

AGRICULTURAL LAND CLASSIFICATION

Morton Grange, Nunthorpe (Cleveland)  
Proposed Golf Course

MAFF  
Leeds Regional Office

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AGRICULTURAL LAND CLASSIFICATION REPORT

ON THE PROPOSED GOLF COURSE AT MORTON GRANGE, NUNTHORPE, CLEVELAND

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:- NZ 555145.  
Location Details:- Approximately 2 km south east of Nunthorpe, to the east of the A1043.  
  
Site Size:- 61 hectares.

1.2 Survey Methods

Date Surveyed:- 20.5.91  
  
Boring Density and Spacing Basis:- 1 per 100 m predetermined by the National Grid.  
  
Sampling Method:- Hand auger borings to 1 m depth.  
  
Number of Borings:- 50.

Number of Soil Pits (used for):- -

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):- 682 mm

Accumulated Temperature above  
0°C (January-June):- 1274 day°C

Field Capacity Days:- 170 days

Altitude average:- 90 m a.o.d.

    maximum:- 95 m a.o.d.

    minimum:- 85 m a.o.d.

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

Gradient Limitation Nil.

#### 1.4 Geology and Soil

Solid Strata:-

Lias Clay.

Depth of solid rock from surface:-

More than 1 m.

Drift types:-

Boulder Clay.

Thickness of drift  
and distribution:-

Over one metre in depth  
covering the whole of the  
site.

Soil Types and Distribution:-

Gleyed and slowly permeable  
boulder clay cover the  
whole site.

Soil Textures (topsoils and subsoils):-

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

Soil Series/Associations:-

Dunkeswick.

On 1/250000 map:-

Dunkeswick.

Identified on site:-

Dunkeswick.

Soil Limitations and type:-

Soil wetness and  
workability.

#### 1.5 Drainage

Soil type and Wetness Class:-

Mainly Wetness Class IV and  
III. Wetness Class II where  
there is no slowly permeable  
horizon.

Drainage Limitations:-

Slowly permeable subsoils.

## 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>
2	5.3	9.3	8.7
3b	51.9	90.7	84.8
Non Agricultural Agriculture Buildings	21.4		3.1
Urban	1.9		3.4
Total	<hr/> 61.2 <hr/>	<hr/> 100 <hr/>	<hr/> 100 <hr/>

Grade 2

Distribution on site:-

Two small areas, in the North and near the eastern boundary of the site.

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

Medium clay loam over heavy clay loam over clay at depth.

Depth to Slowly Permeable Layers:-

65 cm+.

Wetness and Drainage Class:-

II.

Stone Percentage and Type:-

5% Hard Rock.

Grade Limiting Factors:-

Slight wetness and workability problem.

Subgrade 3b

Distribution on site:- Over the majority of the site.

Soil Type(s) and Texture(s):- Heavy clay loam topsoils over clay subsoils below 20 cm depth.

Depth to Slowly Permeable Layers:- 20 cm+

Wetness and Drainage Class:- Predominantly IV some III.

Stone Percentage and Type:- -

Grade Limiting Factors:- Wetness and soil workability problems.