

**AGRICULTURAL LAND CLASSIFICATION
WESTERFIELD HOUSE FARM, IPSWICH, SUFFOLK**

1. BACKGROUND

- 1.1 This 53 ha site was inspected during July and October 1992, in connection with residential development proposals. A total of 50 soil inspections were made at 100 metre intervals across the site using a hand held Dutch soil auger. This data was supplemented by observations from five deep soil profile pits. During July the agricultural land was predominantly in arable use, supporting sugar beet and cereals. Smaller areas of soft fruit and grassland occurred in the vicinity of the railway line.
- 1.2 On the provisional 1:63,360 scale agricultural land classification (ALC) map, (MAFF 1972) the survey area is shown entirely as grade 2. The current survey was undertaken to provide a more detailed representation of agricultural land quality.

2. PHYSICAL FACTORS AFFECTING LAND QUALITY

Climate

- 2.1 Climate data for the site was extrapolated from data contained within the published agricultural climatic dataset (Met Office, 1989). This indicates that average annual rainfall is 595 mm (23.4 inches) and that the field capacity days are 107. Moisture deficits of 123 mm and 119 mm were recorded for wheat and potatoes respectively. The accumulated temperature (Jan-June) is approximately 1400 degrees Celsius. These climatic characteristics do not impose any limitations on ALC grade.

Altitude and Relief

- 2.2. The site occupies very gently sloping land between altitudes of 45m and 51m. Neither gradient nor altitude constitute limitations to land quality.

Geology

- 2.3 The 1:63,360 scale drift edition geology map, sheet 207 (Geological Survey, 1965) shows the majority of the site to comprise glacial boulder clay drift with smaller areas of glacial sands and gravels mapped to the immediate north of railway line and in the vicinity of Two Gables Farm.

Soils

- 2.4 No detailed soil map exists for this area, however the generalised 1:250,000 scale soils map (Soil Survey of England and Wales 1983) shows the occurrence of the Ashley soil association to the south of the railway line and the Ludford soil association to the north.
- 2.5 Detailed field survey observations indicate that in general the soils occurring on site are slightly heavier than the published soil map suggests. Over the majority of the site profiles typically comprise very slightly stony sandy clay loam topsoils overlying slightly to very slightly stony non calcareous clay or sandy clay upper subsoils. These upper subsoils typically overlie chalky boulder clay lower subsoils between 55-75 cm depth although this may vary locally between 35 cm and 100 cm plus. Drainage is mainly assessed as wetness class II, although areas of wetness class I soils also occur to the north of the railway line where profiles contain a much greater proportion of coarse pores. Small areas of more poorly drained land to the south east of Westerfield House are assessed as wetness class III.
- 2.6 Exceptions to the above occur in the extreme south east corner of the site, to the south of Two Gables Farm, and to the north of Allens Farm where lighter textured sandy loam, sandy clay loam and clay loam upper subsoils occur. These upper subsoils typically overlie lower subsoils of clay in the south east and to the south of Two Gables Farm, or progressively lighter textured variably stony loamy sand and sand to the north of Allens Farm. Soil drainage is assessed as wetness class I or II.

3.0 AGRICULTURAL LAND CLASSIFICATION

3.1 The site is predominantly graded 2, with a slightly smaller area of 3a. The sports ground in the south east corner of the site is mapped as non-agricultural. A breakdown of ALC grades in hectares and percentage terms is provided below.

ALC Grade	Ha	%
2	27.2	51.1
3a	21.0	39.5
Non Agricultural	4.3	8.1
Urban	<u>0.7</u>	<u>1.3</u>
Total	53.2	100.0

Grade 2

- 3.2 This is mapped extensively across the site encompassing both the heavier and lighter textured soil variants described in paragraphs 2.5 and 2.6. Within the areas of heavier soils grade 2 occurs where profiles are less stony and/or incorporate better structured and more freely draining chalky boulder clay nearer the surface. These soils are assessed as wetness class II, or wetness class I in the north, and are limited by minor summer droughtiness and winter wetness imperfections.
- 3.3 Grade 2 is also mapped in the areas of slightly lighter soils where sandy clay loam and clay loam upper subsoils overlie clay at depth. These soils are assessed mainly as wetness class II and are limited by minor summer droughtiness and winter wetness imperfections.

Subgrade 3a

- 3.4 This occurs elsewhere on site in two main situations. Firstly in the more poorly drained and/or stony variants of soils described in paragraph 2.5 where the land is limited by summer droughtiness and/or winter wetness imperfections. To the north of Allens Farm subgrade 3a is also mapped where the lighter textured soils identified in paragraph 2.6 overlie variably stony loamy sand and sand at depth. This land is limited by summer droughtiness imperfections.

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