AGRICULTURAL LAND CLASSIFICATION

LOWER ALTOFTS

NORMANTON

WEST YORKSHIRE

MAFF

Leeds Regional Office

JUNE 1991

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lds.AL4.alto.fts

CONTENTS

MAP(S)

AGRICULTURAL LAND CLASSIFICATION REPORT

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:-	SE 387 247 (Centre of the site)
Location Details:-	7 kms NE of Wakefield City Centre
Site Size:-	76 ha

1.2 Survey Methods

Date Surveyed:-	11 and 17 June 1991
Boring Density and Spacing Basis:-	1 boring per hectare at 100 m intervals predetermined by the National grid
Sampling Method:-	By hand auger to a depth of 1.00 m
Number of Borings:-	65
Number of Soil Pits (used for):-	None

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)".

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1.3 Climate and Relief

Average Annual Rainfall (AAR):-	625 mm
Accumulated Temperature above 0°C (January-June):-	1.397 day °C
Field Capacity Days:-	138 days
Altitude average:-	20 m a.o.d.
maximum:-	25 m a.o.d.
minimum:-	15 m a.o.d.
Climatic limitation (based on interaction of rainfall and temperature values:-	None

Gradient Limitation

Limiting gradient(s):-	None
Grade(s)/subgrade(s):-	
Occurrence on site:-	

1.4 Geology and Soil

Solid Strata:-	Carboniferous Coal Measures.
Depth of solid rock from surface:-)	Less than 1 m in places.
Drift types and distribution:-	Coarse textured river terrace deposits in the north, thin medium or heavy drift derived from the underlying coal measure shales elsewhere.

Soil Types and Distribution:-	Variable soils formed from both drift and solid strata.
Soil Textures (topsoils and subsoils):-	Variable, usually medium clay loam topsoils overlying medium clay loam or heavy clay loam subsoils. Coarse textured subsoils occur on the terrace deposits on the northern boundary.
Soil Limitations and type:-	Droughtiness is the main limitation on ALC grade on the lighter soils in the north. Elsewhere soils are limited by slight winter wetness.

1.5 Drainage

Soil type and Wetness Class:-	Varies from Wetness Class I on soils with a medium textured topsoil over a light or medium subsoil to Wetness Class IV where heavy textured subsoils form a slowly permeable layer close to the surface.

Drainage Limitations:-	Slowly permeable subsoils on the Coal Measure clays and heavier drift deposits.

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
2	37.9	56.5	49.6
3a	16.8	25.0	22.0
3b	12.4	18.5	16.2
Non Agricultural	5.6		
Agricultural Buildings	1.5		7.3
Urban	2.2		2.0
Other			2.9
Total	76.4	100	100

Grade 2

Distribution on site:-	Three separate areas in the south, north and north east of the site.
Soil Type(s) and Texture(s):-	Variable light or medium textured topsoil (medium sandy loam or medium clay loam) over light to heavy textured subsoils (textures vary from loamy sand to heavy clay loam or clay).
Depth to Slowly Permeable Layers:-	No slowly permeable layers were found in most of the grade 2 land. In the few cases where they do occur the average depth to the slowly permeable layer is 70 cm.
Wetness and Drainage Class:-	Wetness Classes I, II and III well drained to poorly drained.
Stone Percentage and Type:-	0-10% hard rock or medium soft sandstone.
Grade Limiting Factors:-	Slight wetness in winter along with slight droughtiness in summer.

Subgrade 3a

Distribution on site:-	In two bands running across the north and central parts of the site.
Soil Type(s) and Texture(s):-	Medium textured topsoils (generally medium clay loam) over either light textured (generally medium sandy loam) or, more often, heavy textured subsoils (either heavy clay loam or heavy silty clay loam).
Depth to Slowly Permeable Layers:-	No slowly permeable layers occur in the light textured soils. On the heavier land depth to a slowly permeable layer varies from 20 cm to 60 cm, the average being 45 cm.
Wetness and Drainage Class:-	Most soils in this subgrade fell in Wetness Classes III or IV with a few falling in Classes I or II.
Stone Percentage and Type:-	0-15% sandstones or hard rock.
Grade Limiting Factors:-	Soil wetness and, in areas of light land, soil droughtiness.

Subgrade 3b

Distribution on site:-	In a band running from the north west to the centre of the site.
Soil Type(s) and Texture(s):-	Medium or heavy textured topsoils over medium or heavy subsoils (sandy clay loam, heavy clay loam, heavy silty clay loam).
Depth to Slowly Permeable Layers:-	On average 30 cms.
Wetness and Drainage Class:-	Wetness Class III and, more commonly, Wetness Class IV.
Stone Percentage and Type:-	Stoneless topsoils, but subsoil horizons often contained up to 15% soft sandstones.
Grade Limiting Factors:-	Soil wetness and workability problems.

Non Agricultural

Type and location of land included:-	Woodland in the north east and allotments and a playing field in the centre of the site.

Agricultural Buildings

Type and location of building included:-	Low House Farm (farmhouse and outbuildings) in the east and Grange Farm (outbuildingly only), in the south.

Urban

Type of land use included:-	Housing, other buildings and roads.

Resource Planning Group
Leeds Regional Office
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