr J Bailes,ES1487
Excel Limited
Excel House Capel Hendre Industrial Estate
Ammanford
Carmarthenshire SA18 3SJ

SITE DETAILS Grid Reference 325430 208340

New Road Farm
Varteg Road
Blaenavon
Pontypool
Torfaen NP4 9DY

Historical Map Legend

- Inactive Quarry, Chalk Pit or Clay Pit
- Active Quarry, Chalk Pit or Clay Pit
- Culvert
- Slope
- Slope
- Pylon
- Electricity Transmission Line
- Direction of Water flow
- Coppice, Osier
- Marsh
- Saltings
- Orchard Tree
- Reeds
- Rough Grassland
- Scrub
- Heath
- Bracken
- Coniferous Tree (Surveyed)
- Coniferous Tree (Not Surveyed)
- Non-coniferous Tree (Surveyed)
- Non-coniferous Tree (Not Surveyed)

ORDNANCE SURVEY PLAN

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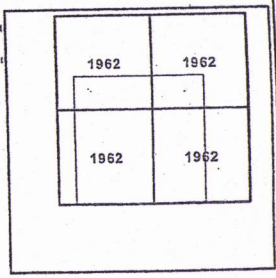
Source map scale - 1:1,250



Date(s) of Publication

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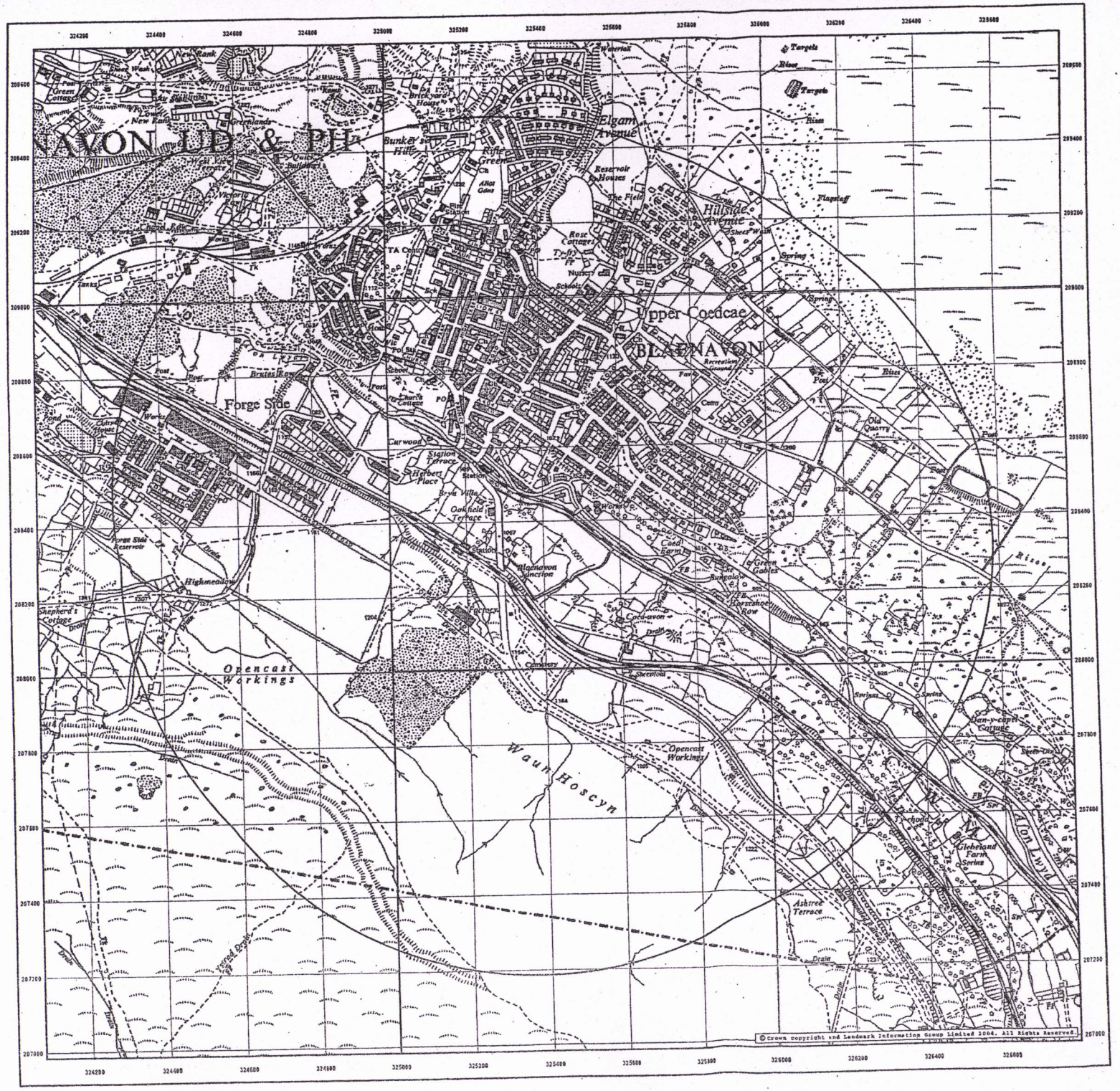

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Customer Ref: Mr J Bailes,ES1487
Excel Limited
Excel House Capel Hendre Industrial Estate
Ammanford
Carmarthenshire SA18 3SJ

