

AGRICULTURAL LAND CLASSIFICATION

SOUTH MARSH FARM,

BARTON ON HUMBER, HUMBERSIDE

PROPOSED LOCAL PLAN EXTENSION

MAFF
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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:- TA 045 225
Location Details:- One mile east of
Barton-on-Humber

Site Size:- 68.6 hectares

1.2 Survey Methods

Date Surveyed:- 16 March 1992

Boring Density and Spacing Basis:- One boring per hectare at one
hundred metre intervals on a
grid predetermined by the
National Grid.

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

Number of Borings:- 70

Number of Soil Pits (used for):- One small inspection pit was
dug to examine soil structure.

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:-

All agricultural land is in arable use. There is also an area of open water surrounded by scrub in a disused clay pit in the north eastern part of the site.

1.4 Climate and Relief

Average Annual Rainfall (AAR):-

634 mm

Accumulated Temperature above
0°C (January-June):-

1402 day °C

Field Capacity Days:-

138 days

Moisture Deficit:

wheat:-

113 mm

potatoes:-

105 mm

Altitude average:-

5 m a.o.d.

maximum:-

5 m a.o.d.

minimum:-

3 m a.o.d.

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

Relief:-

Virtually flat, but subdivided
by deep drainage ditches

Slopes (°):-

0-1°

Gradient Limitations:-

None

1.5 Geology and Soil

| | |
|---|---|
| Solid Strata:- | Chalk |
| Depth of solid rock from surface:- | Very much greater than 1m |
| Drift types:- | Calcareous marine alluvial clays. |
| Thickness of drift and distribution:- | Greater than 1 metre over the whole site. |
| Soil Types and Distribution:- | Pelo-calcareous alluvial (Newchurch series) and pelo-alluvial (Wallasea series) gley soils cover the whole site. |
| Soil Textures (topsoils and subsoils):- | Topsoils:- heavy clay loam or heavy silty clay loam; often calcareous. Subsoils:- heavy silty clay loam, clay or silty clay; often calcareous. |
| Soil Associations:- | |
| On 1/250000 map:- | Newchurch |
| Identified on site:- | Newchurch |
| Soil Limitations and type:- | Heavy top soils and slowly permeable subsoils resulting in soil wetness and workability problems. |

1.6 Drainage

Soil type and Wetness Class:-

Heavy soils fall within wetness Classes III or IV depending on depth to slowly permeable layer.

Drainage Limitations:-

Slowly permeable subsoils resulting in surface wetness.

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 | | | |
| 3a | 4.9 | 8.1 | 7.1 |
| 3b | 55.8 | 91.9 | 81.4 |
| 4 | | | |
| 5 | | | |
| Non Agricultural | 1.8 | | 2.6 |
| Agricultural Buildings | | | |
| Urban | 0.8 | | 1.2 |
| Other | 5.3 | | 7.7 |
| Total | <u>68.6</u> | <u>100</u> | <u>100</u> |

Subgrade 3a

Distribution on site:-

Two small areas in the north and east

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

Typical profiles consist of calcareous heavy clay loam or heavy silty clay loam topsoils over similar or heavier subsoils.

Depth to Slowly Permeable Layers:-

40-60 cm

Wetness and Drainage Class:-

Wetness Class III - imperfectly drained

Stone Percentage and Type:-

0%.

Grade Limiting Factors:-

Soil wetness and workability problems ameliorated slightly by the calcareous nature of the topsoil

Subgrade 3b

Distribution on site:-

Most of the area

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

Typical profiles consist of heavy clay loam or silty clay loam topsoils, which may be calcareous, over clay or silty clay subsoils.

Depth to Slowly Permeable Layers:-

10-35cm

Wetness and Drainage Class:-

Wetness Class IV - poorly drained

Stone Percentage and Type:-

0%

Grade Limiting Factors:-

Soil wetness and workability problems

Non Agricultural

Type and location of land included:-

The water filled clay pit surrounded by scrub in the north eastern part of the site.

Urban

Type of land use included:-

The access road and derelict buildings at South March Farm.

Resource Planning Group
Leeds Regional Office
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MAP