AGRICULTURAL LAND CLASSIFICATION

STOBHILL FARM, MORPETH
NORTHUMBERLAND

PROPOSED HOUSING DEVELOPMENT

MAFF
Leeds Regional Office

July 1991
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AGRICULTURAL LAND CLASSIFICATION REPORT

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:- NZ 212 848

Location Details:- The site is situated on the south east edge of Morpeth at the A196/A192 junction.

Site Size:- 30 hectares

1.2 Survey Methods

Date Surveyed:- 18 July 1991

Boring Density and Spacing Basis:- At 100 m intervals on a grid pattern predetermined by the national grid.

Sampling Method:- By hand auger borings to a depth of 1 metre

Number of Borings:- 33

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 Land Use:- All the land surveyed was under arable use with cereals predominating

1.4 Climate and Relief

Average Annual Rainfall (AAR):-	698	mm
Accumulated Temperature above 0°C (January-June):-	1297	day °C
Field Capacity Days:-	181	days
Altitude average:-	50 m	a.o.d.
maximum:-	55 m	a.o.d.
minimum:-	48 m	a.o.d.

Climatic limitation (based on interaction of rainfall and temperature values:- Grade 2

Relief:- The site slopes gently eastwards towards the railway
Slopes (°):- 1-2°
Gradient Limitations:- None

1.5 Geology and Soil

Solid Strata:-	Coal Measures
Depth of solid rock from surface:-	More than 1 metre
Drift types:-	Boulder clay and lacustrine clay
Thickness of drift and distribution:-	More than 1 metre. Boulder clay and glaciofluvial drift occurs in the northern and eastern parts of the site and lacustrine clay in the south and west.
Soil Types and Distribution:-	Freely drained light textured soils occur in the north and east. Heavier soils dominate the remainder of the site and are particularly heavy in the western corner.
Soil Textures (topsoils and subsoils):-	Medium sandy loams over loamy medium sands in the east. Medium clay loam topsoils over heavy clay loam or clay in central area and heavy clay loam over clay in the west.
Soil Series/Associations:- On 1/250000 map:-	Foggathorpe 1 and Brickfield 3
Soil Limitations and type:-	Heavy topsoil textures, especially in the western part of the site.

1.6 Drainage

Soil type and Wetness Class:-	Light soils:- well drained (Wetness Class I) Medium and heavy soils:- poorly drained (Wetness Class IV)
Drainage Limitations:-	Slowly permeable subsoils in the heavy soils.

2.0 Agricultural Land Classification Grades

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

Grade/Subgrade	Hectares	Percentage of Total Area
3a	6.63	22%
3b	18.28	60%
4	5.45	18%
5		
Total	30.36	100

Subgrade 3a

Distribution on site:- In the north eastern corner of the site.

Soil Type(s) and Texture(s):- Generally sandy loam topsoils over lighter subsoils, sometimes passing into clay at depth.

Depth to Slowly Permeable Layers:- Slowly permeable layers occur in places between 40-90 cm depth.

Wetness and Drainage Class:- Wetness Class I, well drained.

Stone Percentage and Type:- A very few medium soft sandstones.

Grade Limiting Factors:- Soil droughtiness.

Subgrade 3b

Distribution on site:-	Widespread in the central and southern parts of the site.
Soil Type(s) and Texture(s):-	Boulder clay soils consisting of medium clay loam topsoils over heavy clay
Depth to Slowly Permeable Layers:-	30-45 cm
Wetness and Drainage Class:-	Wetness Class IV
Stone Percentage and Type:-	-
Grade Limiting Factors:-	Soil wetness and workability problems

Grade 4

Distribution on site:-	In the western corner of the site
Soil Type(s) and Texture(s):-	Lacustrine clay soils consisting of heavy clay loam topsoils over clay subsoils.
Depth to Slowly Permeable Layers:-	20-30 cm
Wetness and Drainage Class:-	Wetness Class IV
Stone Percentage and Type:-	-
Grade Limiting Factors:-	Soil wetness and workability problems

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