SITE DETAILS Grid Reference 325430 208340

New Road Farm
Varteg Road
Blaenavon
Pontypool
Torfaen NP4 9DY

Historical Map Legend

- Chalk Pit, Clay Pit, or Quarry
- Non-coniferous Trees
- Bracken
- Gravel Pit
- Coniferous Trees
- Heath
- Sand Pit
- Scrub
- Rough Grassland
- Lake, Loch or Pond
- Disused Pit or Quarry
- Pylon
- Electricity Transmission Line
- Reeds
- Refuse or Slag Heap
- Pole
- Saltings
- Marsh
- Direction of Flow of Water
- Shingle
- Sand
- Cutting
- Embankment
- Standard Guage Multiple Track
- Standard Guage SingleTrack
- Road Under
- Road Over
- Level Crossing
- Foot Bridge
- Siding, Tramway or Mineral Line
- Narrow Guage

ORDNANCE SURVEY PLAN

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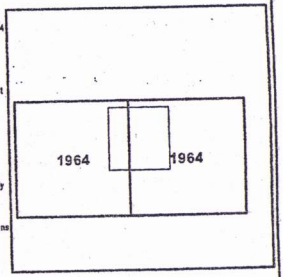
Source map scale - 1:10,560



Date(s) of Publication

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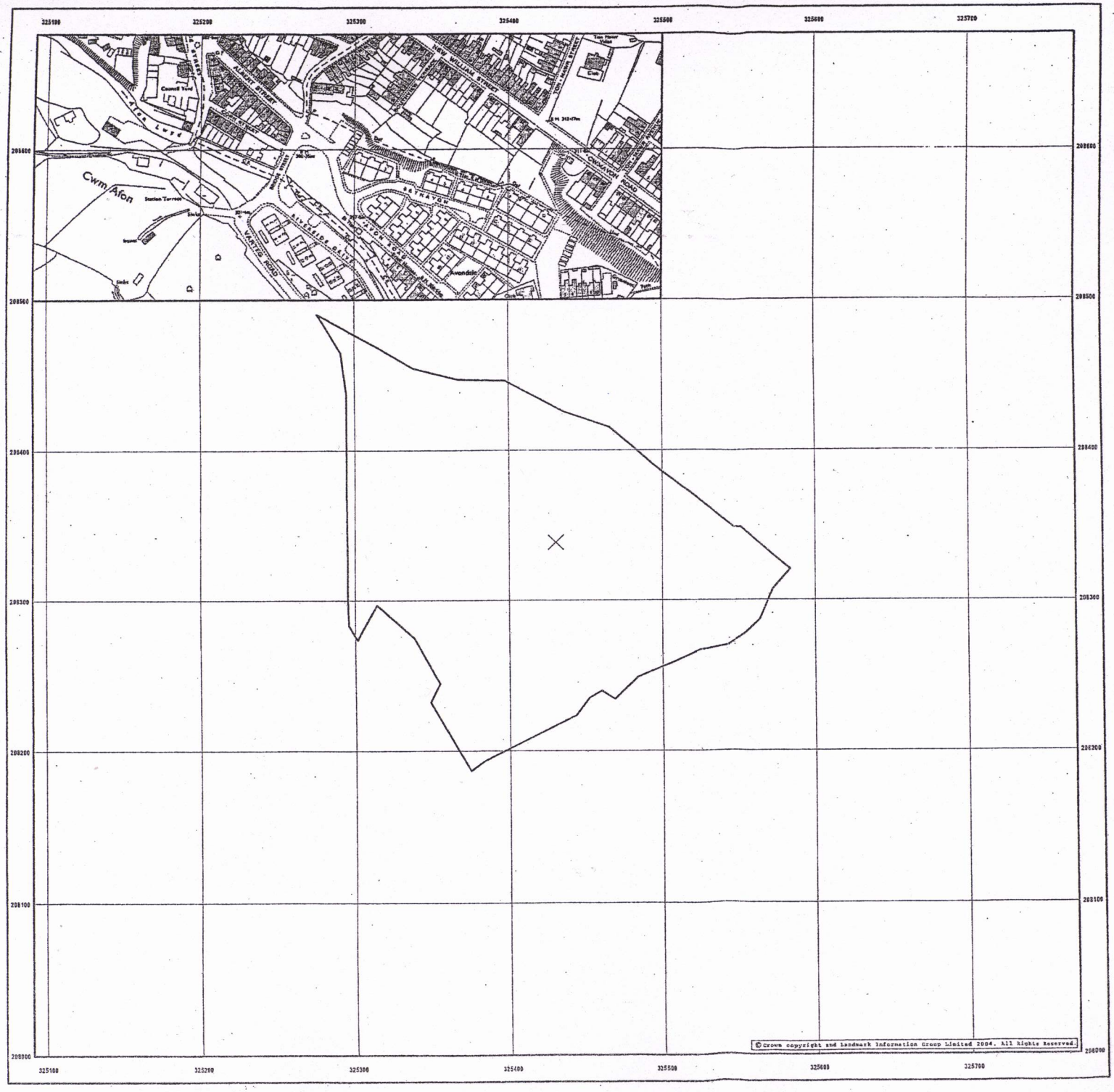

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CLIENT DETAILS Envirocheck Order No. EC5378211_1_1

Customer Ref: Mr J Bailes,ES1487
Excal Limited
Excal House Capel Hendre Industrial Estate
Ammanford
Carmarthenshire SA18 3SJ

SITE DETAILS Grid Reference 325430 208340

New Road Farm
Varteg Road
Blaenavon
Pontypool
Torfaen NP4 9DY

Historical Map Legend

- Inactive Quarry, Chalk Pit or Clay Pit
- Active Quarry, Chalk Pit or Clay Pit
- Culvert
- Slope
- Slope
- Pylon
- Electricity Transmission Line
- Direction of Water flow
- Coppice, Osier
- Marsh
- Saltings
- Orchard Tree
- Reeds
- Rough Grassland
- Scrub
- Heath
- Bracken
- Coniferous Tree (Surveyed)
- Coniferous Tree (Not Surveyed)
- Non-coniferous Tree (Surveyed
- Non-coniferous Tree (Not Surveyed)

