

AGRICULTURAL LAND CLASSIFICATION
MELTON MOWBRAY LOCAL PLAN, LEICESTERSHIRE

1.0 INTRODUCTION

1.1 The site, an area of 24.6 hectares forms part of the Melton Mowbray Local Plan. The Cambridge based ADAS Statutory Unit carried out a detailed Agricultural Land Classification of the site in July 1992 at a survey density of approximately 1 boring per hectare. These borings were supplemented by a soil inspection pit in order to assess subsoil conditions.

1.2 On the published Agricultural Land Classification Map sheet No 122 (Provisional, scale 1:63,360, MAFF 1972) the site is mapped as grade 2 with a small area of land predominantly in urban use. The current survey was undertaken to provide a more detailed representation of the agricultural land quality.

2.0 PHYSICAL FACTORS AFFECTING LAND QUALITY

Climate

2.1 Climate data for the site was obtained from the published agricultural climatic dataset (Met Office 1989). This indicates that the site average annual rainfall is 636mm (25.7"). This data also indicates that the field capacity days are 136 and moisture deficits are 104mm for wheat and 93mm for potatoes. These climatic characteristics do not impose any climatic limitation on the ALC grade of the survey site.

Altitude and Relief

2.2 The survey area comprises a valley side with a north west aspect. The maximum height is 116m AOD (on the north eastern edge) this falls gently westwards towards the industrial area and spoil heaps where the lowest altitude is 100m AOD.

Geology and Soils

- 2.3 The published 1:50,000 scale drift geology map, sheet 142, Melton Mowbray (Geological Survey of England and Wales 1978) shows the majority of the site to comprise boulder clay overlying Jurassic Upper Lias Clays. A small area of Lias-Clay outcrops downslope to the north west.
- 2.4 The Soil Survey of England and Wales mapped the soils of the area in 1983, at a reconnaissance scale of 1:250,000. This map indicates that the whole of the site comprises the Hanslope Association* which is derived from the chalky boulder clay. During the recent field survey a single soil type was identified.
- 2.4.1 The soil comprises calcareous clay topsoils over calcareous clay subsoils which are slowly permeable at depth.

3.0 AGRICULTURAL LAND CLASSIFICATION

- 3.1 The distribution of grades are shown in the table below. The definition of the Agricultural Land Classification grades are included in Appendix 1.

| | ha | % |
|------------------|-------------|------------|
| 3a | 18.1 | 73.6 |
| Non-Agricultural | 5.1 | 20.7 |
| Urban | <u>1.4</u> | <u>5.7</u> |
| TOTAL | <u>24.6</u> | <u>100</u> |

* Hanslope Association - slowly permeable calcareous clayey soils. Some slowly permeable non-calcareous clayey soils.

Subgrade 3a

3.2 All the agricultural land (18.1 ha) has been mapped as subgrade 3a. The soils are slowly permeable from a depth of 40 cms (wetness class III, figure 7, p. 38, MAFF 1988) which combined with the calcareous clay topsoils imposes a moderate limitation on the flexibility of the land for crop cultivation. Consequently a grade of 3a has been assigned to this land.

3.3 Non Agricultural Land

The non-agricultural land comprises woodland strips on the eastern edge of the site, an area of scrub and a wooded spoil heap on the western edge.

N A DONE
ADAS Statutory Unit
Cambridge
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REFERENCES

GEOLOGICAL SURVEY OF ENGLAND AND WALES (1978). Drift edition. Sheet 142
Melton Mowbray 1:50,000 scale.

MAFF (1972). Agricultural Land Classification Map sheet 122 Provisional
1:63,360 scale.

MAFF (1988). Agricultural Land Classification of England and Wales (Revised
Guidelines and Criteria for grading the quality of land). Alnwick.

METEOROLOGICAL OFFICE (1989). Published climatic data extracted from the
agroclimatic dataset, compiled by the Meteorological Office.

SOIL SURVEY OF ENGLAND AND WALES (1983). Sheet 4 Soils of Eastern England
1:250,000 scale.

Appendix 1

Grade 1 - excellent quality agricultural land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly include top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2 - very good quality agricultural land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable crops. The level of yields is generally high but may be lower or more variable than Grade 1.

Grade 3 - good to moderate quality agricultural land

Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

Subgrade 3a - good quality agricultural land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Subgrade 3b - moderate quality agricultural land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of winter range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4 - poor quality agricultural land

Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (eg cereals and forage crops) the yield of which are variable. In most climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

Grade 5 - very poor quality agricultural land

Land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.