

AGRICULTURAL LAND CLASSIFICATION

WOOLLEY PARK, WOOLLEY, WEST YORKSHIRE

Proposed Golf Course Development

MAFF
Leeds Regional Office

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT, WOOLLEY PARK, WOOLEY, WEST
YORKSHIRE

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:-

SE 328136

Location Details:-

The site lies 7 km NNW of Barnsley town centre immediately to the NE of the village of Woolley

Site Size:-

80 ha

1.2 Survey Methods

Date Surveyed:-

7 February 1992

Boring Density and Spacing Basis:-

One boring per hectare carried out at 100m intervals except in non agricultural land at points predetermined by the National Grid.

Sampling Method:-

Hand auger boring to a depth of 1 metre

Number of Borings:-

58

All land quality assessments were made using the methods described in "Agricultural Land Classification of England and Wales: Revised Guidelines and Criteria for grading the quality of agricultural land (MAFF 1988)".

This detailed survey supersedes the previous "1" to one mile" survey of the area.

1.3 Land Use:-

Mainly arable but with some large areas of non-agricultural land (principally farm woodland), mainly in the east of the site.

1.4 Climate and Relief

Average Annual Rainfall (AAR):-	679 mm
Accumulated Temperature above 0°C (January-June):-	1324 day °C
Field Capacity Days:-	158 days
Moisture Deficit:	
wheat:-	95 mm
potatoes:-	83 mm
Altitude average:-	75 m a.o.d.
maximum:-	100 m a.o.d.
minimum:-	50 m a.o.d.
Climatic limitation (based on interaction of rainfall and temperature values):-	None
Relief:-	Gently to moderately sloping
Slopes (°):-	1° to 10°
Gradient Limitations:-	Yes

Limiting gradient(s):-

8° to 10°

Grade(s)/subgrade(s):-

Subgrade 3b

Occurrence on site:-

Two small areas in the east of the site.

1.5 Geology and Soil

Solid Strata:-

Carboniferous Coal Measures

Depth of solid rock from surface:-

Weathering sandstone occurs in places at 30 cm depth although the average depth to sandstone bedrock is about 70 cm. Coal Measure clays also occur within 1 m of the surface in parts of the site.

Drift types:-

Deposits of glacial sand and gravel occur in the east.

Thickness of drift and distribution:-

Where drift deposits occur they are more than 1m thick.

Soil Types and Distribution:-

Light textured soils occur mainly in the north with medium to heavy-textured soils occurring in central and southern parts of the site.

Soil Textures (topsoils and subsoils)-

Very variable but generally medium clay loam, sandy clay loam, medium sandy loam or fine sandy loam topsoils overlying heavy clay loam, medium clay loam, sandy loam, loamy sand or sand subsoils.

Soil Series/Associations:-

On 1/250000 map:-

Identified on site:-

Rivington I

Rivington I and Dale

Soil Limitations and type:-

Soil droughtiness and soil wetness are the main factors limiting ALC grade over most of the site.

1.6 Drainage

Soil type and Wetness Class:-

The light-textured soils are generally well-drained (Wetness Class I) and the medium to heavy-textured soils are usually imperfectly drained (Wetness Class III) or poorly drained (Wetness Class IV).

Drainage Limitations:-

Slowly permeable subsoils in many of the medium and heavy soils.

2.0 Agricultural Land Classification Grades

The ALC grades occurring on the site are as follows:-

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>Percentage of Agricultural Area</u>	<u>Percentage of Total Area</u>
1			
2	22.58	36.8	27.9
3a	29.48	48.2	36.4
3b	9.16	15.0	11.3
4			
5			
Non Agricultural	19.73		24.4
Agricultural Buildings			
Urban			
Other	_____	_____	_____
Total	80.95	100	100
	_____	_____	_____

Grade 2

Distribution on site:-

In four separate areas in the centre and west.

Soil Type(s) and Textures(s):-

Light to medium-textured soils, generally consisting of sandy loam or medium clay loam topsoils overlying loamy sand, sandy loam or medium clay loam upper subsoils and sand, loamy sand or heavy clay loam lower subsoils.

Depth to Slowly Permeable Layers:-

No slowly permeable layers occur.

Wetness and Drainage Class:-

Profiles are well to moderately well-drained falling in Wetness Classes I and II.

Stone Percentage and Type:-

Profiles are very slightly to slightly stony, with up to 8% small and medium-sized sandstones.

Grade Limiting Factors:-

Soil droughtiness and soil wetness.

Subgrade 3a

Distribution on site:-

Land in this subgrade covers much of the centre and east of the site.

Soil Type(s) and Texture(s):-

Generally light to medium-textured soils consisting of sandy loam or medium clay loam topsoils overlying similar upper subsoil and either loamy sand or heavy clay loam lower subsoils. Sandstone bedrock occurs in places at around 60cm depth.

Depth to Slowly Permeable Layers:-

Where they occur, slowly permeable layers generally begin at around 50cm depth.

Wetness and Drainage Class:-

Profiles are generally either well-drained (Wetness Class I) or imperfectly drained (Wetness Class III).

Stone Percentage and Type:-

Topsoils generally contain 4 - 8% small and medium-sized sandstones. Subsoils have a similar stone content except where they directly overlie sandstone bedrock in which case the stone content is often around 20%.

Grade Limiting Factors:-

Droughtiness on the lighter textured soils, especially those lying over sandstone bedrock and wetness on the heavier textured profiles containing slowly permeable subsoil horizons.

Subgrade 3b

Distribution on site:-

Four separate areas in the north and east.

Soil Type(s) and Texture(s):-

Generally sandy loam topsoils overlying loamy sand or sand subsoils with sandstone bedrock occurring within 50cm of the surface. In parts of the east medium clay loam topsoils overlie slowly permeable heavy clay loam or clay subsoils.

Depth to Slowly Permeable Layers:-

None present in the light textured soils over sandstone, but at 35 - 40 cm in the heavy soils.

Wetness and Drainage Class:-

The sandstone soils are generally well-drained (Wetness Class I). The heavy soils are poorly drained (Wetness Class IV).

Stone Percentage and Type:-

Generally 4.8% small to medium sized sandstones in the topsoil and up to 30% sandstones in the subsoil where sandstone bedrock occurs close to the surface

Grade Limiting Factors:-

Soil droughtiness on the sandstone soils. Soil wetness in the heavy poorly drained soils. Also gradients of 8 - 10% at a few points in the east.

Non Agricultural

Type and location of land included:-

Several areas of farm woodland principally in the east of the site and a farm track in the south west.

MAP