

AGRICULTURAL LAND CLASSIFICATION

PROPOSED GOLF COURSE
MILL LANE, WARMSWORTH

MAFF
LEEDS REGIONAL OFFICE

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT FOR THE PROPOSED GOLF COURSE,
WARMSWORTH, SOUTH YORKSHIRE

SECTION 1: INTRODUCTION AND SITE CHARACTERISTICS

1.1 LOCATION

The site is located around national grid reference SE 543016, approximately 4 km south west of Doncaster town centre. It covers 17.8 ha, 75.8 per cent of which is in agricultural use.

1.2 SURVEY METHOD

Survey work was carried out in March 1990 when soils were examined by hand auger borings at 100 m intervals pre-determined by the National Grid. Soil profile pits were also dug where necessary to assess stoniness, soil structural characteristics, gley morphology and 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).

1.3 LAND USE

Agricultural land use on the site is mixed, comprising of winter cereals, permanent pasture and rough grazing . Woodland occurs on the steeper slopes and on land liable to flood.

1.4 CLIMATE

Average annual rainfall in the area is approximately 589 mm. Accumulated temperature above 0°C, between January and June is 1415 day °C and the land is at field capacity for about 124 days a year. There is thus no overall climatic restriction on ALC grade. Soil moisture deficits of 111 mm for winter wheat and 103 mm for potatoes indicate a moderate drought limitation for the light and very light profiles east of Sprotsborough Boat.

1.5 RELIEF

The land slopes strongly and moderately steeply to a flat low lying area adjacent the River Don. Steep to very steep slopes are associated with the flood protection levee. On these slopes gradient limits agricultural land quality.

1.7 SOILS AND GEOLOGY

Soils in the southern part of the site have developed over lower magnesian limestone. Here soils typically consist of slightly stony, slightly calcareous sandy clay loams and clay loams.

Soils developed on alluvial deposits occur in the low lying northern part of the site adjacent the River Don. Here a range of soil types are found. To the east silty clay loam and sandy clay loam topsoils that are organic mineral in places overlie silty clay loam and fine sandy clay loam subsoils that are distinctly gleyed and slowly permeable. Further west stoneless sandy loam topsoils overlie sandy clay loams, sandy loams, loamy sands and sands.

SECTION 2: AGRICULTURAL LAND CLASSIFICATION GRADES

The ALC grades occurring on this site are as follows.

Grade	Hectares	Percentage of Total Site Area
1	1.6	9.0
2	2.6	14.6
3a	3.9	21.9
3b	1.9	10.7
4	1.4	7.9
5	2.1	11.8
Non Agricultural	<u>4.3</u>	<u>24.1</u>
TOTAL	17.8	100

Grade 1

Grade 1 land occurs on the light to medium textured alluvial soils of the site. Here soils fall into Wetness Class I. They are easily worked for most of the year and have adequate reserves of available water during summer months. There are thus no significant restrictions on ALC grade.

Grade 2

This land is found on the southern edge of the site where slopes are gentle to moderate. Soils are slightly stony, calcareous and medium in texture. Top soil stone content is the principal factor limiting agricultural land quality and this also contributes to a slight degree of droughtiness.

Subgrade 3a

Subgrade 3a land occurs in two distinct areas, both on the low lying alluvial soils. Soils to the east have medium silty clay loam and sandy clay loam topsoils that are organic mineral in places overlying gleyed and slowly permeable subsoils. These soils generally fall into Wetness Class III and are restricted to Subgrade 3a by moderate wetness and topsoil workability problems.

Further west, soils of very light and light texture occur. Here soil droughtiness is moderately limiting and is the overriding restriction on ALC grade.

Subgrade 3b

Gradient limits ALC grade in an area of land running through the middle of the site. The area of 3b land is characterised by strongly sloping gradients.

Grade 4

Moderate to steep slopes is the factor limiting ALC grade over most of this land. A small area of disturbed and compacted soils adjacent to the A1(M) is limited to grade 4 because of droughtiness.

Grade 5

Grade 5 land is associated with the flood levee where steep and very steep slopes severely limit agricultural land use.

Non Agricultural

This comprises of three discrete areas of woodland and scrub woodland.

MAPS