

**AGRICULTURAL LAND CLASSIFICATION
NORTH BEXHILL STRATEGIC FRAMEWORK
PROPOSED DEVELOPMENT ZONE -
ASHDOWN BRICKWORKS**

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1. **SUMMARY**

- 1.1. In August 1992, an Agricultural Land Classification (ALC) survey was carried out on 9.84 ha of land in 3 blocks close to Ashdown brickworks. ADAS was commissioned by MAFF to determine land quality affected by the proposal to include this site for development as part of the North Bexhill Strategic Framework.
- 1.2. The survey work was carried out by members of the Resource Planning Team within the Guildford Statutory Group at a detailed level of approximately 1 boring per hectare. A total of 7 auger borings were made and the site was graded using MAFF's revised guidelines and criteria for grading the quality of agricultural land (MAFF, 1988). These guidelines provide a framework for classifying land according to the extent to which its physical and chemical limitations impose long term limitations on its agricultural use. At the time of survey the three blocks of land were in grass.
- 1.3. The distribution of the grades is shown on the attached ALC map and the area and extent is given in the table below. The map has been drawn at a scale of 1:10,000; any enlargement of this would be misleading. The area was previously surveyed by MAFF in 1984. This more recent survey supersedes the earlier work.

Distribution of Grades and Subgrades

<u>Grades</u>	<u>Area (ha)</u>	<u>% total agricultural area</u>
3a	2.86	47
3b	3.22	<u>53</u>
Non-Ag*	0.79	100
Urban	0.45	
Agricultural Buildings	0.1	
Not surveyed	<u>2.42</u>	
Total Area of site	<u>9.84</u>	

*Bexhill Cemetery

- 1.4. Land on this site has been graded 3a and 3b. The southern block of land was not surveyed as access could not be obtained at the time of survey. Land graded 3a represents deep loamy soils with moderate wetness limitations, whilst areas graded 3b comprise either shallow soils developed over soft sandstones or poorly drained clayey soils. Some localised areas also have gradient limitations causing land to be graded no higher than 3b.

2. PHYSICAL FACTORS AFFECTING LAND QUALITY

Climate

- 2.1. Estimates of climatic variables were obtained by interpolation from a 5 km grid database (Met. Office, 1989) for representative locations in the survey area.

Climatic Interpolation

Grid Reference	TQ722098	TQ725097
Altitude (m A.O.D)	30	45
Accumulated Temperature (°days, Jan-June)	1494	1477
Average Annual Rainfall (mm)	772	776
Field Capacity Days	161	162
Moisture Defecit (wheat) (mm)	120	115

- 2.2. There is no overall climatic limitation but climatic factors will interact with soil factors to influence soil wetness and droughtiness limittions. In particular, the moisture defecits are comparitively high due to the proximity of the site to the coast. This will increase the risk of soil droughtiness.

2.3. Relief

- 2.4. The survey areas lie in 3 blocks lying either side of valley feature which extends southwestwards the Brickworks area. Maximum altitudes within the survey area are around 45 m A.O.D on upper valley slopes on both sides of the valley, falling to around 30-35 m A.O.D at its bottom. Gradients on the valley sides attain a maximum of 7-8° immediately east of Scallets Wood; elsewhere gradients are typically within the range 3-6°.

2.5. Geology and Soils

- 2.6. The published geological map sheet covering the site (Sheet 320/321, Hastings and Dungeness; Geological Survey G.B, 1980) maps the survey area as Tunbridge Wells Sand.
- 2.7. The Published Soil Survey map at 1:250,000 scale (SSEW, 1983) shows the area as the Curtisden Association. Such soils are described in the accompanying legend as "silty soils over siltstone with slowly permeable subsoils with slight seasonal waterlogging. Some similar well drained coarse loamy soils over sandstone".
- 2.8. Detailed inspection of soils on the site indicate that the majority are derived from fine grained sandstones and siltstones. Some are shallow and freely draining, whilst others have dense fine loamy subsoils which are slowly permeable. The majority of soils within

the survey area have a droughtiness limitation. Some also have a subsidiary wetness restriction.

2.9. AGRICULTURAL LAND CLASSIFICATION

2.10. Land within the survey area has been graded 3a and 3b. The southern block of land was not surveyed as access could not be gained at the time of survey. Areas of non-agricultural land represent Bexhill Cemetery whilst urban land includes dwellings and gardens at Turkey Farm.

2.11. Grade 3a

2.12. Land of this quality occurs on middle and upper valley slopes and comprises the deeper soils over sandstone/siltstone. Topsoils are typically medium silty clay loam over similar upper subsoils which rest directly over soft fine grained sandstone or siltstone at around 45-60 cm. Where deeper, subsoils tend to be finer textured (heavy clay loam) and slowly permeable, with coarser horizons derived from dense weathered sandstone occurring from 75-80 cm+. Gleying is common from 25-40 cm in these deeper profiles placing such soils in wetness class II or III depending upon the depth to slowly permeable layers. However, most land in the 3a mapping unit is limited to this quality by droughtiness with occasional profiles having an overall wetness limitation.

2.13. Grade 3b

2.14. Areas of 3b land to the north of Turkey Farm and immediately adjoining the Cemetery are associated with shallow well drained soils overlying fine grained sandstone. These have medium silty clay loam topsoils which either rest directly over weathered sandstone or have a thin medium silty clay subsoil above the sandstone. These soils are limited by droughtiness due to their relatively low available water capacity in an area with comparatively high crop adjusted moisture deficits.

2.15. Lower Valley slopes to the north of Scallets Wood are so graded due to the occurrence of heavy less well drained soils. The medium clay loam topsoils rest over gleyed and slowly permeable heavy clay loam subsoils to 75-85 cm placing them into wetness class IV. Dense coarser textured horizons believed to be derived from sandstone/siltstone are underlying.

2.16. A small area of moderately sloping land immediately east of Scallets Wood is also included in grade 3b due to gradients of 7-8°.

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Reading

SOURCES OF REFERENCE

GEOLOGICAL SURVEY OF GREAT BRITAIN (1980) 1:50,000 scale Solid and Drift Edition Geological Map Sheet No 320/321 (Hastings and Dungeness)

MAFF (1988) Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land.

METEOROLOGICAL OFFICE (1989) Climatological Datasets for Agricultural Land Classification.

SOIL SURVEY OF ENGLAND AND WALES (1983) 1:250,000 Scale Soil Map of England and Wales : Sheet 6 (SE England)