ORDNANCE SURVEY PLAN

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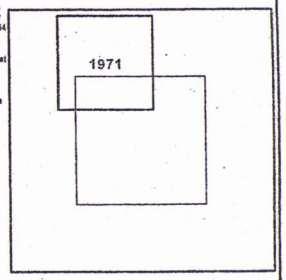
Source map scale - 1:1,250



Date(s) of Publication

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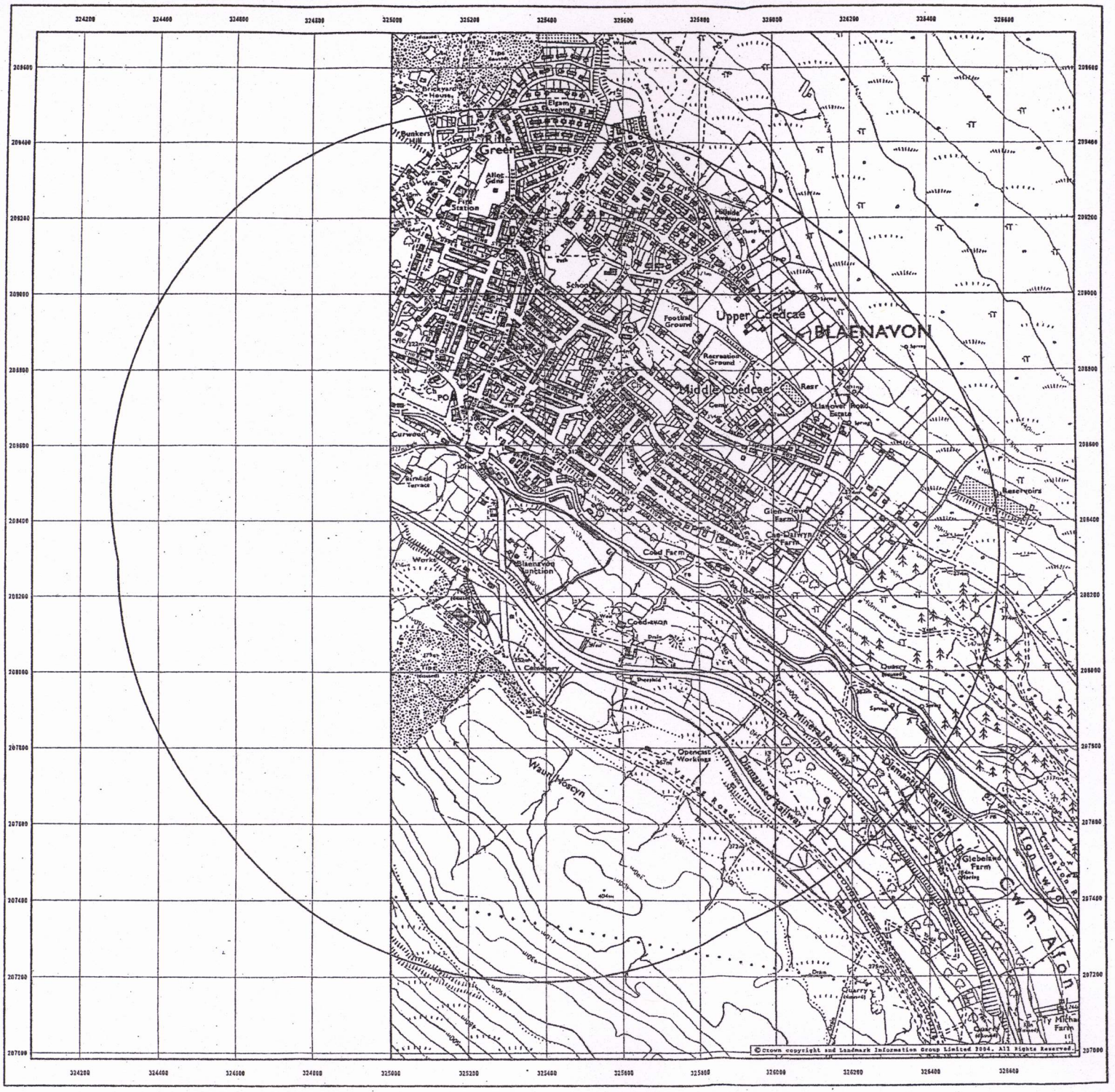

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Customer Ref: Mr J Belles,ES1487
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Carmarthenshire SA18 3SJ

SITE DETAILS Grid Reference 325430 208340

New Road Farm
Varteg Road
Blaenavon
Pontypool
Torfaen NP4 9DY

Historical Map Legend

- Chalk Pit, Clay Pit, or Quarry
- Gravel Pit
- Sand Pit
- Disused Pit or Quarry
- Refuse or Slag Heap
- Direction of Flow of Water
- Cutting
- Road "I" Under
- Non-coniferous Trees
- Coniferous Trees
- Scrub
- Lake, Loch or Pond
- Pylon
- Electricity Transmission Line
- Pole
- Shingle
- Sand
- Embankment
- Road Over
- Level Crossing
- Foot Bridge
- Bracken
- Heath
- Rough Grassland
- Reeds
- Saltings
- Marsh
- Standard Guage Multiple Track
- Standard Guage SingleTrack
- Siding, Tramway or Mineral Line
- Narrow Guage

ORDNANCE SURVEY PLAN

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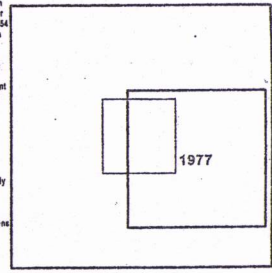
Source map scale - 1:10,000



