

AGRICULTURAL LAND CLASSIFICATION

KENT MINERALS PLAN

SITE 7, SPRING WOOD, CHARING HEATH

Background

The site lies just to the east of the village of Charing Heath in Kent. The site is bounded to the north by the Maidstone to Ashford railway line, to the west by Charing Heath Road, the east by Hook Lane and to the south by Spring Wood and a track.

The site was surveyed using a 110cm Dutch auger with samples being taken at approximately 100m intervals.

Land Use

At time of survey (March 1989) the majority of the site was under cereal cultivation with a small area of pasture to the east of Spring Wood.

Physical Factors Affecting Land Use

Relief

The site lies at approximately 95m OD, rising gently to the west. Gradient was not a significant factor in relation to land quality at this site.

Climate

The average annual rainfall for this area is c.750mm of which c.350mm (46%) falls in the months of April to September inclusive. The average length of growing season is c.250-260 days/annum and the site is not believed to be frost prone or exposed.

Geology and Soils

The Geological Survey of Great Britain Sheet 288 shows all of the site to be underlain by Cretaceous Gault Clay. The Soil Survey of England and Wales Sheet 6 shows all of the site to belong to the Denchworth association (pelo-stagnogleys).

AGRICULTURAL LAND CLASSIFICATION

Appendix A gives a generalised description of the grades used in this classification.

Grade 3c

All of the site falls into this grade. Profiles are typically composed of heavy clay loam topsoils though occasional topsoils of medium clay loam or clay were also noted. Such topsoils typically directly overlie clay in the subsoil, though in occasional profiles heavy clay loam textures were noted to extend to c.50-60cm in the subsoil. Profiles are chiefly limited by poor drainage status (ie the presence of distinct mottling) occurring throughout the soil profile.

Areas of grades

| | |
|---|----------------------|
| Total area of site | 12.95ha |
| Areas primarily in non agricultural use | 0.25ha |
| Total area of agricultural land | 12.70ha |
| Grade 3c | 12.70ha (100% total) |

References

- MAFF 1966 Agricultural Land Classification Tech Bull 11
- MAFF 1976 Agricultural Land Classification of England and Wales
Tech Bull 11/1
- Meteorological Office 1967 Meteorological Survey of East Kent
(Old OS Sheet 173)
- Geological Survey of Great Britain 1976 Sheet 288 (Maidstone)
1:50000
- Soil Survey of England and Wales 1983 Sheet 6 (Soils of South
East England) 1:250000 (plus accompanying memoir)

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DESCRIPTION OF THE GRADES

Grade 1: Land with very minor or no physical limitations to agricultural use. The soils are deep, well drained loams, sandy loams, silt loams or peat, lying on level sites or gentle slopes and are easily cultivated. They retain good reserves of available water, either because of storage properties of the soil or because of the presence of a water table within reach of roots, and are either well supplied with plant nutrients or highly responsive to fertilisers. No climatic factor restricts their agricultural use to any major extent.

Yields are consistently high on these soils and cropping highly flexible since most crops can be grown, including the more exacting horticultural crops.

Grade 2: Land with some minor limitations which exclude it from Grade 1. Such limitations are frequently connected with the soil; for example, its texture, depth or drainage, though minor climatic or site restrictions, such as exposure or slope, may also cause land to be included in this Grade.

These limitations may hinder cultivations or harvesting of crops, lead to lower yields or make the land less flexible than that in Grade 1. However, a wide range of agricultural and horticultural crops can usually be grown, though there may be restrictions in the range of horticultural crops and arable root crops on some types of land in this Grade.

Grade 3: Land with moderate limitations due to the soil, relief or climate, or some combination of these factors which restrict the choice of crops, timing of cultivations, or level of yield. Soil defects may be of structure, texture, drainage, depth, stoniness or water holding capacity. Other defects, such as altitude, slope or rainfall, may also be limiting factors.

The range of cropping is comparatively restricted on land in this Grade. Only the less demanding horticultural crops can be grown and, towards the bottom of the Grade, arable root crops are limited to forage crops. Grass and cereals are thus the principal crops; land in the middle range of the Grade is capable of giving reasonable yields under average management. Some of the best quality permanent grassland may be placed in this Grade where the physical characteristics of the land make arable cropping inadvisable.

Grade 4: Land with severe limitations due to adverse soil, relief or climate, or a combination of these. Adverse soil characteristics include unsuitable texture and structure, wetness, shallow depth, stoniness or low water holding capacity. Relief and climatic restrictions may include steep slopes, short growing season, high rainfall or exposure.

Land in this Grade is generally only suitable for low output enterprises. A high proportion of it will be under grass, with occasional fields of oats, barley or forage crops.

Grade 5: Land with very severe limitations due to adverse soil, relief or climate, or a combination of these. The main limitations include very steep slopes, excessive rainfall and exposure, poor to very poor drainage, shallow depth of soil, excessive stoniness, low water holding capacity and severe plant nutrient deficiencies or toxicities.

Grade 5 land is generally under grass or rough grazing, except for occasional pioneer forage crops.

AGRICULTURAL LAND CLASSIFICATION

KENT MINERALS PLAN

Site 7, Spring Wood, Charing Heath

GRADING OF THIS SITE UNDER THE REVISED AGRICULTURAL LAND CLASSIFICATION

Climate

Soils are at Field Capacity for 155 days/annum with the median accumulated temperature above zero degrees C for the period January to June inclusive being 1397 day degrees.

Agricultural Land Classification

Appendix 1 gives a generalised description of the grades used in this classification.

Grade 3b

All of the site falls into this grade. Profiles are typically composed of heavy clay loam topsoils, though occasional topsoils of medium clay loam or clay were also noted. Such topsoils most typically directly overlie clay in the subsoil though in occasional profiles heavy clay loam was noted to extend to c.50-60cm in the subsoil. Profiles at this site fall into Soil Wetness Class 4 which coupled with their topsoil textures in this range of Field Capacity Days has resulted in their allocation to this grade on grounds of wetness and relatively difficult workability.

Areas of Grades

| | |
|---|----------------------|
| Total area of site | 12.95ha |
| Areas primarily in non agricultural use | 0.25ha |
| Total area of agricultural land | 12.70ha |
| Grade 3b | 12.70ha (100% total) |

References (further to those in main text)

MAFF 1988 Agricultural Land Classification, revised guidelines and criteria for grading the quality of agricultural land.
Meteorological Office (publ due 1989) Climatic data sets for Agricultural Land Classification.

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APPENDIX 1

DESCRIPTION OF THE GRADES AND SUBGRADES

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 includes 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 root crops. The level of yield 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 a wider 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 yields of which are variable. In moist 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.