AGRICULTURAL LAND CLASSIFICATION
KINGS LYNN AND WEST NORFOLK LOCAL PLAN
RIVERSIDE ESTATE NORTH

1.0 INTRODUCTION

1.1 This 21.3 ha site was surveyed by ADAS Statutory Group in October 1994 in connection with the Kings Lynn and West Norfolk Local Plan. A total of 19 auger borings were made on a structured 100 m grid basis using a hand held auger, and this data was supplemented by information from one soil inspection pit.

1.2 At the time of survey, the site was under winter cereals.

1.3 On the published provisional Agricultural Map Sheet 124 (MAFF, 1972) the site is shown as grade 2. Since these maps are of a reconnaissance nature, designed primarily for strategic planning purposes, the current survey was undertaken to provide more detailed information on land quality.

2.0 PHYSICAL FACTORS AFFECTING LAND QUALITY

Climate

2.1 Site specific climatic information has been obtained by interpolating data contained in the published 5 km grid dataset (Met. Office 1989). This information shows that the site has an average annual rainfall of 626 mm, and an accumulated temperature (January to June) of 1431 °C. The moisture deficit is 114 mm for wheat and 108 mm for potatoes, and the site is at field capacity for 120 days each year. These figures do not impose any limitations to land quality.

Altitude and Relief

2.2 The site lies on flat land near the river Great Ouse at an altitude of 5 m AOD. Slopes are negligible, and neither altitude nor relief limit land quality.

Geology and Soils

2.3 The published 1:50 000 scale geology map (GSEW 1978) shows the entire site to comprise marine alluvium deposits. The reconnaissance scale (1:250 000) soils map includes the site within the urban area of Kings Lynn, but indicates soils of the Wisbech Association (*1) occurring to the north and the Blacktoft Association (*2) occurring to the immediate north east of the site.

2.4 One main soil type was found on site derived from the alluvial deposits. Profiles comprised sandy silt loam (occasionally silt loam) topsoils over subsoils of typically loamy fine sand or sandy silt loam. Occasional thin laminations of clay were present in the subsoils of some profiles. The profiles were well or moderately well drained (wetness classes I and II), stoneless and calcareous throughout. Although mottling and occasional gleying is present, this is likely to be a relic feature reflecting the soil moisture regime prior to pump drainage of the fens.

2.5 A slightly heavier variant of the above soil type exists in the extreme north west corner of the site. Profiles comprise medium clay loam or medium silty clay loam topsoils, which overlie similar upper subsoils. These typically become lighter at depth in the profile, (sandy silt loam or loamy fine sand), and are stoneless and calcareous throughout. Wetness class is assessed as I or II.

3.0 AGRICULTURAL LAND CLASSIFICATION

3.1 The definitions of ALC grades are given in Appendix 1.

3.2 The site has been graded predominantly grade 1 with a small area of urban land in the extreme south west. For area measurements see the table below.

AGRICULTURAL LAND CLASSIFICATION

Grade	ha	%
1	19.7	92.5
Urban	1.6	7.5
TOTAL	21.3	100

Grade 1

3.3 All agricultural land on the site has been graded 1 and corresponds to both soil types described in paragraphs 2.4 and 2.5. These well-drained profiles have high moisture reserves which ensure that available water is more than adequate to meet the demands of a growing crop throughout the year. Consequently the land has no limitations to agricultural use and is classed as excellent quality agricultural land.

Urban

3.4 The extreme south west of the site is currently part of a factory site and has been classed as urban.

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REFERENCES

GEOLOGICAL SURVEY OF ENGLAND AND WALES, 1978. Sheet 145 Solid and drift edition. 1:50 000 scale.

MAFF, 1972. Agricultural Land Classification Map Sheet 124 Provisional 1:63 360 scale.

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

METEOROLOGICAL OFFICE, 1989. Published 5 km agroclimatic dataset.

SOIL SURVEY OF ENGLAND AND WALES, 1983. Sheet 4 "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 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 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.