

AGRICULTURAL LAND CLASSIFICATION

LILAC HOUSE FARM, CARLTON, CLEVELAND  
PROPOSED RESIDENTIAL DEVELOPMENT

ADAS  
LEEDS REGIONAL OFFICE

JULY 1989

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1. Agricultural Land Classification

**AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND  
AT LILAC HOUSE FARM, CARLTON, CLEVELAND**

**1.1 INTRODUCTION**

The site (Grid Reference NZ 393220) is located immediately north west of Carlton a small village about 5 km north west of Stockton-on-Tees, Cleveland. It covers an area of 29.5 hectares all of which is currently in agricultural use.

Survey work was carried out in early June 1989 when soils were examined by hand auger borings to a depth of 1 metre at 29 points predetermined by the National Grid. A profile pit was also dug in order to make a more detailed study of soil morphology. Land quality assessments were made using the revised guidelines published by MAFF in 1988.

**1.2 CLIMATE AND RELIEF**

Average annual rainfall is 613 mm and the accumulated temperature above 0°C (January to June) is 1320 day°C. The land is at field capacity for 149 days per year. There is thus no overall climatic limitation on ALC grade.

Slopes are gentle across the site at an average altitude of 50 m a.o.d.

**1.3 GEOLOGY, SOILS AND DRAINAGE**

Soils are formed entirely on drift deposits, mainly reddish boulder clay, derived from Permo-Triassic rocks. Solid strata (Bunter Sandstones) do not occur within one metre of the surface. Soils formed on the boulder clay have medium or heavy clay loam topsoils over slowly permeable, reddish, clayey subsoils which meet the criteria for soil Wetness Class IV. This combination of factors indicates that wetness and workability problems will limit ALC grade across the whole site. None of the soils are limited by droughtiness.

#### 1.4 LAND USE

All the land is in arable use currently growing cereals.

#### 1.5 AGRICULTURAL LAND CLASSIFICATION

Grade	Area (hectares)	% of total area
3a	0.7	2
3b	<u>28.8</u>	<u>98</u>
Total	<u>29.5</u>	<u>100</u>

##### 1.5.1 Subgrade 3a

This small area contains soils with a medium clay loam topsoil over a similarly textured upper subsoil. Below this is a reddish slowly permeable, clayey, lower subsoil. This area falls within Wetness Class III and is limited to subgrade 3a by slight wetness and workability problems.

##### 1.5.2 Subgrade 3b

All other land falls within this subgrade. Topsoils consist of either medium or heavy clay loam over a reddish, clayey, slowly permeable subsoil. The slowly permeable layer is closer to the surface than on the 3a land placing these profiles in wetness class IV. Soil wetness is therefore a more severe limitation and for this reason these soils are limited to subgrade 3b.

#### Reference

MAFF, 1988, Revised guidelines and criteria for grading the quality of agricultural land.

Resource Planning Group  
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