Date(s) of Publication

12 of 14

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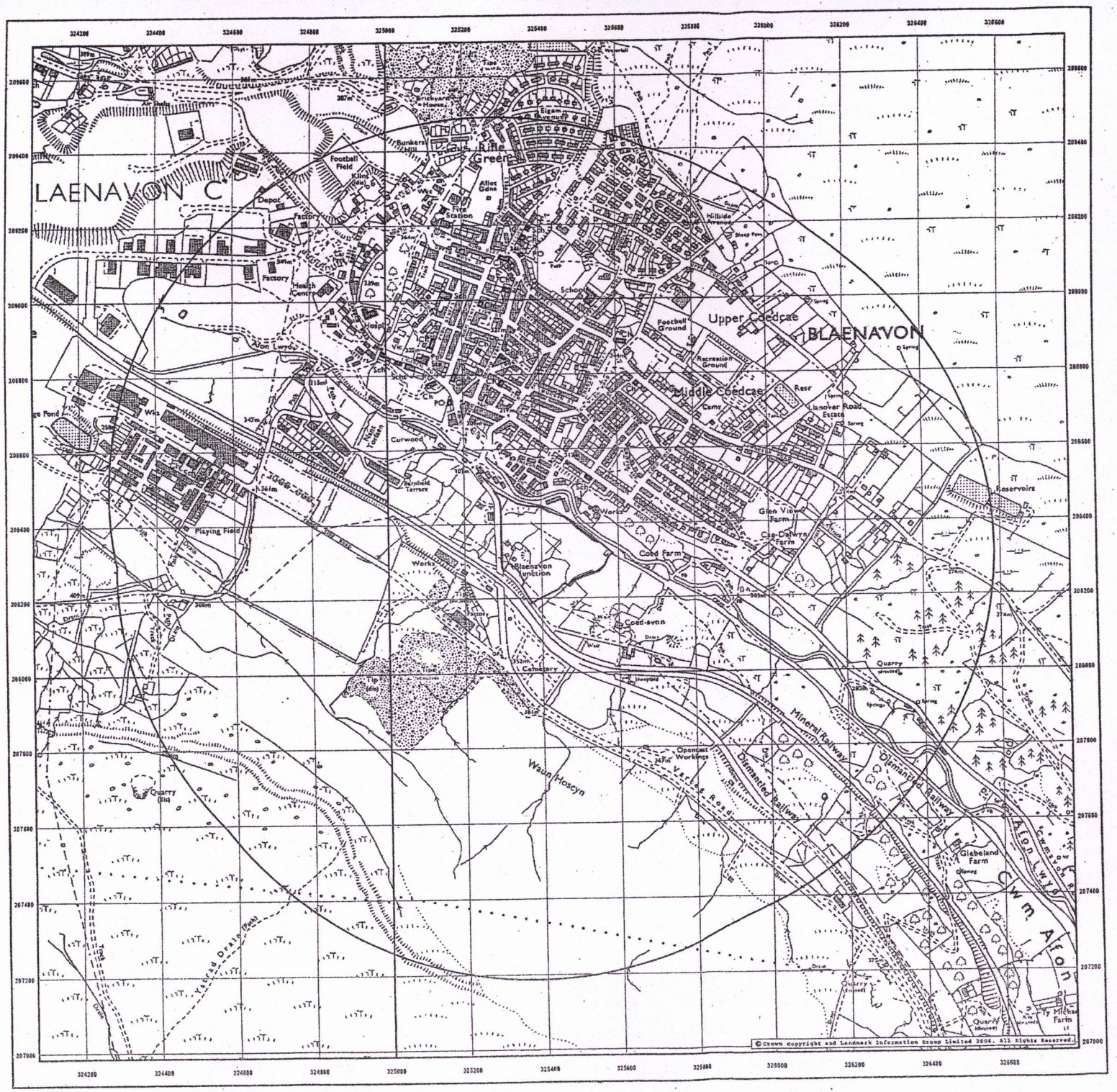

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Customer Ref: Mr J Bailes,ES1487
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Excel House Capel Hendre Industrial Estate
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Carmarthenshire SA18 3SJ

SITE DETAILS Grid Reference 325430 208340

New Road Farm
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Blaenavon
Pontypool
Torfaen NP4 9DY

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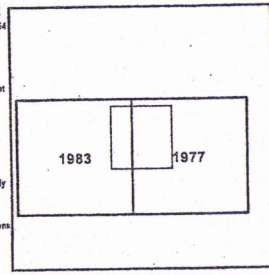
Source map scale - 1:10,000



