AGRICULTURAL LAND CLASSIFICATION

MANSFIELD FARM, HOOTON LEVITT
SOUTH YORKSHIRE
PROPOSED GOLF COURSE

MAFF
Leeds Regional Office

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AGRICULTURAL LAND CLASSIFICATION REPORT,

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:-	
Location Details:-	1 km south west of Maltby town centre in South Yorkshire
Site Size:-	59.3 ha

1.2 Survey Methods

Date Surveyed:-	8th January 1992
Boring Density and Spacing Basis:-	One boring per hectare carried out at 100 m intervals at points predetermined by the National Grid
Sampling Method:-	By hand auger to a depth of 1.00 m
Number of Borings:-	57
Number of Soil Pits (used for):-	One to confirm soil depth

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 ley grassland on the steeper slopes in the north and east of the site. Some small areas of urban and non-agricultural land also occur on the site
1.4 Climate and Relief	
Average Annual Rainfall (AAR):-	676 mm
Accumulated Temperature above 0°C (January-June):-	1,289 day °C
Field Capacity Days:-	139 days
Moisture Deficit:	
wheat:-	95 mm
potatoes:-	83 mm
Altitude average:-	107 m a.o.d.
maximum:-	122 m a.o.d.
minimum:-	80 m a.o.d.
Climatic limitation (based on interaction of rainfall and temperature values:-	Grade 2
Relief:-	Gently to steeply sloping
Slopes (°):-	1° - 17°
Gradient Limitations:-	Yes
Limiting gradient(s):-	8° - 17°
Grade(s)/subgrade(s):-	Subgrade 3b and Grade 4
Occurrence on site:-	In the north and east

1.5 Geology and Soil

Solid Strata:-	Magnesian Limestone
Depth of solid rock from surface:-	Varies greatly across the site from 20 - >100 cm
Drift types:-) **Thickness of drift and distribution:-**)	None except for a thin cover of loamy material formed from weathering limestone
Soil Types and Distribution:-	Medium-textured topsoils cover the entire site and either directly overlie limestone bedrock or overlie a medium to heavy-textured subsoil.
Soil Textures (topsoils and subsoils):-	Generally medium clay loam topsoils overlying medium clay loam, heavy clay loam or silty clay subsoils. In some places the topsoil directly overlies bedrock
Soil Series/Associations:-	
On 1/250000 map:-	Aberford
Identified on site:-	Aberford
Soil Limitations and type:-	Soil droughtiness is a limiting factor over much of the site

1.6 Drainage

Soil type and Wetness Class:- Soils are generally well-drained falling in Wetness Class I except in parts of the north where some poorly drained profiles fall in Wetness Class IV

Drainage Limitations:- Slowly permeable subsoils in some areas near the northern edge of the site

2.0 Agricultural Land Classification Grades

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

Grade/Subgrade	Hectares	Percentage of Agricultural Area	Percentage of Total Area
1			
2	12.1	21.5%	20.4
3a	11.4	20.2%	19.2
3b	25.5	45.2%	43.0
4	7.4	13.1%	12.5
5			--
Non Agricultural	1.9		3.2
Agricultural Buildings			
Urban	1.0		1.7
Other			
Total	59.3	100	100

Grade 2

Distribution on site:-	On the flatter land in the south, west and centre of the site
Soil Type(s) and Texture(s):-	Medium-textured soils - generally medium clay loam topsoils and subsoils
Depth to Slowly Permeable Layers:-	None present
Wetness and Drainage Class:-	Soils are well-drained and fall in Wetness Class I
Stone Percentage and Type:-	Generally around 8% limestones in the topsoil and subsoil. Limestone bedrock sometimes occurs at depths of 80 - 100 cm
Grade Limiting Factors:-	Slight droughtiness and the overall climatic limitation

Subgrade 3a

Distribution on site:-	In three separate areas in the centre and west
Soil Type(s) and Texture(s):-	Light to medium-textured soils with medium clay loam or fine sandy loam topsoils overlying medium clay loam upper subsoils, passing into weathering limestone bedrock at about 50 cm depth
Depth to Slowly Permeable Layers:-	None present
Wetness and Drainage Class:-	These soils are well-drained and fall within Wetness Class I
Stone Percentage and Type:-	Approximately 10% limestones in the topsoil and upper subsoil (limestone bedrock often occurs at around 50 cm depth)
Grade Limiting Factors:-	Soil droughtiness

Subgrade 3b

Distribution on site:-	Three separate areas in the north, south, east and central parts of the site
Soil Type(s) and Texture(s):-	Generally medium-textured topsoils (usually medium clay loam) overlying either limestone bedrock or, in the north, medium to heavy-textured subsoil (medium clay loam, heavy clay loam or silty clay)
Depth to Slowly Permeable Layers:-	Slowly permeable layers occur at around 35 cm depth in the northern area of this subgrade, but are absent elsewhere
Wetness and Drainage Class:-	Where slowly permeable layers occur in the north soils are poorly drained and fall in Wetness class IV. Elsewhere profiles are well drained (Wetness Class I)
Stone Percentage and Type:-	5% - 15% limestones in the topsoil, with limestone bedrock occurring at depths of 20-40 cm in the centre and south of the site.
Grade Limiting Factors:-	Soil wetness in the northern area of subgrade 3b. Other areas are limited by droughtiness and/or gradient

Grade 4

Distribution on site:-	Along the steeply sloping eastern edge
Soil Type(s) and Texture(s):-	Medium-textured soils - medium clay loam topsoils generally overlie similarly textured subsoils
Depth to Slowly Permeable Layers:-	None present
Wetness and Drainage Class:-	Profiles are generally well drained, falling into Wetness Class I
Stone Percentage and Type:-	Most soils contain around 10% medium to large limestones and limestone bedrock generally occurs within 80 cm of the surface
Grade Limiting Factors:-	Slopes of 11° - 17°

Non Agricultural

Type and location of land included:-

Two small areas of woodland, in the south and east respectively, and an area of scrubland in the south-east

Urban

Type of land use included:-

A farm track running through the centre of the site

Resource Planning Group
Leeds Regional Office
January 1992

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