

AGRICULTURAL LAND CLASSIFICATION

Ravensthorpe Estate
Gateshead
Proposed Golf Course

MAFF
Leeds Regional Office

July 1991
File Ref: 2FCS 5326
Project No: 34/91

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MAP(S)

1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:-

NZ 235590

Location Details:-

Adjacent to A1 to the west of the Team Valley Estate approximately 3 km from Gateshead.

Site Size:-

125 hectares.

1.2 Survey Methods

Date Surveyed:-

15/16 May 1991.

Boring Density and Spacing Basis:-

1 per 100 m at points predetermined by the National Grid.

Sampling Method:-

Hand auger borings to a depth of 1 m.

Number of Borings:-

105.

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)".

1.3 Climate and Relief

Average Annual Rainfall (AAR):-	702 mm
Accumulated Temperature above 0°C (January-June):-	1285 day °C
Field Capacity Days:-	174 days
Altitude average:-	70 m a.o.d.
maximum:-	110 m a.o.d.
minimum:-	30 m a.o.d.
Climatic limitation (based on interaction of rainfall and temperature values):-	Grade 2
Gradient Limitation	
Limiting gradient(s):-	13°
Grade(s)/subgrade(s):-	3b
Occurrence on site:-	Western side of site.

1.4 Geology and Soil

Solid Strata:-	Coal measures.
Depth of solid rock from surface:-	More than 1 m in most places.
Drift types:-	Boulder clay.
Thickness of drift and distribution:-	At least 1 m in most parts of the site.

Soil Types and Distribution:-

Medium and heavy textured poorly drained boulder clay soils occur over most of the site.

Soil Textures (topsoils and subsoils):-

Medium and heavy clay loam over heavy clay loam or clay subsoils.

Soil Associations:-

On 1/250000 map:-

Identified on site:-

Brickfield.
Brickfield and
Dunkeswick.

Soil Limitations and type:-

Heavy topsoil texture in many parts of the site. Stoniness is limiting locally.

1.5 Drainage

Soil type and Wetness Class:-

Boulder clays:-
Wetness Classes II
III and IV.

Drainage Limitations:-

Poor drainage caused by slowly permeable subsoil horizons affects most soils across the site.

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>
3a	39.0	39.0	31.1
3b	61.2	61.0	48.8
Non Agricultural (Woodland)	21.9	-	17.5
Urban	3.2	-	2.6
Total	<u>125.3</u>	<u>100</u>	<u>100</u>

Subgrade 3a

Distribution on site:-

In the north west, south west and south eastern corners and in a broad swathe from Ravensworth Castle to Robins Wood.

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

Boulder clay soils containing medium and heavy clay loam topsoils over medium or heavy clay loam and clay subsoils.

Depth to Slowly Permeable Layers:-

Approximately 65 cm in profiles with heavy clay loam topsoil and 40 cm in profiles with medium clay loam topsoil.

Wetness and Drainage Class:-

Heavy clay loam topsoils:- Wetness Class II; Medium clay loam topsoils:- Wetness Class III.

Stone Percentage and Type:-

Up to 15% larger than 2 cm.
Up to 10% larger than 6 cm.

Grade Limiting Factors:-

Wetness and workability problems.

Subgrade 3b

Distribution on site:-

Large areas in the northern and central part of the site and towards the south and south western boundaries.

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

Boulder clay soils containing mainly medium and heavy clay loam topsoils over heavy clay loam or clay subsoils.

Depth to Slowly Permeable Layers:-

Slowly permeable from 30 cm.

Wetness and Drainage Class:-

Mainly Wetness Class IV, poorly drained.

Stone Percentage and Type:-

Up to 20% hard rock and medium sandstones.

Grade Limiting Factors:-

Severe wetness and workability problems in the central parts of the site, and strongly sloping gradients along the south western edge.

Non Agricultural

Type and location of land included:-

Mixed woodland between Shanks Wood
and Ravensworth Castle,
Robins Wood and Greenhouse Walks.

Urban

Type of land use included:-

Access roads through the site and
dwellings at South Lodge,
Rose Cottage and Sawmill Cottage,
along with the derelict
Ravensworth Castle.

Resource Planning Group
Leeds Regional Office
July 1991