Date(s) of Publication

13 of 14

Ordnance Survey Licensed Partner

LANDMARK Information Group

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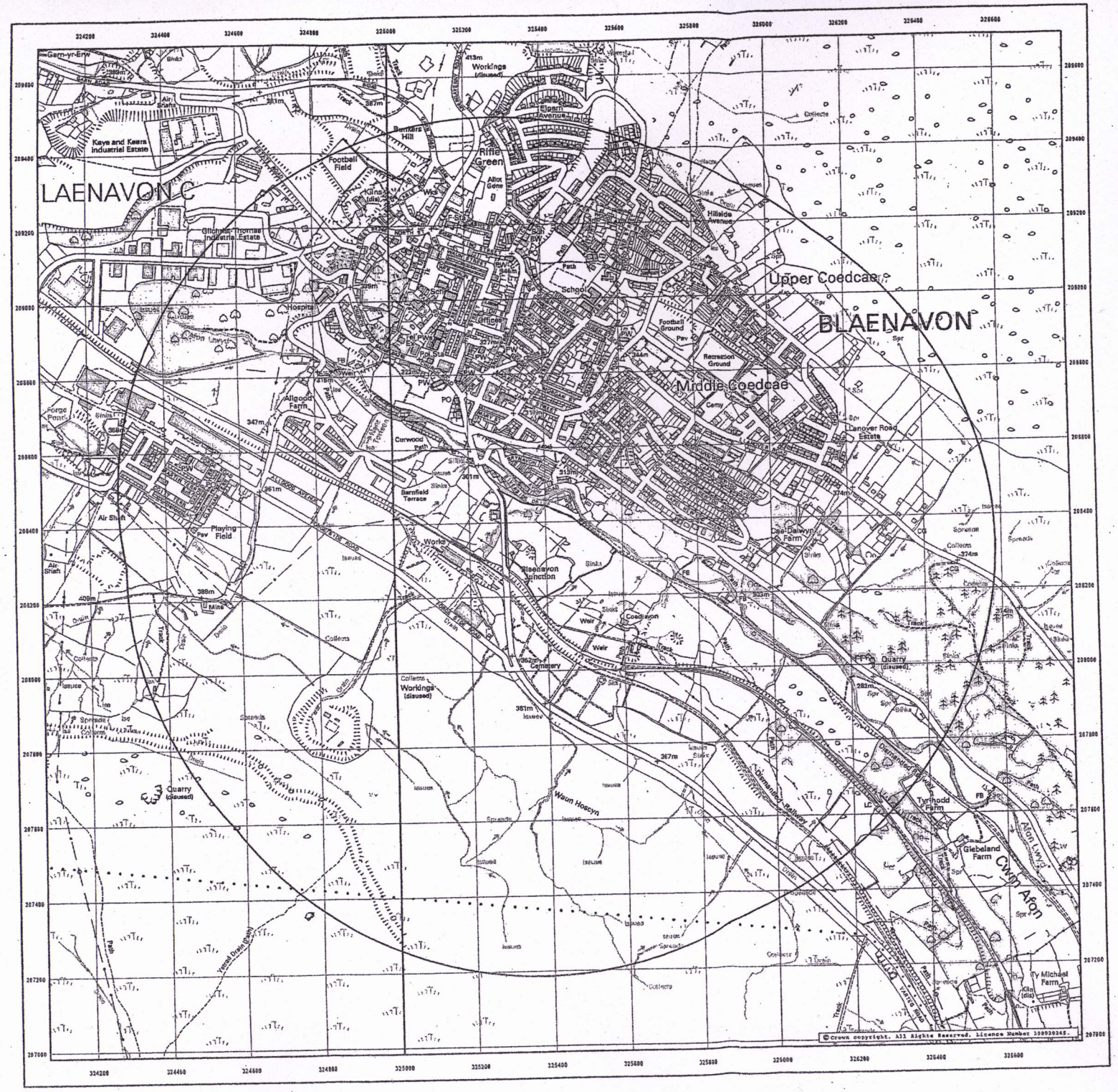

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Ammanford
Carmarthenshire SA18 3SJ

SITE DETAILS Grid Reference 325430 208340

New Road Farm
Varteg Road
Blaenavon
Pontypool
Torfaen NP4 9DY

Historical Map Legend

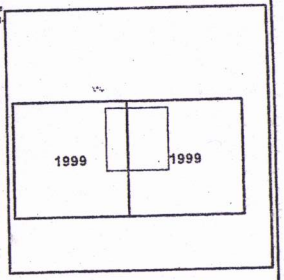
- Non-coniferous Trees
- Coniferous Trees
- Orchard
- Rough Grassland
- Heath
- Scrub
- Marsh, Salt Marsh or Reeds
- County Boundary (England only)
- Civil Parish or Community Boundary
- Constituency Boundary
- Pylon
- Telephone Line (where shown)
- Electricity Transmission Line (with poles)
- Gravel Pit
- Shingle
- Refuse Tip or Slag Heap
- Sand
- Sand Pit
- Slopes
- District, Unitary, Metropolitan, London Borough Boundary

ORDNANCE SURVEY PLAN

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan © which replaced the old 1:10,000 maps originally published in 1970.

The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Source map scale - 1:10,000



