

AGRICULTURAL LAND CLASSIFICATION

NEWBY GRANGE, CROSBY-UPON-EDEN, CUMBRIA
PROPOSED GOLF COURSE

ADAS
LEEDS REGIONAL OFFICE

APRIL 1989

lds.rpg5.Newby.Grange

CONTENTS

1. AGRICULTURAL LAND CLASSIFICATION

MAP

1. AGRICULTURAL LAND CLASSIFICATION

1. AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT NEWBY GRANGE, CROSBY-UPON-EDEN

1.1 INTRODUCTION

The site is located at National Grid Reference NY 455 585 along the banks of the River Eden 2 km downstream from Warwick Bridge. It covers a total area of 55.2 hectares 100% of which is in agricultural use growing cereals.

Survey work was carried out in April 1989 when soils were examined by hand held auger borings at over 50 points predetermined by the National Grid. Pits were dug on each soil type to collect data on soil morphology and obtain samples for laboratory analysis. Land quality assessments were made using the revised guidelines published by MAFF in 1988.

1.2 CLIMATE AND RELIEF

Average annual rainfall is approximately 870 mm and the accumulated temperature above 0°C (January to June) is 1364 day °C. The site is at field capacity for 217 days a year. These factors impose an overall climatic limitation of grade 2.

Slopes are level and never limit the use of agricultural machinery. Average altitude is 16 m a.o.d.

1.3 GEOLOGY, SOILS AND DRAINAGE

Soils on the site are developed upon coarse loamy and sandy river alluvium. Profiles are inherently well drained and are considered to be within Wetness Class I. In most places top and subsoils are coarse loamy and stoneless or only very slightly stony. The survey did identify, however, a few discrete areas where stone content was high enough to limit ALC grade.

Due to the relatively high rainfall and small summer moisture deficits in the area, none of the soils on the site were considered to be droughty.

A different soil type was identified in a small area north of Newby Grange. Here topsoils are fine loamy over a slowly permeable clayey subsoil. Soil wetness is a limitation in this area.

It has been established from well informed local sources that the River Eden last flooded the survey area in 1968. Regularly maintained river banks in the area have minimised the possibility of future flooding. As a result the site has not been downgraded on flooding risk.

1.4 AGRICULTURAL LAND CLASSIFICATION

1.4.1 Grade 2 (50.7 hectares; 92% of the site area)

The vast majority of the site contains medium and fine sandy loam topsoils over similar or slightly lighter unmottled subsoils. All profiles are within Wetness Class I and at the most very slightly stony. The over-riding climatic limitation in the area of grade 2 is the only factor preventing these easily worked fertile soils from being placed in a higher grade.

1.4.2 Subgrade 3a (3.3 hectares; 6% of site area)

West of Newby Grange and south of Holme Cottage are two small areas containing moderately stony topsoils and shallow gravelly subsoils. This is likely to cause cultivation and droughtiness problems and for these reasons those areas have been limited to subgrade 3a.

Remaining area of subgrade 3a near Newby Grange has a heavier textured slowly permeable lower subsoil which is likely to increase soil wetness especially in winter.

1.4.3 Subgrade 3b (1.2 hectares, 2% of site area)

The small area graded 3b contains fine loamy topsoils over clayey slowly permeable subsoils. Again soil wetness is limiting but to a greater extent than on the 3a land.

Resource Planning Group
April 1989