

**AGRICULTURAL LAND CLASSIFICATION
NEWARK LOCAL PLAN, SITE AT BALDERTON HOSPITAL
SEMI DETAILED SURVEY**

1.0 INTRODUCTION

- 1.1. The site, an area of 47.4 hectares is being considered for development in the context of Newark Local Plan. The Cambridge based Resource Planning Team carried out a semi-detailed Agricultural Land Classification survey of the site in October 1992 at an auger density of approximately two per hectare. These borings were supplemented by a soil inspection pit in order to assess subsoil conditions. Additional data from adjacent land also assisted in the grading of this area. The semi-detailed nature of this survey means that grade boundaries may be subject to slight revision following a detailed survey.
- 1.2. On the published Agricultural Land Classification Map sheet No. 113 (MAFF 1974) the site is mapped as grade 3 with a small area of non-agricultural land. 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 extrapolated from data in the published Agricultural Climatic Dataset (Meteorological Office 1989). This indicates that the site average annual rainfall is 579mm (22.8"). This data also indicates that the field capacity days are 111 and moisture deficits are 118 mm for wheat and 113 mm 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 is gently undulating and lies at approximately 20m AOD. Neither gradient nor altitude impose a limitation to the ALC grade.

Geology and Soils

- 2.3 The published 1:50,000 scale solid and drift geology map, sheet 127 (Geological Survey of England and Wales 1972) shows the whole area to be covered by Jurassic Lower Lias Clay with shale and thin Limestone.
- 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 Evesham 2 Association* which is derived from clay deposits. During the recent field survey a single clayey soil type was identified.
- 2.5 The soils comprise calcareous and non calcareous very slightly stony clay and clay loam topsoils. There are small areas of moderately stony topsoils which are possibly associated with land reclaimed from the disused airfield infrastructure. Subsoils are clay or occasionally sandy clay and generally have a negligible stone content. The calcareous nature of these profiles varies with location.

3.0 AGRICULTURAL LAND CLASSIFICATION

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

AGRICULTURAL LAND CLASSIFICATION		
Grade	ha	%
3a	20.2	42.6
3b	24.8	52.3
Urban/Non-Agricultural	<u>2.4</u>	<u>5.1</u>
TOTAL	47.4	100.0

* Evesham 2 Association - Slowly permeable calcareous clayey soils, some slowly permeable seasonally waterlogged non-calcareous clayey and fine loamy or fine silty over clayey soils.

Subgrade 3a

- 3.3 The subgrade 3a land corresponds to the more workable calcareous clay and lighter textured, medium clay loam topsoils described in paragraph 2.5. Subsoils are slowly permeable from within 40 cm, consequently these soils are assessed as wetness class III, grade 3a.

Subgrade 3b

- 3.4 Land graded 3b corresponds to the decalcified clayey soils. These are slowly permeable immediately below the topsoil (Wetness Class III) and this combined with the clay topsoil textures imposes a moderately severe limitation on the workability of land. Consequently a grade of 3b has been assigned to this land.

Non Agricultural Land

- 3.5 There are three small areas of abandoned land on the site which are mapped as non-agricultural land. Cross Lane, the derelict farm and the farm cottages adjacent to the A6065 are mapped as urban.

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REFERENCES

GEOLOGICAL SURVEY OF ENGLAND AND WALES (1972). Solid and Drift edition. Sheet 127 Grantham, Provisional 1:50,000 scale.

MAFF (1974). Agricultural Land Classification Map sheet 113 Provisional 1:63,360.

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 levels 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.