Date(s) of Publication

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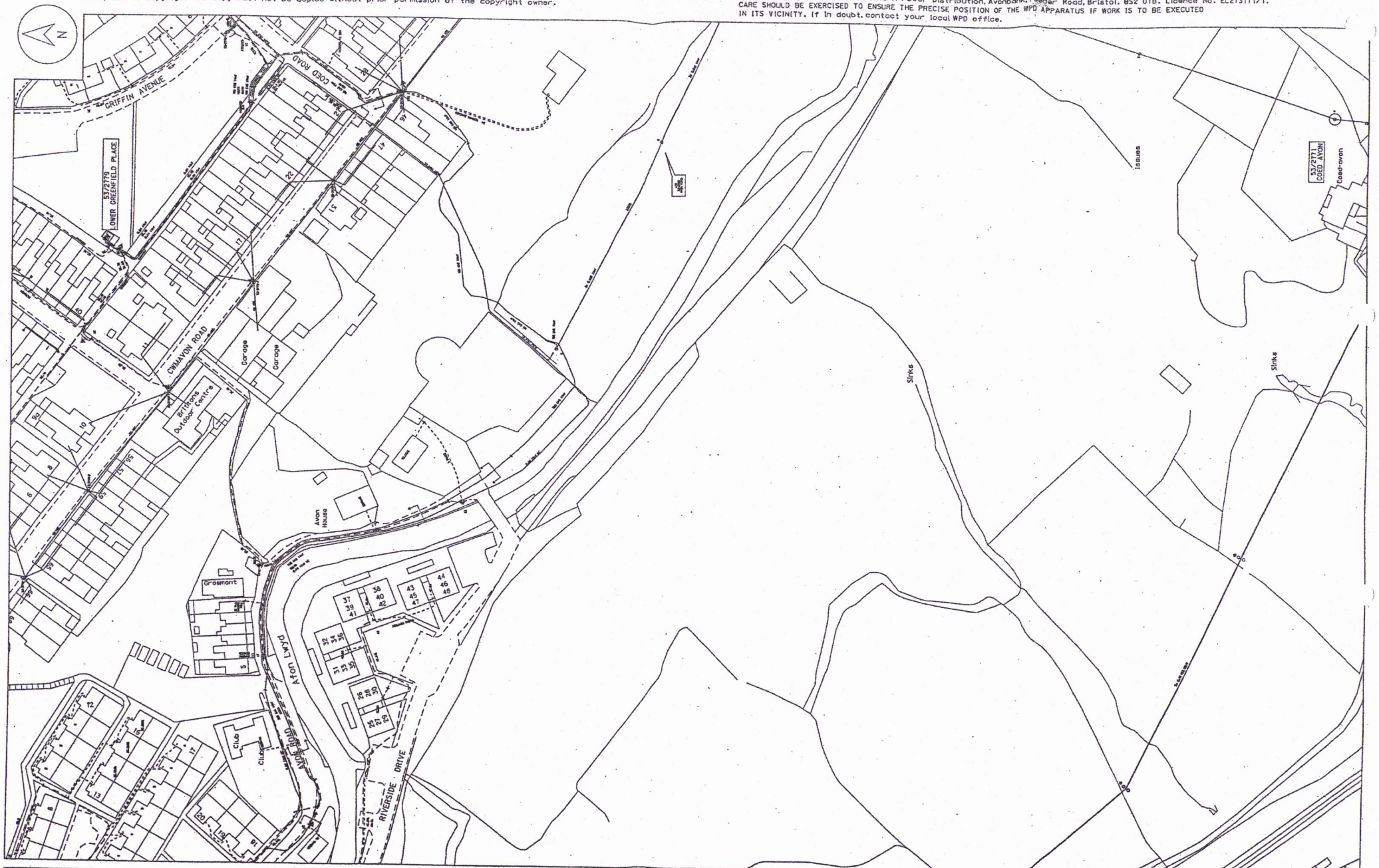
APPENDIX O

