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SHEPWAY LOCAL PLAN
SITE 38: BREZZETT, KENT
AGRICULTURAL LAND CLASSIFICATION
ALC MAP & REPORT
SEPTEMBER 1993

**SHEPWAY LOCAL PLAN
SITE 38: BRENZETT, KENT
AGRICULTURAL LAND CLASSIFICATION REPORT**

1.0 Summary

1.1 In September 1993 a detailed Agricultural Land Classification (ALC) survey was made on 0.6 hectares of land on the north western edge of the village of Brenzett in Kent.

1.2 The work was conducted under ADAS sub-contracting arrangements by Nick Duncan and Associates and was in response to a commission by MAFF's Land Use Planning Unit to provide information on the quality of agricultural land affected by the potential inclusion of this land in the Shepway District Local Plan.

1.3 The classification has been made using MAFF's revised guidelines and criteria for grading the quality of agricultural land. These guidelines provide a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on its use for agriculture.

1.4 Two soil borings and one soil pit were examined.

1.5 All of the site has been classified as Subgrade 3B due to a soil wetness and workability limitation. There is evidence of seasonal waterlogging in the soil profile caused by poor drainage through the clay subsoils. This combines with the heavy nature of the topsoils to restrict the workability of this land.

1.6 The ALC information is shown on the attached map. The information is presented at a scale of 1:5,000; it is accurate at this level but any enlargement would be misleading. This map supercedes any previous ALC information for this site.

1.7 A general description of the grades, sub-grades and land-use categories identified during the survey is provided as an appendix. The main classes are described in terms of the type of limitation that can occur, the typical cropping range and the expected level and consistency of yield.

2.0 Climate

2.1 The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.

2.2 The main parameters used in the assessment of an overall climatic limitation are average annual rainfall, as a measure of overall wetness, and accumulated temperature (degree days Jan-June), as a measure of the relative warmth of a locality.

2.3 A detailed assessment of the prevailing climate was made by interpolation from a 5km gridpoint dataset (Met. Office 1989). The details are given in the table below and these show that there is no overall climatic limitation affecting the site. However climatic factors do interact with soil properties to influence soil wetness and droughtiness limitations. At this locality the field capacity days are low and the moisture deficits correspondingly high in a regional context thus increasing the likelihood of soil droughtiness.

2.4 No local climatic factors such as exposure or frost risk affect the site.

Table 2 : Climatic Interpolation

Grid Reference :	TR 001 271
Altitude (m) :	005
Accumulated Temperature (days) :	1508
Average Annual Rainfall (mm) :	678
Field Capacity (days) :	139
Moisture Deficit, Wheat (mm) :	128
Moisture Deficit, Potatoes (mm) :	127
Overall Climatic Grade :	1

3.0 Relief

3.1 The site lies at an altitude of 5m AOD and is flat

4.0 Geology and Soil

4.1 British Geological Survey (1978), sheets 305 and 306, Folkestone and Dover shows the site to be underlain by Marine Alluvium Clay.

4.2 The soil type for this site is entirely Wallsea 2 Association as shown on the Soil Survey map of South East England (SSEW, 1983, 1:25,000). These soils are described as 'deep stoneless clayey soils, calcareous in places. Some deep calcareous silty soils. Flat land often low ridges giving a complex soil pattern. Groundwater controlled by ditches and pumps.' (SSEW).

5.0 Agricultural Land Classification

5.1 The details of the area measurements for each grade and the distribution of each grade is shown on the attached ALC map.

5.2 The location of the soil observation points are shown on the attached sample point map.

5.3 Subgrade 3b

The soils found in this survey comprise a non-calcareous silty clay topsoil over a yellowish brown silty clay upper subsoil which has common faint ochreous mottles. Below approximately 45-60cm depth the silty clay becomes slightly greyer with distinct ochreous mottles and the soil structure becomes coarser. Grey mottling becomes evident below 60cm and the soils are considered slowly permeable at this depth. The subsoil is calcareous throughout whilst the upper subsoil is also slightly porous due the presence of approximately 1% biopores. These soils have been assessed as Wetness Class II and with a non-calcareous silty clay topsoil texture, in this climatic regime , the land has been graded as 3b on wetness and workability limitations. The opportunities for trafficking, land work and grazing by livestock are significantly limited as a result and the soil wetness also adversely affect crop growth and development.

ADAS REFERENCE : 2010/188/93
MAFF REFERENCE : EL 20/109

Resource Planning Team
Guildford Statutory Group
ADAS Reading

APPENDIX I

DESCRIPTION OF THE GRADES AND SUB-GRADES

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 or horticultural crops can usually be grown but on some land on 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. When more demanding crops are grown yields are generally lower or more variable than on land in grades 1 and 2.

Sub-grade 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.

Sub-grade 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 the 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.

Urban

Built-up or 'hard' uses with relatively little potential for a return to agriculture : housing, industry, commerce, education, transport, religious buildings, cemeteries. Also, hard-surfaced sports facilities, permanent caravan sites and vacant land; all types of derelict land, including mineral workings which are only likely to be reclaimed using derelict land grants.

Non-agricultural

'Soft' uses where most of the land could be returned relatively easily to agriculture, including : private parkland, public open spaces, sports fields, allotments and soft-surfaced areas on airports/airfields. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

Woodland

Includes commercial and non-commercial woodland.

Agricultural Buildings

Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses. Temporary structures (eg. polythene tunnels erected for lambing) may be ignored.

Open Water

Includes lakes, ponds and rivers as map scale permits.

Land Not Surveyed

Agricultural land which has not been surveyed.

Where the land use includes more than one of the above, eg. buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will be shown.

APPENDIX II

REFERENCES

- * British Geological Survey (1978), Sheet No.305 & 306, Folkestone and Dover A,; 1:50,000
- * MAFF (1988), Agricultural Land Classification of England And Wales : revised guidelines and criteria for grading the quality of agricultural land.
- * Meteorological Office (1989), Climatological Data for Agricultural Land Classification.
- * Soil Survey of England and Wales (1983), Sheet No.6, Soils of South East England, 1:250,000. And accompanying legend.

APPENDIX III

DEFINITION OF SOIL WETNESS CLASSES

Wetness Class I

The soil profile is not wet within 70cm depth for more than 30 days in most years.

Wetness Class II

The soil profile is wet within 70cm depth for 31-90 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 90 days, but not wet within 40cm depth for more than 30 days in most years.

Wetness Class III

The soil profile is wet within 70cm depth for 91-180 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 180 days, but only wet within 40cm depth for 31-90 days in most years.

Wetness Class IV

The soil profile is wet within 70cm depth for more than 180 days but not wet within 40cm depth for more than 210 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 40cm depth for 91-210 days in most years.

Wetness Class V

The soil profile is wet within 40cm depth for 211-335 days in most years.

Wetness Class VI

The soil profile is wet within 40cm depth for more than 335 days in most years.)

(The number of days is not necessarily a continuous period. 'In most years' is defined as more than 10 out of 20 years.)