Services/Utilities



SURF TELECOMS APPARATUS
S — S — S

PILOT CABLES
P — P — P

OVERHEAD LINE
LV
11kV
33kV/66kV
132kV

UNDERGROUND CABLE

PME Earth

Underground Earth

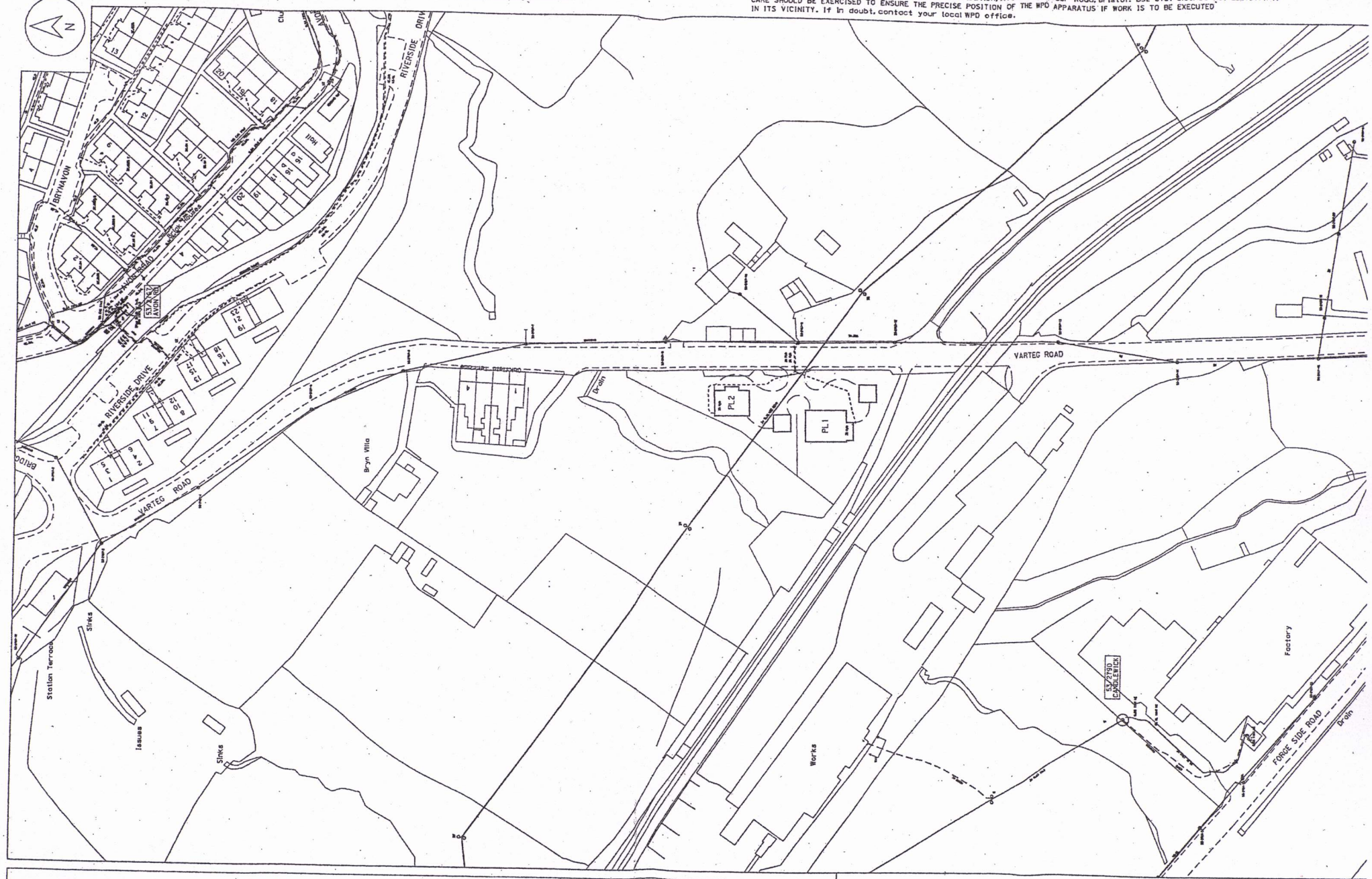
Pole Mounted Transformer

Ground Mounted Transformer

* ADVICE SHOULD BE SOUGHT FROM THE MAPPING CENTRE IN LAMBY WAY FOR ANY WORK THAT IS TO TAKE PLACE IN PROXIMITY TO 132kV UNDERGROUND CABLES AND 132kV OVERHEAD LINES

DATE: 23-2-2005
SCALE 1: 1250
REPLY BY: Lisette Williams
OUR REF: 26785/2
MAP REF: SO2508SE

WESTERN POWER DISTRIBUTION
Serving the South West and Wales



SURF. TELECOMS APPARATUS — S — S — S

PILOT CABLES — P — P — P

OVERHEAD LINE: LV; 11kV; 33kV/66kV; 132kV *

UNDERGROUND CABLE: LV; 11kV; 33kV/66kV; 132kV *

PME Earth

Underground Earth

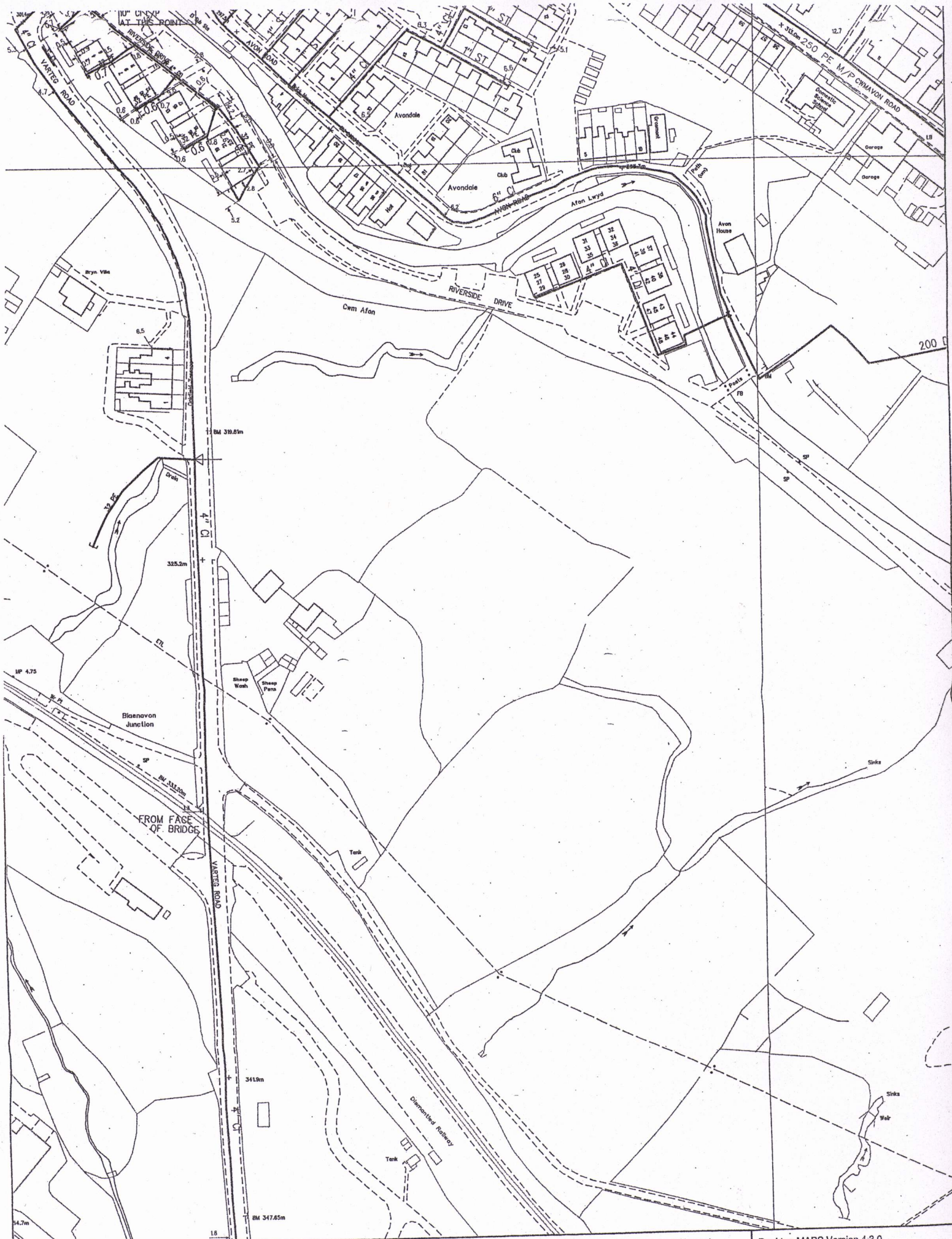
Pole Mounted Transformer

Ground Mounted Transformer

* ADVICE SHOULD BE SOUGHT FROM THE MAPPING CENTRE IN LAMBY WAY FOR ANY WORK THAT IS TO TAKE PLACE IN PROXIMITY TO 132kV UNDERGROUND CABLES AND 132kV OVERHEAD LINES

DATE: 23-2-2005
SCALE 1: 1250
REPLY BY: Lisette Williams
OUR REF: 26785/1
MAP REF: SO2508SW

WESTERN POWER DISTRIBUTION
Serving the South West and Wales



SCALE: 1 : 1250	LP MAINS
USER ID: ib065	MP MAINS
DATE: 21/02/2005	IP MAINS
NRSWA RESPONSE	LHP MAINS
GRID REFERENCE : 325393, 208329, SO2508	NHP MAINS

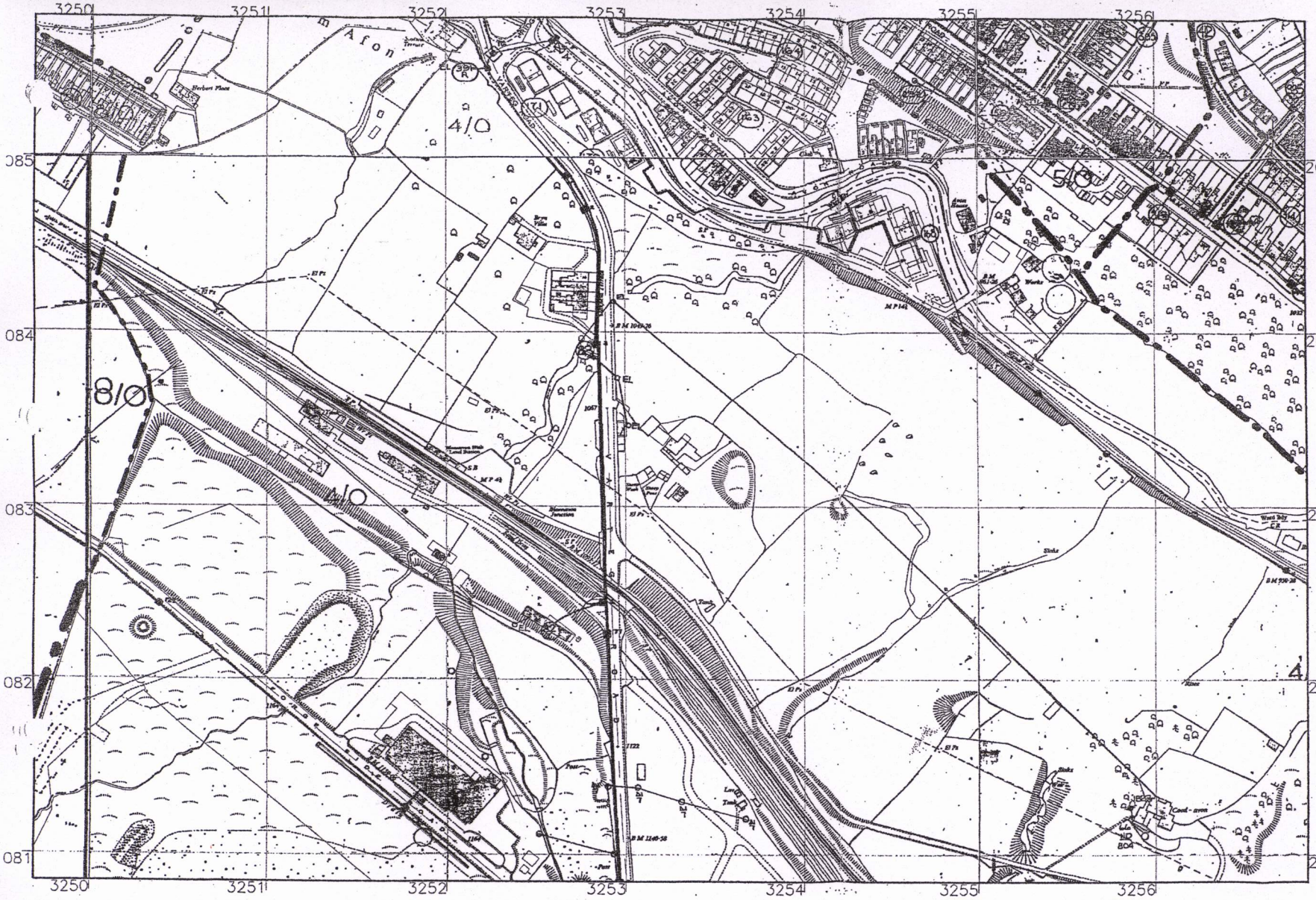
0m 50m

Approximate scale 1 : 1250 printed on A3 Colour Portrait

This plan shows those pipes owned by Transco plc or the relevant Gas Distribution Network in their roles as Licensed Gas Transporters (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc. are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Transco plc, the relevant Gas Distribution Network, or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.

Desktop MAPS Version 4.3.0

Bristol



KEY TO BT SYMBOLS

- UNDERGROUND PLANT
- A/C, D/W or W — OVERHEAD PLANT
- JOINT BOX
- DISTRIBUTION POINT
- MANHOLE
- POLE
- CABINET
- BURIED JOINT
- J — JOINTING POST
- PROPOSED U/G
- A/C, D/W or W — PROPOSED O/H
- PROPOSED BOX

Other proposed plant is shown using dashed lines.

Existing BT plant may not be recorded.

Information valid at the time of preparation.

FOR FREE ON SITE LOCATION & MARKING SERVICE CALL THE EXCHANGE OPERATOR AND ASK FOR:-

FREEPHONE 0800 9173993

FAX 0208 3264050

NATIONAL NEW SITES 0800 616866

IMPORTANT WARNING:
Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.

PLANT INFORMATION REPLY

British Telecommunications plc

Notes:

NEW ROAD FARM

If more information is required please submit larger scale plans

Dŵr Cymru
Welsh Water

ExCAL Limited